English Language Arts Curriculum

Sussex Montessori School

The literacy curriculum is built around several research based curriculum and standards documents including:
The National Common Core Standards
The New Standards Primary Literacy Committee's standards for Reading and Writing (1999)
The Continuum of Literacy Learning by Fountas & Pinnell (2008)
School-wide Reading Assessment in a Montessori Program (Zankowsky, 2006)

Thank you to the Elementary Workshop Montessori School, First State Montessori Academy and Wilmington Montessori School for providing wisdom and input to the development of this curriculum.

Table of Contents

Introduction to the Language Arts Curriculum Framework

In the Language Arts Curriculum, the teacher must be knowledgeable of the continuum of learning for reading, writing, and speaking/listening. The Montessori Curriculum Framework provides teachers with the goals for reading against the developmental stages of reading development from the phonetic cue reader to the proficient reader. A similar model is used for speaking/listening and writing. Early in the school year, teachers use a variety of assessments including writing samples, the DRA, DIBELS, and the TROLL to determine where children are on the learning continuum in each area. The Curriculum Framework provides the teacher with instructional strategies that are used in small group and individual lessons/units using hands on Montessori materials, leveled books, and writing and reading mini/guided lessons to support children as appropriate to their developmental age level. These lessons provide opportunities for teachers to observe children and to evaluate their progress toward the goals for the three components of the Language Arts. The Framework provides various formative and summative assessment tools for teachers to confirm their observations, and make adjustments to instruction as a result of those observations. Finally, the Framework provides indicators of when a child is off-track in each of the three areas of development. The RTI model of assessment/ instruction allows teachers to adjust instructional strategies and more closely follow the progress of children who are off track as readers.

The development of the child in the Language Arts is embedded within the context of a classroom that supports the best educational practices. It is generally accepted that the workforce of the future will require skills such as creative and innovative thinking, comfort with ideas and abstraction, as well as a global worldview and vibrant imagination. Research (Adams, 2005) shows that children develop these skills in classrooms designed to promote intrinsic motivation; that provide choice, time for focus and deep study in areas of interest; that provide opportunities to experiment and discover; and develop a focus on "what did you learn?" rather than "how well did you do?"

The overall Montessori Program is designed to support the following:

- Focus on **big ideas and essential questions** with **extended work periods** that allow for **depth of understanding** and **habits of mind**
- **Child-centered inclusive** learning environments that utilize **differentiated instruction** and **flexible grouping** to meet individual children's learning needs
- **Classroom-based assessment** and observation that **informs instructional decision making** as the basis for **RTI**
- **Hands-on interactive** curricular materials and classroom environment that supports children developing from **concrete to abstract thinking**
- **Academic development** supported by an emphasis on the **social/ emotional development** of the child within a **multi-age community of learners**
- **Collaborative learning** and **community service** leading to mutual respect of others and the development of the child's **global perspective**

Performance indicators in the curriculum marked with an * come from Fountas &Pinnell (2008) *The Continuum of Literacy Learning*. Common Core standards are coded and integrated into the framework. Performance indicators that are not coded or marked are from WMS' *Reading Curriculum, Assessment, and Instruction Guide.*

References

Adams, K. (2005). "Sources of innovation and creativity". A paper commissioned by the National Center on Education and the Economy. Accessed 10/26/2011 at http://www.fpspi.org/Pdf/InnovCreaitivy.pdf.

Montessori, Maria. (1991). *The Advanced Montessori Method : Scientific pedagogy as applied to the education of children from seven to eleven years.* Oxford, England :Clio Press.

Montessori, Maria. (1973). *The Advanced Montessori Method : Volume 2.* New York : Schocken Books.

Zankowsky, Linda S. (2006) *School-wide Reading Assessment in a Montessori Program.* An Educational Position Paper submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Education.

K-1st (Ages 5-7)

English Language Arts Curriculum

The Center for Montessori Advancement
at
Wilmington Montessori School

This document is the core of the curriculum plan for the child as described above. This document allows teachers to identify assessments to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

K-1st (Ages 5-7)
English Language Arts Curriculum Continua for Phonetic Cue and Controlled Word Recognition Readers
Guided Reading Levels A, B, C, D, E, G, H, I from Fountas & Pinnell

Foundational Skills

Print Concepts
Phonological Awareness
Phonics and Word Recognition

Enduring Understandings	Essential Questions	Transfer Goals
Good readers use letters, sounds, and specific sequences of letters to read printed words on the page. Good readers use context clues to solve unknown words while focusing on understanding text. Good readers use their knowledge of prefix, suffix, and root word meanings to determine the meaning of unknown words. Authors use specific language and word choice to create meaning when they write. Good readers learn words from wide daily reading Good readers recognize when word meaning is unknown and are able to use a variety of strategies to determine the word meaning.	How do sounds and high frequency words help us to read? How is written language different from spoken words? How is it the same? What are different strategies I can use to figure out the meaning of word that I don't know?	At end of multi-year (K/1) cycle children will: Integrate their knowledge of concepts of print, phonemic awareness, phonics, self-correcting, vocabulary, and fluency to read poetry and prose at Level H/I books. **CCK/1RL10** Demonstrate age appropriate reading habits. Use this knowledge to read at an appropriate level: Books for pleasure Books, magazines, websites, and other informational texts for school learning and personal interests Their personal writing and classmates writings Environmental print in the classroom and larger community Simple instructions Poetry

Targeted Knowledge and Skills

Print Concepts

Demonstrate understanding of the organization and basic features of print. **CCKRF1/CC1RF1**

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Recognize that spoken words are represented in written language by specific sequences of letters (i.e. print is used to construct meaning). **CCKRF1b** Understand that words are separated by spaces in print. **CCKRF1c** Recognize and name all upper- and lowercase letters of the alphabet. **CCKRF1d** Produce the sounds of all letters of the alphabet Follow words from left to right, top to bottom (return sweep), and page by page. **CCKRF1a**	Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation). **CC1RF1a** Explain how books work and that print has meaning Appreciate text as a resource for pleasure and learning

Instructional Strategies and/or Activities

Small Group Guided Reading, Shared Reading, Read Aloud and Individual Lessons focusing on:

- Modeling how to track print, matching finger/print/voice
- Modeling how readers move through text ("I know to s tart up here and on this side")

Understanding print has meaning

Being aware of text directionality, return sweep, page to page
Developing concept of "word" (groups of letters surrounded by white space correspond to individual words in speech)
Appreciating text as resource for pleasure and learning
Using text, identify one letter or sound, two letters, one word, two words

Phonological Awareness

Demonstrate understanding of spoken words, syllables, and sounds (phonemes). **CCKRF2** and **CC1RF2**

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Recognize and produce rhyming words. **CCKRF2a** Recognize words that don't rhyme – oddity tasks. Count, pronounce, blend, and segment syllables in spoken words. **CCKRF2b** Blend and segment onsets and rhymes of single-syllable spoken words. **CCKRF2c** Segment individual sounds in single-syllable words by saying each sound aloud. (f-u-n) Segment multi-syllable words (di-no-saur) Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in three phoneme (consonant-vowel-consonant, or CVC) words.* (This does not include CVCs ending with /l/, /r/, or /x/.) **CCKRF2d** Add or substitute individual sounds (phonemes) in simple, one-syllable words to make new words. **CCKRF2e**	Distinguish long from short vowel sounds in spoken single-syllable words. **CC1RF2a** Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. **CC1RF2b** Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. **CC1RF2c** Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes). **CC1RF2d**

Instructional Strategies and/or Activities

Small Group Guided Reading, Read Aloud and Individual Lessons focusing on:

Manipulating sounds in speech.
Identifying rhyming words, rhythm, repetition.
Blending- syllables, onset, rhyme, phonemes.

Segmenting- syllables, onset, rhyme, phonemes.
Rhyming recognition and producing rhymes.
Phonemes- isolation, substitution, deleting.

Phonics and Word Recognition

Know and apply grade-level phonics and word analysis skills in decoding words. **CCKRF3** and **CC1RF3**

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the primary or the most frequent sound for each consonant. **CCKRF3a**
Associate the long and short sounds with common spellings (graphemes) for the five major vowels. **CCKRF3b**
Read a minimum of 20 common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does). **CCKRF3c**
Distinguish between similarly spelled words by identifying the sounds of the letters that differ. **CCKRF3d**
Read signs, labels, logos (environmental print) without the context of the sign
Identify first sound, making an educated guess
Use letter-sound knowledge to read and write simple CVC words

Know the spelling-sound correspondences for common consonant digraphs. **CC1RF3a**
Decode regularly spelled one-syllable words. **CC1RF3b**
Know final -e and common vowel team conventions for representing long vowel sounds. **CC1RF3c**
Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. **CC1RF3d**
Decode two-syllable words following basic patterns by breaking the words into syllables. **CC1RF3e**
Read words with inflectional endings. **CC1RF3f**
Recognize and read grade-appropriate irregularly spelled words. **CC1RF3g**

Instructional Strategies and/or Activities

Small Group Guided Reading, Shared Reading, Read Aloud and Individual Lessons focusing on Phonics and Other Activities

Phonics (in conjunction with spelling continuum):

- Building on knowledge of letter names/sounds (preparation for decoding and spelling).
- Build bank of high frequency words.
- Use sound/symbol knowledge to sound out phonetic words (short vowels, vowel teams, blends, digraphs, silent “e”, and common suffixes such as er, ing, ed).
- Recognize word families with simple vowel patterns (cat, rat, etc.).
- Look for familiar patterns in longer words.
- Build knowledge of spelling patterns and “chunking skills” to decode words.
- Use segmenting/blending to solve new words.
- Letter sound associations in context.
- Rhyming, rhythm, and repetition.
- Recognition of environmental print.
- Use of picture clues to confirm meaning of words.
- Internalize how words are spelled and pronounced in memory.
- Recognize growing number of words with greater automaticity.

- Environmental labeling (grocery store, post office, etc.).
- I Spy and rhyming games.
- Split-label matching.
- Moveable alphabet, initial sounds with objects/pictures, building CVC words/word families.
- Building sight word vocabulary.
- Word ladders with moveable alphabet (short vowels, vowel teams, and silent “e”).
- Dolch word lists (read, record).
- Read/record word wall.
- Connect moveable alphabet and phonogram lessons, grammar studies to text.

Concurrent Activities and Shelf Work:

- Phonemic awareness games substituting beginning, ending, or medial sounds.

Comprehension: Thinking WITHIN, BEYOND, and ABOUT the Text

Searching for and Using Information -Summarizing-Predicting-Inferring-Making Connections (Personal, World, Text)-Synthesizing-Analyzing-Critiquing

Enduring Understandings (Within Text)

Authors use text features to help readers identify the purpose of the text and help readers make meaning from the text.
Authors use similar story elements in their writing and these elements can help readers make sense of the text.
Authors of literary texts include details that help readers make sense of stories.
Good readers create an effective recounting or retelling of literary text(s) that includes key ideas and details.
Authors include key details in informational and literary texts in order to help readers make sense of the text and to help a reader ask and answer questions about the text.
Good readers use key details in an informational text to identify the main topic.
Good readers use strategies to help them understand what they are reading.
Good readers stop to see if what they are reading makes sense and use fix-up strategies when it doesn't make sense.

Enduring Understandings (Beyond Text)

Readers can use their own experiences to build their understanding of what they read.
Good readers use strategies to help them make inferences to construct meaning about what they are reading.
Good readers use both the text and the illustrations to make sense of the text.
Good readers make connections between individuals, events, ideas, and information to better understand informational text.
Sometimes the author makes his/her meaning plain; often, however, a reader must dig beneath the surface of the text to find meaning.

Enduring Understandings (About Text)

Different readers may respond to the same text in different ways. The better response provides greater insight into the text.
Reading for meaning requires readers to be active – not just believing the author.
Authors and illustrators have different roles creating a text, and each contributes meaning to the text.
Authors provide reason/examples in informative text to support their points and ideas.
Good readers identify the reasons/examples an author uses to support points and ideas to enhance their understanding of an informative text.

Essential Questions (Within Text)

Do the words make sense?
How does the purpose of the writing contribute to the author's choice of words?
How do texts differ? How are they the same? How should I read different types of text?
What is the author telling us?
What does a reader gain by retelling a story?
How can I use text features to locate key facts and information in the text?
Why is it important to know who is telling the story? Why does it matter?
How do illustrations and other graphics help me understand what I read?

Essential Questions (Beyond Text)

What can I use to help me make predictions?
How do the connections you make to the story help you better understand the story?
Have you run across this idea before in another story or text? So what? Why does it matter?
What do readers do when they don't understand?

Enduring Understandings (About Text)

What is the author saying in the text? How do I know?
Do I agree or disagree with the author? Why?
What is the difference between a good book and a great book?

Transfer Goals

Integrate their knowledge of concepts of print, phonemic awareness, phonics, self-correcting, vocabulary, and fluency to read poetry and prose at Level H/I books. **CCK/1RL10**

Demonstrate age appropriate Reading Habits (see below)

Use this knowledge of reading to read (at appropriate level):

- Books for pleasure
- Books, magazines, web sites, and other informational texts for school learning and personal interests
- Their personal writing and class mates writings
- Environmental print in the classroom and larger community
- Simple instructions
- Poetry

Solving Words/Vocabulary

Using a range of strategies to take words apart and understand what words mean while reading continuous text

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Ask and answer questions about unknown words in a text. **CCKRL4 and CCKRI4**
Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *age appropriate reading materials* **CCKL4**
Identify new meanings for familiar words and apply them accurately (e.g., knowing *duck* is a bird and learning the verb *to duck*). **CCKL4a**
Use the most frequently occurring inflections and affixes (e.g., *-ed*, *-s*, *re-*, *un-*, *pre-*, *-ful*, *-less*) as a clue to the meaning of an unknown word. **CCKL4b**
With guidance and support from adults, explore word relationships and nuances in word meanings. **CCKL5**
Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. **CCKL5a**
Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). **CCKL5b**
Identify real-life connections between words and their use (e.g., note places at school that are *colorful*). **CCKL5c**
Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing in intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings. **CCKL5d**

Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. **CC1RI4**
Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *age appropriate reading and content*, choosing flexibly from an array of strategies. **CC1L4**
Use sentence-level context as a clue to the meaning of a word or phrase. **CC1L4a**
Use frequently occurring affixes as a clue to the meaning of a word. **CC1L4b**
Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., *looks*, *looked*, *looking*). **CC1L4c**
With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. **CC1L5**
Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. **CC1L5a**
Define words by category and by one or more key attributes (e.g., a *duck* is a bird that swims; a *tiger* is a large cat with stripes). **CC1L5b**
Identify real-life connections between words and their use (e.g., note places at home that are *cozy*). **CC1L5c**
Distinguish shades of meaning among verbs differing in manner (e.g., *look, peek, glance, stare, glare, scowl*) and adjectives differing n intensity (e.g., *large, gigantic*) by defining or choosing them or by acting out the meanings. **CC1L5d**

Instructional Strategies and/or Activities

Small Group Guided Reading, Shared Reading, Read Aloud and Individual Lessons focusing on:
Teach 1-2 high frequency words encountered in text; add to word wall.
Model identifying unfamiliar words ("If I know" band, "then this must be" strand; "now I go back to see if tie makes sense").

Concurrent Activities and Shelf Work:

Connect moveable alphabet, phonogram lessons and grammar studies to text.
Word study: compound words, contractions and plurals, synonyms/antonyms .
Read/record word wall.
Flip books and bingo games.
Nomenclature 3-part cards.
Student journal stories.
Read/record/sort nonsense words.
Read/record word families.
Word sorts.
Function of Words Lessons.

Monitoring and Correcting

Checking on whether reading sounds right, looks right, and makes sense

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Monitor comprehension (does it make sense?) to determine if they are on the correct page. Match the word they are saying to the word on the page to determine if the reading makes sense. Use context and illustration clues to self-monitor and predict/confirm printed words. Notice words they don't know during read-alouds, conversations and determine meaning from the context.	Use context to confirm or self-correct word recognition and understanding, rereading as necessary. **CC1RF4c** Ask and answer questions to help determine or clarify the meaning of words and phrases in a text. **CC1RI4** Rely heavily on memory, pictures, context, and selected letter cues to read text. Read unfamiliar level books that have been previewed for them.

Instructional Strategies and/or Activities

Small Group Guided Reading, Shared Reading, Read Aloud and Individual Lessons focusing on:

- Model using illustration and beginning consonant to identify word (at end of sentence in texts using this sentence structure).
- Cross check using 3 cueing systems (context, grammar, phonics) to decode unfamiliar words.
- Reading past word and returning.
- Use first and last letter cues.
- Ask, "Does it look/sound right, make sense?"
- Teach independent strategies to insert word and re-reading text, asking "Does this make sense?"
- Begin to recognize own miscues.
- Internalize how words are spelled and pronounced in memory.
- Recognize growing number of words with greater automaticity.

Maintaining Fluency

Integrating sources of information in a smoothly operating process that results in expressive, phrased reading

Adjusting

Reading in different ways as appropriate to purpose for reading and type of text

Phonetic Cue Reader ⟷ **Controlled Word Reader**

Read emergent-reader texts with purpose and understanding. **CCKRF4** Reread a favorite story recreating the words of the text with fluent intonation. Show through statements and point that they understand that print controls what is said. Track print with finger. Slow down to problem solve words and resume a good rate of reading.*	Read emergent-reader texts with purpose and understanding. **CCKRF4** Reread a favorite story recreating the words of the text with fluent intonation. Show through statements and point that they understand that print controls what is said. Track print with finger. Slow down to problem solve words and resume a good rate of reading.*

Instructional Strategies and/or Activities

Small Group Guided Reading, Shared Reading, Read Aloud and Individual Lessons focusing on:

- Repeated readings of text
- Choral reading
- Echo reading

Big book lessons

Reader's theatre featuring re-read, expression, fluency, decoding, comprehension

Searching for and Using Information
Searching and using all kinds of information in a text
Summarizing
Putting together and carrying important information while reading and disregarding irrelevant information
Earlier Development ⟷ **Later Development**

Craft and Structure in Literature & Nonfiction With prompting and support, name the author and illustrator of a story and define the role of each in telling the story. **CCKRL6** Identify the front cover, back cover, and title page of a book. **CCKRI5** **Key Ideas and Details for Literature & Nonfiction** With prompting and support: Ask and answer questions about key details in a text. **CCKRL1** Retell familiar stories, including key details. **CCKRL2** Identify characters, settings, and major events in a story. **CCKRL3** Use illustrations to tell stories. With prompting and support, identify the main topic and retell key details of a text. **CCKRI2** Begin to use sight word knowledge and prior knowledge to construct meaning .	**Craft and Structure in Literature & Nonfiction** Identify words and phrases in stories or poems that suggest feelings or appeal to the senses. **CC1RL4** Identify who is telling the story at various points in a text. **CC1RL6** Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text. **CC1RI5** Distinguish between information provided by pictures or other illustrations and information provided by the words in a text. **CC1RI6** **Key Ideas and Details for Literature & Nonfiction** Independently: Ask and answer questions about key details in a text. **CC1RL1** Retell stories, including key details, and demonstrate understanding of their central message or lesson. **CC1RL2** Describe characters, settings, and major events in a story, using key details. **CC1RL3** Independently: Ask and answer questions about key details in a text. **CC1RL1** Retell stories, including key details, and demonstrate understanding of their central message or lesson. **CC1RL2** Describe characters, settings, and major events in a story, using key details. **CC1RL3**

Instructional Strategies and/or Activities

Small Group Guided Reading, Read Aloud and Individual Lessons focusing on:
Question and discuss story elements, retelling, predicting.
Story or text mapping with graphic organizers.
Discuss characters and story events in a variety of genres (fiction, non-fiction, poetry).
Return to text to verify information after reading .
Oral retellings and summarize (retell story events in sequential order).

Retell beginning, middle, end with guidance and later without guidance using mental imagery.
Story Mapping, drawing pictures, and labeling story parts.
KWL Charting and gathering information about what was learned in text .
Teacher "think-alouds."
Use graphic organizers for non-fiction text (cause/effect, sequence, Venn diagrams).

Making Connections (Personal, World, Text)
Searching for and using connections to knowledge that readers have gained through their personal experiences, learning about the world, and reading other texts
Synthesizing
Putting together information from the text and from the reader's own background knowledge in order to create new understandings
Earlier Development ⟷ **Later Development**

With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text. **CCKRI3** With prompting and support, identify the reasons an author gives to support points in a text. **CCKRI8** Talk about own experiences in relation to the text.* Identify recurring story elements when applicable.* Use knowledge from their own experiences to make sense of text. Identify new information in the text and pictures.*	Describe the connection between two individuals, events, ideas, or pieces of information in a text. **CC1RI3** Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures). **CC1RI9** Make and discuss connections between texts and the reader's personal experiences.* Make connections between texts on the same topic, ending, characters, or with the same content.* Identify and apply recurring characters' attributes when applicable.* Identify what the reader already knows relative to information in the text, prior to reading.* Identify new information in the text and pictures.* Remember new information for discussion.* Show evidence in the text of new ideas or information.*
Instructional Strategies and/or Activities **Small Group Guided Reading, Read Aloud and Individual Lessons focusing on:** Making connections to self, world, and text. Identify character attributes. Identify prior knowledge and new information.	Compare and contrast text. Make personal connections (facts, characters, story events).

Inferring—Going beyond the literal meaning of a text to think about what is not there but is implied by the writer
Predicting—Thinking about what will follow while reading continuous text
Earlier Development ⟷ **Later Development**

Begins to make meaningful predictions based on illustrations or text. Predict the end of the story based on the beginning and middle of the text.* Make predictions based on personal experiences and knowledge.* Use mental imagery. Talk about characters feelings and reveal through talk or drawing. Talk about pictures and what they reveal about the story.* Understand character's feelings and motives. *	Use knowledge of language structure to anticipate the text.* Predict the end of the story based on the beginning and middle of the text* Make predictions based on personal experiences and knowledge.* Revise predictions based on new information gained through reading.* Make predictions based on knowledge of characters to type of story. Interpret causes for feelings, motives, or actions.* Show empathy for characters based on inferences.* Understand the pictures reveal interpretation of a problem or a characters' feelings.* Show evidence in the print or pictures to support inference.* Infer causes and effects as implied in the text.*

Instructional Strategies and/or Activities Inferring / Predicting **Small Group Guided Reading, Read Aloud and Individual Lessons focusing on:** Use pictures to make predictions. Revise predictions based on new information.	Previewtext to make predictions. KWL Charting of non –fiction text.

Analyzing—Examination of the elements of a text to know more about how it is constructed
Critiquing—Evaluating a text based on the reader's personal, world, or text knowledge

Earlier Development ⟷ **Later Development**

Recognize common types of texts (e.g., storybooks, poems). **CCKRL5** Describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts), with prompting and support. **CCKRL7** Compare and contrast the adventures and experiences of characters in familiar stories, with prompting and support. **CCKRL9** With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts). **CCKRI7** Understand how the ideas in the text are related to the title.* Share opinions about a text.* Share opinions about illustrations.*	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. **CC1RL5** Use illustrations and details in a story to describe its characters, setting, or events. **CC1RL7** Compare and contrast the adventures and experiences of characters in stories. **CC1RL9** Use the illustrations and details in a text to describe its key ideas. **CC1RI7** Identify the reasons an author gives to support points in a text. **CC1RI8** Understand how the ideas in a text are related to the title.* Point out connections between text and pictures.* Notice how writers or illustrators use layout and print features for emphasis.* Identify what a writer has done to make a text funny or surprising, including an author's word choice.* Discuss if a story could be true and tell why.* Share opinions about a book – beginning, characters, ending).* Share opinions about the quality of the text and/or illustrations.* Agree or disagree with the ideas in a text.* Make judgments about character or events in a text.* Discuss/analyze characters, story events, main ideas in various genres (fiction, nonfiction, poetry).

Instructional Strategies and/or Activities **Small Group Guided Reading, Read Aloud and Individual Lessons focusing on:** Use illustrations to add to the depth and detail of story. Facts and opinions about story and illustration. How story relates to story. Identify various genres of text.	Making personal connections and text to text connections. Recognize how an author uses word choice to add emphasis to a text

Reading Habits/Targets to Observe and Document

Phonetic Cued Reader ⟷ **Controlled Word Reader**

Reading a Lot
Memorize pattern books, poems, familiar books.
Demonstrate eagerness to read, pretends to read.
Read top to bottom, left to right, front to back.
Participate in reading of familiar books and poems.
Connect book read alouds to own experiences with guidance.
Develop knowledge and appreciation for different texts.
Ask for books to be read aloud.
Listen to one or two books each day in school.
Discuss books with teacher guidance.
Hear one or two books read aloud at home.
Reread or read alone two to four familiar books a day.
Follow text with finger pointing to words as read.
Pay attention to what the words they read are saying.

Discussing Books
Demonstrate the skills from comprehension standards.
Give reactions to the book with backup reasons.
Listen carefully to each other.
Relate their contributions to what others have said.
Ask each other to clarify things they say.

Reading Vocabulary
Learn new words every day from talk and books read aloud.
Notice words that they don't know when they are read to and talked with and guess what the words mean from how they are used.
Talk about words and word meanings as they are encountered in books and conversation.
Show an interest in collecting words and playing with ones they like.
Use newly learned vocabulary.

Reading a Lot
Begin to read independently for short periods (5–10 minutes).
Identify titles and authors in literature.
See self as reader.
Read four or more books every day independently or with assistance.
Discuss at least one of these books with another student or group.
Read some favorite books many times, gaining deeper comprehension.
Read their own writing, sometimes that of others.
Read functional messages in classroom.
Hear two to four books or other texts read aloud daily.
Listen to and discuss every day at least one book or chapter that is more difficult than they can read independently.

Discussing Books
Explain why literature is liked/disliked during class discussions with guidance.
Discuss favorite reading material with others.
Participate in guided literature discussions.
Demonstrate the skills from comprehension standards.
Compare two books by the same author.
Talk about several books on the same theme.
Refer explicitly to parts of the text when presenting or defending a claim.
Politely disagree when appropriate.
Ask others questions that seek elaboration and justification. Attempt to explain why their interpretation of a books is valid.

Reading Vocabulary
Learn new words every day from reading and talk.
Make sense of new words from how the words are used.
Refine sense of what new words mean as they encounter them again.
Notice and show interest in understanding unfamiliar words in texts that are read to them.
Talk about the meaning of new words encountered in independent and assisted reading.
Know how to talk about what nouns mean in terms of function, features, and category.

Formative and Summative Classroom-Based Assessments for Phonetic Cue and Controlled Word Readers (Ages 5-7 / Grades K/1)
P=Progress Monitoring, S=Screening, D=Diagnostic, E=Program Evaluation

This list provides a bank of assessments that classroom teachers may use with children to confirm their development on the continuum. The DIBELS and Developmental Reading Assessment will be used in the beginning, middle, and end of the year.

Earlier Development ⟷ **Later Development**

Formal Assessments

DIBELS - Letter Naming Fluency, Phoneme Segmentation, Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003). **(S,P,E)**

Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming. **(S,D)**

The Names Test: A Quick Assessment of Decoding (Cunningham, 1990). **(S,D)**

TROLL – (Dickinson, McCabe, & Spraque, 2003). **(S,P,E)**

Yopp Singer Test of Phoneme Segmentation. **(S,P)**

Observation Survey of Early Literacy Achievement (Clay, 2005). **(S,P,D)**

Words their Way Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000). **(S,P,D)**

Developmental Reading Assessment Text Levels and Word Analysis. (Beaver & Carter, 2003) **(P,D,E)**

Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001). **(P,D)**

Informal Assessments

PAR – WMS Phonological Awareness of Reading – (Should be able to accurately perform all phonological awareness tasks and produce all letter sounds). **(P)**

Curriculum Based Measurement (Fuchs, 1999, 2003). **(P,D)**

Oral and Written Narrative Retellings ((Paris & Paris, 2003). **(P)**

Story Construction from a Picture Book (van Kraayenoord & Paris, 1996). **(P)**

Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)**

Reading Non-words – Child will read lists of phonetically regular words correctly and high frequency irregular words correctly – will not read low frequency irregular words correctly (Compton, 1997). **(P)**

Sight Word Lists. **(P)**

Work Samples related to goals for reading in portfolios. **(P)**

Running Records – Children will rely heavily on phonetic knowledge to read unfamiliar words. Will not yet synchronize all the cuing systems. Children in this phase will move from no-response errors, to non-sense word errors to word substitution errors as they grow. **(P)**

Reading Logs. **(P)**

Formal Assessments

DIBELS - Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003). **(S,P,E)**

Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming. **(S,D)**

The Names Test: A Quick Assessment of Decoding (Cunningham, 1990). **(S,D)**

Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003). **(P,D,E)**

Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001). **(P,D)**

Informal Assessments

Written Narrative Retellings. **(P)**

Curriculum Based Measurement (Fuchs, 1999, 2003). **(P,D)**

Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004). **(P)**

Reading Non-words – will read both phonetically regular and irregular words with ease using spelling knowledge to chunk words (Compton, 1997). **(P)**

Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000). **(P)**

Sight Word Lists – Vocabulary is expanding. **(P)**

Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)**

Think Alouds (comprehension strategies) (Wade, 1990). **(P)**

Oral and Written Narrative Retellings (Paris & Paris, 2003). **(P)**

Reading Logs. **(P)**

Work Samples tied to the goals for reading and included in portfolios. **(P)**

Off –Track Indicators

Earlier Development ⟷ **Later Development**

Print—Sound Code

Not developing understanding of alphabetic principle and phonemic awareness - that letters and sounds map onto each other in a systematic way.
Rely on context to read.
Limited knowledge of letter sounds.
Struggle with rhyme and oddity.
Limited phonological reading skills.
Still needs the context of logos to read familiar environmental print.
Not knowing letter names is a significant predictor in K of future reading concerns.
Invented spelling is still not readable (sounds do not begin to match what child says he/she wrote).
Narrative Retellings do not reflect understanding of sequence and coherence.
Children who have both phonological awareness and naming speed difficulties have a "double deficit" for future decoding and comprehension.

Print – Sound Code

Children in the early stage will all read like off-track readers – but this will pass quickly for typically developing reader.
Have grasped alphabetic principle and phonemic awareness and some orthographic knowledge but their skills are not developed for full and accurate reading.
Specific difficulty with segmentation and deletion phonemic awareness tasks.
Will not automatically know all the letter sounds.
Rely on context (pictures) and sight word knowledge to read. No strategic use of reading strategies.
Will read lists of phonetically regular and irregular words relying on knowledge of familiar words that start with the same letter.
Will not be able to read lists of nonsense words. Will still rely on first letter and then guess at word.
Slower growth of reading vocabulary because of their limited ability to recognize new words in context Flat vocabulary growth.
Fail to recognize common spelling patterns that can help them as a reader.
Limited comprehension skills.
Compensatory Readers are very similar to Phonetic-Cue readers except that they do not have normal development of phonological awareness, have flat development of vocabulary, and no strategic word recognition

Text Characteristics and Examples To Support the Phonetic Cue and Controlled Word Reader

Earlier development ⟷ **Later development**

Text Characteristics for Phonetic Cue Readers
Guided Reading Levels A, B, C, D

Actively engage in group reading activities with purpose and understanding. **CCKRL10**

Leveled Books – A, B, C, D

Texts reflect common experiences, familiar objects and actions.
Some texts include repetition of one or two sentence patterns.
Patterns change only slightly (1-2 words change).
Texts include 1-3 lines of print per page.
Texts include memorable, repetitive language patterns.
Texts include an increasing number of high frequency words.
Some texts are based on familiar rhymes and songs.
Continued
Some texts include varied opening and closing sentences.
Texts include predominantly oral language structures.
Illustrations appear on every page.
Illustrations clearly support the text.

Text Characteristics for Controlled Word Recognition Readers
Guided Reading Levels E, F, G, H, I

With prompting and support, read prose and poetry of appropriate complexity for grade 1. **CC1RL10**

Leveled Books E and F

Texts reflect common experiences and conventional story structure.
Simple sentence patterns, varied sentence patterns, or repetition of two or more sentence patterns.
Illustrations appear on every page and provide strong support.
Simple vocabulary which reappears throughout text.
Print placement varies.
2-4 lines of print per page and 10-20 pages.
Continued

Leveled Books G, H, I

Texts reflect common experiences and conventional story structure but is less predicta-

Text Characteristics and Examples
To Support the Phonetic Cue and Controlled Word Reader
Earlier development ⟷ Later development

Print placement is consistent. Adequate spacing appears between words. Early books are usually 8-10 pages. Later books are 10-20 pages.	ble. Varied sentence patterns or repetition of 3 or more sentence patterns. Illustrations provide support for text and appear on every page. Simple vocabulary which reappears throughout text. Print size/placement vary. 2–4 lines of print per page and 10–32 pages

A Few Samples of Texts for Phonetic Cue Readers

Fiction

Brown Bear, Brown Bear, What Do You See? by Bill Martin, Jr.
Have You Seen My Cat? by Eric Carle
Have You Seen My Duckling? by Nancy Tafuri
Mary Wore Her Red Dress by Merle Peek
School Bus by Donald Crews

Nonfiction

A Busy Week by Katherine Mead (D)
Everyone Wears Wool by Gare Thompson (A)
It Sounds Like Music by Sarah Vázquez (D)
Playground Opposites by Anne Meyers (B)
Rainforest Colors by Susan Canizares and Betsey Chessen (B)

A Few Samples of Texts for Controlled Word Recognition Readers

Fiction

Across the Stream by Mirra Ginsburg
All by Myself by Mercer Mayer
Go, Dog, Go by P. D. Eastman
I Like Me by Nancy Carlson
Sheep in a Jeep by Nancy Shaw

Nonfiction

Bread, Bread, Bread by Ann Morris
Dinosaurs, Dinosaurs by Byron Barton
Dragonflies by Gary Torrisi
Frogs by Tom Williams
Great White Sharks by Christine Price

Resources

Montessori Materials: Word / object cards; Phonics/ language materials
Guided Reading: Good First Teaching for All Children, Fountas and Pinnell
Word Matters, Teaching Phonics and Spelling in the Reading/Writing Classroom, Fountas and Pinnell
Matching Books to Readers: Using Leveled Books in Guided Reading K-3, Fountas and Pinnell
Guiding Readers and Writers Grades 3 – 6, Fountas and Pinnell
Mosaic of Thought: The Power of Comprehension Strategy Instruction, Oliver-Keene and Zimmermann
The Café Book: Engaging All Students in Daily Literacy Assessment and Instruction, Boushey and Moser
The Fluent Reader: Oral Reading Strategies for Building Word Recognition, Fluency and Comprehension, Rasinski
Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction, Bear, Invernizzi, Templeton, Johnston
Word Sorts and More: Sound, Pattern and Meaning Explorations K-3, Ganske
Snapshots: Literacy Mini-lessons Up Close, Hoyt
Explaining Reading, Duffy
Mini Lessons for Literature Circles, Daniels and Steineke
Book Title Resource: http://www.fountasandpinnellleveledbooks.com/

Speaking and Listening K-1st (Ages 5-7)

Enduring Understandings	Essential Questions	Transfer Goals
Good listening and speaking skills help us better understand each other. Our speaking and listening skills grow through our experiences and the feedback from teachers and peers. Listening and responding to what we hear develops our understanding and knowledge. With practice we become clear and effective communicators. Good listeners compare what they are hearing to what they already know. Communication can sometimes involve disagreeing with what a speaker says.	How do we show others we are listening to them? How do we show others that we understand what is being said or asked? Can I listen and respond to what I hear? How do you speak effectively? How can I communicate effectively?	The students will speak clearly and at length to be understood. The students will integrate what they know from their experiences and conversations. The students will refine their listening skills to better understand others. The students will explain and seek information. The students will adapt their speech based on the situation, context, task and/or audience. Through listening and discussion, students will gain an increasingly complex working vocabulary.

Targeted Knowledge and Skills - Comprehension and Collaboration

Earlier Development ⟷ **Later Development**

Earlier Development	Later Development
Collaborative conversations about kindergarten topics and texts with diverse partners, peers and adults, in small and large groups. **CCKSL1** Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion). **CCKSL1a** Continue a conversation through multiple exchanges. **CCKSL1b** Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood. **CCKSL2** Ask and answer questions in order to seek help, get information, or clarify something that is not understood**. CCKSL3** Retell a story in own words that has been read aloud, getting most of the events in correct sequence. Question and discuss story elements, retelling, predicting.	Collaborative conversations about first grade topics and texts with diverse partners, peers and adults, in small and large groups. **CC1SL1** Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). **CC1SL1a** Build on others' talk in conversations by responding to the comments of others through multiple exchanges. **CC1SL1b** Ask questions to clear up any confusion about the topics and texts under discussion. **CC1SL1c** Ask and answer questions about key details in a text read aloud or information presented orally or through other media. **CC1SL2** Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. **CC1SL3**

Instructional Strategies and/or Activities

The Responsive Classroom social curriculum speaking and listening opportunities include:

Morning meeting, Greeting, Student share (verbal), Group activity-building class cohesion through active participation, Morning message, Interactive modeling, Collaborative problem solving.

In group discussions during morning meeting, small group lessons, daily read aloud and whole group lessons, students have opportunities to:

Expressing ideas clearly, draw on material read to support ideas and opinions, creating and following rules for discussions, asking and answering questions of another speaker, ask questions that seek elaboration, extend the story, make predictions, describe in their own words new information gained.

Author Study - compare and discuss books by the same author; discuss several books on the same theme.

Targeted Knowledge and Skills - Presentation of Ideas

Earlier development ⟷ **Later development**

Describe familiar people, places, things, and events and, with prompting and support, provide additional detail. **CCKSL4** Add drawings or other visual displays to descriptions as desired to provide additional detail. **CCKSL5** Speak audibly and express thoughts, feelings, and ideas clearly. **CCKSL6** Use words and phrases acquired through conversations, reading and being read to, and responding to texts. **CCKL6** Retell beginning, middle, and end with guidance. Use illustrations to tell stories.	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly. **CC1SL4** Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings. **CC1SL5** Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.) **CC1SL6** Use words and phrases acquired through conversations, reading and being read to, and respond to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., *because*). **CC1L6** Retell beginning, middle, and end with guidance.
Instructional Strategies and/or Activities Lessons related to retelling a story or event with appropriate detail and description, with awareness of audience. Morning meeting sharing of news and events. Presentation of independent, collaborative partner, or group projects.	Readers theater. Daily journal entries. **"**Talking computer**"** dictating a story to an adult who types onto computer.

Assessments

Developmental Reading Assessment Text Levels and Word Analysis (Beaver and Carter, 2003)
Oral and Written Narrative Retellings (Paris and Paris, 2003)
Anecdotal Records of children using Montessori Language Materials (Boyd-Batstone, 2004)
Speaking and Listening Rubric Grades K-6 (Reading/Language Arts Framework for California Public School: Kindergarten through Grade Twelve, CDE 1999)
Grades K-6 Listening and Speaking Rubrics at http://old.sandi.net/depts/literacy/rubrics/list_speak.pdf

Resources

Montessori Language Album—Resources obtained through MACTE approved Montessori training courses
Responsive Classroom Resource Book Level 1 and 2, Northeast Foundation for Children, Inc.
Responsive Classroom Morning Message and other Shared Writing, Northeast Foundation for Children, Inc.
Responsive Classroom : *Teaching Children to Care : Classroom Management for Ethical and Academic Growth* by Ruth Sidney Charney
Responsive Classroom: *The First Six Weeks of School* by Paula Denton and Roxann Kriete
Speaking and listening for preschool through third grade by Lauren Resnick

Writing K-1st (Ages 5-7)

Enduring Understandings	Essential Questions	Transfer Goals
Writer's communicate with one another and express their ideas and stories through print. Using the writing process will help me become a better writer. People write for many different purposes and audiences.	Why does the audience matter in my writing? How can I use pictures and words together to communicate my ideas? Why is it important to use just the right word?	Writers capably communicate with one another and express their ideas and stories through print. Students use the conventions of language to help them communicate clearly. Students will use the writing process to revise and edit their writing for clarity. Students will use technology to produce and publish writing. Students will recognize the link between writing and the written word (reading). Students will write for a variety of purposes and audiences in the following genres: personal narratives, poetry, informational/ non-fiction including how-to, fiction, summaries of fiction/ non-fiction, letter writing.

Targeted Knowledge and Skills - Purpose and Genre

Earlier Development ⟷ **Later Development**

Functional writing in which students: Write about their reading by telling a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book (e.g. My favorite book is…). **(CCKW1)**	Writing functional texts in which students: Introduce a topic or name the book they are writing about. State an opinion. Supply a reason for the opinion. Provide some sense of closure. **(CC1W1)**
Informative and explanatory texts in which students name what they are writing about and supply some information about the topic. **(CCKW2)**	Write informative and explanatory texts, such as literary nonfiction or a picture book, in which students: Name a topic. Supply some facts about the topic. And provide some sense of closure. **(CC1W2)**
Use a combination of drawing, dictating, and writing to compose narratives**,** such as memoirs, in which students narrate a single event or several loosely related events. Tell about the events in the order in which they occurred. Provide a reaction to what happened. **(CCKW3)** Compose literary nonfiction	Write narratives, such as memoirs, in which students: Recount two or more appropriately sequenced events. Include some details regarding what happened. Use temporal words to signal event order. Provide some sense of closure. **(CC1W3)**
Write labels, friendly letters, lists and procedures (how-to). Write poetry with and without rhyme.	Write labels, friendly letters, lists and procedures (how-to), and responses to reading. Write poetry with and without rhyme.

Targeted Knowledge and Skills - Purpose and Genre

Instructional Strategies and/or Activities

Genre Study lessons focusing on the qualities of writing of the following genres:
Personal narratives.
Poetry.
Informational/nonfiction including how to and research.
Fiction.
Summary of fiction and nonfiction,
Letter writing.
Writer's Workshop utilizing Lucy Calkins - Units of Study
Unit 1 Launching the Writers Workshop
Unit 2 Small Moments: Personal Narrative Writing
Unit 3 Writing for Readers: Teaching Skills and Strategies
Daily expression of ideas in writing including:
Journals.
Creative writing.
Literature response journals.
Writing on a given topic.
Montessori Materials and Lessons:
The Moveable Alphabet.
Letter/sound relationship shelf work.
Sequencing shelf work.
Story telling and retelling:
Dictated to adult then the child illustrates the story.

Targeted Knowledge and Skills - Process, Production and Distribution of Writing

Earlier Development ⟷ **Later Development**

Use a complete writing process (combination of drawing, dictating, and writing) to compose multiple pieces of writing. **CCKW1**
With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed. **CCKW5**
With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers. **CCKW6**

Use a complete writing process to compose multiple pieces of writing. **CC1W1**
With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed. **CC1W5**
With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. **CC1W6**
Polish ten pieces of writing each year.

Instructional Strategies and/or Activities

Small Group and Individual Conferencing Writer's Workshop Mini-lessons focusing on 6-Traits of Good Writing:
Organization
Compose writing with a beginning, middle, and ending.*
Compose nonfiction with a predictable pattern or in a logical sequence.*
Use titles and subtitles, when appropriate, for writing.*
Put related ideas together on the same page.*
Use graphic organizers to plan writing.
Idea Development
Communicate main points clearly.*
Follow main ideas with supportive details and examples.*
Use time as an organizing tool.*
Language use
Use language and words from books that have been read.*
Word Choice
Use words appropriate to topic and purpose.*
Vary word choice to create interesting description and dialogue.*
Voice
Write with a unique perspective.*
Write in a voice as if telling someone about an event.*
Share thoughts and feelings about a topic in a compelling way.*
Publishing
Basic Keyboarding and computer as a publishing tool.

Targeted Knowledge and Skills - Research to Build and Present Knowledge

Earlier Development ⟷ **Later Development**

Earlier Development	Later Development
Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). **CCKW7** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. **CCKW8**	Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions). **CC1W7** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question. **CC1W8**

Instructional Strategies and/or Activities

Individual, small group, and whole group shared writing lessons on:

Opinions about nonfiction books read during interactive read-alouds.
Knowledge and ideas learned from books read during interactive read-alouds.
Details learned from joint experiences, i.e. field trips, visitors, classroom events.
"How to" books after interactive read-alouds.
Lessons on ways to organize informational writing including table of contents, charts, and pictures.
Lessons on how to use resources such as books and the internet to gather information on a topic.
Introduction to keyboarding.
Writer's workshop lessons: Preparing for Publication, Editing , Writing, Sharing and Reflection.

Targeted Knowledge and Skills - Conventions

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CCKL1/CC1L1**

Earlier Development ⟷ **Later Development**

Earlier Development	Later Development
Print many upper- and lowercase letters. **CCKL1a** Use frequently occurring nouns and verbs. **CCKL1b** Form regular plural nouns orally by adding /s/ or /es/ (e.g., *dog, dogs; wish, wishes*). **CCKL1c** Understand and use question words (interrogatives) (e.g., *who, what, where, when, why, how*). **CCKL1d** Use the most frequently occurring prepositions (e.g., *to, from, in, out, on, off, for, of, by, with*). **CCKL1e** Produce and expand complete sentences in shared language activities. **CCKL1f** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CCKL2** Capitalize the first word in a sentence and the pronoun *I*. **CCKL2a** Recognize and name end punctuation. **CCKL2b** Write a letter or letters for most consonant and short-vowel sounds (phonemes). **CCKL2c** Spell simple words phonetically, drawing on knowledge of sound-letter relationships. **CCKL2d**	Print all upper- and lowercase letters. **CC1L1a** Use common, proper, and possessive nouns. **CC1L1b** Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*). **CC1L1c** Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*). **CC1L1d** Use verbs to convey a sense of past, present, and future (e.g., *Yesterday I walked home; Today I walk home; Tomorrow I will walk home*). **CC1L1e** Use frequently occurring adjectives. **CC1L1f** Use frequently occurring conjunctions (e.g., *and, but, or, so, because*). **CC1L1g** Use determiners (e.g., articles, demonstratives). **CC1L1h** Use frequently occurring prepositions (e.g., *during, beyond, toward*). **CC1L1i** Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts. **CC1L1j** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC1L2** Capitalize dates and names of people. **CC1L2a** Use end punctuation for sentences. **CC1L2b** Use commas in dates and to separate single words in a series. **CC1L2c**

Conventions—Later Development

Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. **CC1L2d**
Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions. **CC1L2e**
Use spelling patterns of CV, CVC, and CVCC to represent consonant sounds individually.

Instructional Strategies and/or Activities

Lessons, concurrent activities and hands-on shelf work focused on:

Shared writing.
Teachers modeling editing and basic conventions (capitals, periods).
Montessori grammar lessons on nouns, verbs, adjectives, and articles.
Lessons, concurrent activities and hands-on shelf work focused on vocabulary development.
Sentence combining.
Lessons, concurrent activities and hands-on shelf work focused on spelling patterns such as beginning, middle and end sounds, diagraphs, blends, long vowel patterns.
Lessons, concurrent activities and hands-on shelf work focused on: vocabulary development.
Daily editing activities focused on spelling, correct spacing, capitalization and punctuation.
Lessons on using check lists for self assessing and revising one's own writing for spelling, capitalization and punctuation.
Symbolizing words with in a phrase/sentence using Montessori Grammar Symbols, and Grammar Box Activities.
Handwriting without Tears Handwriting Curriculum-*Letters and Numbers for Me* kindergarten workbook, *My Printing Book* grade 1 workbook.
Word Wall.

Assessments for Writing

Words Their Way Spelling Inventory (Bear, Invernizzi, Tempelton, and Johnston, 2000)
Oral and Written Narrative Retellings (Paris and Paris, 2003)
Anecdotal Records of children using Montessori Language Materials (Boyd-Batstone, 2004)
Work samples related to goals in writing
Write Traits: 6-Trait Instruction and Assessment Rubrics (Spandel,)
Genre specific rubrics from Using Rubrics to Improve Student Writing (Hampton, Murphy, Lowry, 2009)
Genre specific rubrics from International Reading Association and National Council of Teachers of English (www.readwritethink.org)
The Print Tool Evaluation and Remediation (Handwriting Without Tears)
Screener of Handwriting Proficiency (Handwriting Without Tears)
Teacher conferencing focused on mini-lessons (reflecting genres and 6-Traits)

Viewing Self as a Writer and Participating in a Range of Writing

Gathering seeds, resources, small moments, experimenting with writing over various time periods.

Earlier development ⟷ **Later development**

Habits for Process/Production/ Distribution of Writing

Drawing is a major component of writing.
Drawings are detailed and related to writing.
Some drawings stand alone without words and still tell a story.
Drawings may be used to tell things children know but can't yet write with words.
Drawings can be a planning tool for writing.
Write daily without resistance when given time, place and materials.
Generate content and topics for writing
Use whatever means are at hand to communicate and make meaning including drawing, letter strings, scribbles, and other graphic representations.
Make an effort to reread own writing and listen to that of others, showing attentiveness to meaning by, for example, asking for more information.

Habits for Purposes and Genres

Narrative Writing

Appears early as a form of writing that children use.
Narratives are shared orally and through writing.
Contains a story that may be a single event or several events loosely linked.
The author may react to the events, comment on them, or evaluate them.
Tell events in chronological order.
May include gestures when reading story aloud or drawings to support or expand on meaning.
May incorporate story book language (e.g. once upon a time)

Informational Writing

Make lists.
May mimic books that have been read to them or they have read.
Can gather, collect and share information about a topic.
Can maintain a focus and stay on topic.
Exclude extraneous information when prompted.

Functional Writing:

Children understand that writing can get things done. They leave notes for friends to tell them something, create invitations, make notes as reminders, and labels for the classroom, etc.

Habits for Language Use Conventions

Uses the syntax of oral language and writing can be easily read aloud.
Writing approximates some phrasings and rhythms of literary language.

Continued

Uses words in their writing that they use in conversation usually represented phonetically.
Use words from books that have been read to them.

Habits for Process/Production/ Distribution of Writing

Drawing is used less as a planning tool and more as a way of illustrating the message.
Write daily without resistance when given time, place and materials.
Generate content and topics for writing
Reread their work often with the expectation that others will be able to read it.
Solicit and provide responses to writing.
Revise, edit, and proofread as appropriate
Apply a sense of what constitutes good writing
Polish 10 pieces of writing a year.

Habits for Purposes and Genres

Narrative Writing

Children produce both biographical and fictional narratives that:
- Evidence a plan for writing, including making decisions about sequence of events.
- Develop a narrative or retelling containing two or more appropriately sequenced events that readers can reconstruct easily.
- Incorporates drawings, diagrams, and other graphics in the text.
- Uses gestures and intonation to enhance meaning when sharing.
- Demonstrate a growing awareness of author craft using writing strategies such as dialogue, transition words for time, details, and closure.
- Imitates narrative elements from books they have read or had read to them.
- May use words like, "I wondered", "I noticed", etc. in writing.

Can react to writing, evaluate ideas in their writing, and sum up the story.

Informational Writing

Likes to report on things they know about. They understand that writing can be used to tell others about what they know.
May include pictures, graphs, diagrams.
Gather information about a topic, sort it into categories, perhaps use headings or chapters and report it to others.
Independently recognize and exclude or delete extraneous information.
Demonstrate a growing desire to communicate with details that develop ideas and enhance the reader's understanding.

Functional Writing

Create signs, invitations, letters, lists, labels to explain or tell someone to do something.
Describes in appropriate sequence and with a few details the steps needed to accomplish a task.

Continued

Use writing to claim, mark, or identify objects and places.

Responding to Literature

Reenact and retell stories, songs, poems, plays and other literary works.

Viewing Self as a Writer and Participating in a Range of Writing

Gathering seeds, resources, small moments, experimenting with writing over various time periods.

Earlier development ⟷ **Later development**

Make choices about which words to use to accurately convey meaning.
Independently creates text with words that an adult can decipher.
Rereads own text for a match between what they say and what they have on the paper.
Pause when reading to reread to make sense.
Leave spaces between words.
Write from left to right/ top to bottom.
Represent words they don't yet know how to spell with the initial consonant sound.
Most children this age are not accurately using punctuation. When they do use punctuation they usually use a period at the end of each line or page.

Produce evaluative expressions about what they read.
Make simple comparisons of the story to events or people in their lives.
Compare two books by the same author.
Discuss several books on the same theme.
Make explicit reference to parts of the text when writing about it.
Present a plausible interpretation of a book.

Habits for Language use and Conventions

Text mirrors the sentence structure of oral language.
Vary sentence openers instead of relying on one pattern (ie. I like…..)
Use a wide range of patterns of typical spoken language.
Embed literary language when appropriate.
Uses a full range of their speaking vocabulary.
Selects more precise words when prompted.
Uses newly learned words they like from their reading and books read to them.
Has mostly correctly spelled words.
Writes text that can be read by others even when spelling is not accurate.
Uses a variety of resources to figure out how to spell a word.
Does not yet have consistent control over punctuation but attempts to use periods, exclamation points, question marks, quotations, colons and capitalization at the being of a sentence and with names.

Off-Track Indicators for Writing

Off-Track writers write less than their peers. They do not demonstrate understanding of the recursive problem solving nature of writing, the purpose of writing for communication, the role of audience, the features of good writing, different genres and text structures in their writing, planning and organizing writing, conventions and their impact on meaning in their writing, role of revision –make less and usually make changes that are superficial or actually have a negative impact. Their handwriting is less legible and impedes fluency.

Resources

Montessori Language Album—Resources obtained through MACTE approved Montessori training courses
Writer's Workshop—Lucy Calkins - Units of Study (Units 1 to 3)
Speaking and listening for preschool through third grade by Lauren Resnick
Already Ready : Nurturing Writers in Preschool and Kindergarten by Katie Wood Ray and Matt Glover
National Writing Project at http://www.nwp.org/
ReadWriteThink at http://www.readwritethink.org

2nd-3rd (Ages 7-9)
English Language Arts Curriculum

The Center for Montessori Advancement
at
Wilmington Montessori School

This document is the core of the curriculum plan for the child as described above. This document allows teachers to identify assessments to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

English Language Arts Curriculum Continua for Later Controlled Word Recognition Readers and Automatic Readers

Guided Reading Levels H, I, J, K, L, M, N, O (Fountas & Pinnell)

7-9 Year Olds (Grades 2-3 Multi-Age)

It is important to note that while students in the first half of their 2nd grade year may still be in the Controlled Word Recognition stage of reading, they should be moving to the Automatic Reader stage by the middle to end of the year.

Foundational Skills

Enduring Understandings	Essential Questions	Transfer Knowledge
Good readers use letters, sounds, and specific sequences of letters to read printed words on the page. Good readers use context clues to solve unknown words while focusing on understanding text. Good readers use their knowledge of prefix, suffix, and root word meanings to determine the meaning of unknown words. Authors use specific language and word choice to create meaning when they write. Good readers learn words from wide daily reading Good readers recognize when word meaning is unknown and are able to use a variety of strategies to determine the word meaning.	How do sounds, high frequency words, and specific letter patterns help us to read? How do prefixes, suffixes, and root words help us make meaning of print? What are different strategies I can use to figure out the meaning of words that I do not know? What do good readers do? What do good readers do when they do not understand how to read a word? What do good readers do when they do not understand the meaning of a word or sentence?	At end of multi-year (2/3) cycle children will: Integrate their knowledge of the foundation skills with their abilities to think within, beyond, and about text to independently read and comprehend literature at the high end of the grades 2-3 text complexity (Levels N/O) independently and proficiently. **CC2/3RL10** Demonstrate age appropriate reading habits. Use this knowledge of reading to read: Books for pleasure, poetry, magazines, websites, and other informational texts for school learning and personal interests. Their personal writing and classmates writings. Environmental print in the classroom and larger community. Detailed instructions.

Targeted Knowledge and Skills—Phonics and Word Recognition

Know and apply grade-level phonics and word analysis skills in decoding words. CC2RF3 and CC3RF3

Earlier development ⟷ **Later development**

Know and apply grade-level phonics and word analysis skills in decoding words. **CC2RF3**

- Use chunking strategies with more complex spelling patterns (e.g., "If I know fought, then this must be thought").
- Use chunking strategies with polysyllabic words (e.g., fright-en-ing).
- Use sight word knowledge.
- Read regularly spelled one- and two-syllable words automatically.
  - Distinguish long and short vowels when reading regularly spelled one-syllable words. **CC2RF3a**
  - Know spelling-sound correspondences for additional common vowel teams. **CC2RF3b**
  - Recognize and use letter combinations that represent long vowel sounds (ai,ay,ee,ea,oa,ow).
  - Decode regularly spelled two-syllable words with long vowels. **CC2RF3c**
  - Identify the number of syllables in a word.
  - Understand the concept of plurals and plural forms: adding –s; adding –es; changing spelling.
  - Decode words with common prefixes and suffixes. **CC2RF3d**
  - Identify words with inconsistent but common spelling-sound correspondences. **CC2RF3e**
  - Recognize and read grade-appropriate irregularly spelled words such as diphthongs, special vowel spellings and common word endings. **CC2RF3f**

Know and apply grade-level phonics and word analysis skills in decoding words. **CC3RF3**

- Identify and know the meaning of the most common prefixes and derivational suffixes. **CC3RF3a**
- Decode words with common Latin suffixes. **CC3RF3b**
- Decode multi-syllable words. **CC3RF3c**
- Read grade-appropriate irregularly spelled words. **CC3RF3d**

Understand and use all sounds related to the various consonants and consonant clusters.

Instructional Strategies and/or Activities

Using small group and individualized guided reading instruction teachers provide word study, grammar lessons and shelf work focused on:

- More advanced spelling patterns, prefixes, suffixes.
- Decoding multi-syllabic words through chunking, identifying syllable parts, using knowledge of prefixes/suffixes.
- Polysyllabic words with common letter patterns (tion, ine).
- Compound words.
- Common suffixes, prefixes, roots.
- Word families with simple vowel patterns (cat, rat), complex vowel patterns (steam, late), blends (drink, trash), diagraphs (chin, ship).
- Sentence analysis.
- Connections between text, Montessori grammar and sentence analysis work.
- Word study/ vocabulary development (compound words, contractions, synonyms, antonyms, homonyms).
- Word study focused on more advanced spelling patterns, prefixes, suffixes (root words, prefixes, suffixes, word families, syllabication).
- Decode multisyllabic words through chunking, identifying syllable parts, using knowledge of prefixes/suffixes.
- Exploring synonyms, antonyms, homonyms to strengthen vocabulary.
- Activities involving students making words, doing word sorts, building words, word ladders, sort and label games.
- Sentence Analysis.
- Read/record word wall.
- Function of word lessons.

Targeted Knowledge and Skills -Solving Words/ Monitoring and Correcting

Using a range of strategies to take words apart and understand what words mean while reading continuous text
Checking on whether reading sounds right, looks right, and makes sense

Earlier development ⟷ **Later Development**

Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. **CC2RI4** Determine the meaning of words using at least three cueing systems (context, grammar, phonics) to cross check unfamiliar words. Self-monitors comprehension (does it make sense?) to: Read past a word and return Use first and last letter cues To ask, "Does it look/sound right and/or make sense? Employ self-monitoring strategies for continually accumulating the ability to read and write accurately a large core of high-frequency words. Self-monitor understanding and ask questions when meaning is lost. Examine the relationship between earlier and later parts of a text and figure out how they make sense together.	Determine the meaning of words and phrases in a text relevant to a grade 3 topic or subject area. **CC2RI4** Determine the meaning of words using at least three cueing systems (context, grammar, phonics) to cross check unfamiliar words. Self-Monitors comprehension (does it make sense?) to: Read past a word and return Use first and last letter cues To ask, "Does it look/sound right and/or make sense? Employ self-monitoring strategies for continually accumulating the ability to read and write accurately a large core of high-frequency words. Self-monitor understanding and ask questions when reading challenging texts and meaning is lost. Notice when sentences or paragraphs do not make sense. Question the author and use text to guide answers. Use reading strategies and sets goals.

Instructional Strategies and/or Activities

Using small group and individualized guided reading instruction and through modeling during read-alouds and think alouds teachers provide instruction and modeling of:

To cross check using 3 cueing systems (context, grammar, phonics) to decode unfamiliar words.

To reading past word and returning.1

To use first and last letter cues.

To ask, "Does it look/sound right, make sense?"

To teach independent strategies to insert word and re-reading text, asking "Does this make sense?"

To begin to recognize own miscues.

Model identifying unfamiliar words ("If I know" *band*, "then this must be" *strand;* "now I go back to see if it makes sense").

Targeted Knowledge and Skills

Maintaining Fluency—Integrating sources of information in a smoothly operating process that results in expressive, phrased reading

Adjusting Rate—Reading in different ways as appropriate to purpose for reading and type of text

Early development ⟷ **Later development**

Read with sufficient accuracy and fluency to support comprehension. **CC2RF4** Read on-level text with purpose and understanding. **CC2RF4a** Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. **CC2RF4b** Use context to confirm or self-correct word recognition and understanding, rereading as necessary. **CC2RF4c** After independently previewing unfamiliar Level L text silently, uses intonation, pauses, and emphasis when reading aloud. Uses basic punctuation when reading orally.	Read with sufficient accuracy and fluency to support comprehension. **CC3RF4** Read on-level text with purpose and understanding. **CC3RF4a** Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. **CC3RF4b** Use context to confirm or self-correct word recognition and understanding, rereading as necessary. **CC3RF4c** After independently previewing unfamiliar Level O text silently, uses intonation, pauses, and emphasis when reading aloud. Uses the cues of punctuation to guide meaning and fluent reading. Uses pacing and intonation to convey meaning. Independently read unfamiliar Level O books with 90 percent or better accuracy and word recognition.

Instructional Strategies and/or Activities

Using small group and individualized guided reading instruction and through modeling during read-alouds and think alouds teachers provide instruction and modeling of:

Reader's Theater and choral reading lessons.
Repeated readings to increase rate and prosody.
Echo reading.

Lessons on:

Sight word memorization.
High frequency phrases.
Modeling of fluent reading.
Reading in meaningful chunks.

Targeted Knowledge and Skills - Vocabulary Acquisition and Use

Determine or clarify meaning of unknown and multiple-meaning words and phrases and explore word relationships and nuances in word meanings. **CC2L4/CC2L5**

Early development ⟷ **Later development**

Determine or clarify the meaning of unknown and multiple-meaning words and phrases *based on grade 2 reading and content*, choosing flexibly from an array of strategies. Recognize when encountering an unknown word and be able to use a variety of strategies for making sense of how it is used in the passage they are reading. **CC2L4.**

- Use sentence-level context as a clue to the meaning of a word or phrase. **CC2L4a**
- Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., *happy/unhappy, tell/retell*). **CC2L4b**
- Use a known root word as a clue to the meaning of an unknown word with the same root (e.g. *addition, additional*). **CC2L4c**
- Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., *birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark*). **CC2L4d**
- Recognize and use a variety of compound words, synonyms, antonyms, homophones, and homographs.
- Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases. **CC2L4e**.

Demonstrate understanding of word relationships and nuances in word meanings. **CC2L5**

- Identify real-life connections between words and their use (e.g., describe foods that are *spicy* or *juicy*). **CC2L5a**
- Distinguish shades of meaning among closely related verbs (e.g., *toss, throw, hurl*) and closely related adjectives (e.g., *thin, slender, skinny, scrawny*). **CC2L5b**

Know how to talk about what nouns mean in terms of function, features, and category.
Talk about the meaning of new words encountered in reading.
Notice and show interest in understanding unfamiliar words.

Determine or clarify the meaning of unknown and multiple-meaning words and phrases *based on grade 3 reading and content*, choosing flexibly from an array of strategies. **CC3L4.**

- Use sentence-level context as a clue to the meaning of a word or phrase. **CC3L4a**
- Determine the meaning of the new word formed when a known affix is added to a known word (e.g., *agreeable/disagreeable, comfortable/uncomfortable, care/careless, heat/preheat*). **CC3L4b**
- Use a known root word as a clue to the meaning of an unknown word with the same root (e.g. *company, companion*). **CC3L4c**
- Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. **CC3L4d**.

Demonstrate understanding of word relationships and nuances in word meanings. **CC3L5**

- Distinguish the literal and non-literal meanings of words and phrases in context (e.g., *take steps*). **CC3L5a**
- Identify real-life connections between words and their use (e.g., describe people who are *friendly* or helpful). **CC3L5b**
- Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., *knew, believed, suspected, heard, wondered*). **CC3L5c**

Know how to talk about what nouns mean in terms of function, features, and category.
Talk about the meaning of most new words encountered.
Notice and show interest in unfamiliar words.
Know meanings of prefixes, roots, and suffixes.
Recognize and use a variety of complex compound words, synonyms, antonyms, homographs, and homophones.
Know how to talk about verbs as "action words".

Instructional Strategies and/or Activities

Using small group and individualized lessons, concurrent activities and shelf work teachers model:

Connecting moveable alphabet and phonogram lessons, grammar studies to text.
Word study:
Compound words.
Contractions and plurals.
Synonyms/antonyms.
Read/record word wall.
Flip books and bingo games.
Nomenclature 3-part cards.
Student journal stories.
Function of Word lessons.
Word Sorts.

Comprehension: Thinking WITHIN, BEYOND, and ABOUT the Text

Enduring Understandings, Essential Questions, Transfer—Searching for and Using Information—Summarizing, Predicting, Inferring—Making Connections (Personal, World, Text)

Enduring Understandings (within text)

Reading involves making sense of the text, not just decoding the words.

Good readers create an effective recounting of literary text(s) that includes characters, setting, problem, events, and solutions, as well as any key ideas and details.

Good readers use key details and text features (graphic organizers, maps, schedules, etc.) found in informative text to identify the main topic or theme.

Good readers use multiple strategies to help them understand what they are reading.

Good readers stop periodically to check if they understand what they are reading and use multiple fix-up strategies when they do not understand the text.

Good readers set purposes for reading and make predictions before and during reading.

Good readers summarize during and after reading.

Enduring Understandings (Beyond text)

Good readers can use their own experiences and what they know to build their understanding of what they read.

Good readers use multiple strategies to help them make inferences to construct meaning about what they are reading.

Good readers use both text and graphics to understand text.

Good readers make connections between individuals, events, ideas, and information to better understand informational and fictional text.

Sometimes an author makes his/her meaning clear, other times a reader must stop and think about the text to find the intended meaning as well as the point of view.

Good readers use all they know, their experiences, relationships, media, as well as other books they have read, to fully understand the information they read in order to be able to effectively use the information.

Good readers continually make predictions before, during, and after they have read a piece of text.

Continued

Essential Questions (Within text)

How does the purpose of writing contribute to the author's choice of words?

How do texts differ?
How are texts the same?

How should I read different types of text?
What is the author telling me?

How can I use text features to understand informational texts?

Why is it important to know who is telling the story?

Essential Questions (Beyond Text)

How are stories about other places and times about me?

What is the author saying?

How do I know what the author is saying?

How do I read between the lines to fully understand what the author is saying?

What is the author's perspective or point of view?

What can I use to help me make predictions?

How do I know if I am making correct predictions?
What should I do if my prediction is incorrect?

How do connections I make with the story help me better understand the text?

What do readers do when they do not understand?

Essential Questions (About Text)

What is the author trying to say in the text?
What evidence can be found to support what I think the author is saying?

Do I agree or disagree with the author? Why or why not?

What makes a great book or story great?

What is the relationship between popularity and greatness in literature?

What is the relationship between fiction and truth?

What should I do when I agree or disagree with the author?

How does noticing the words the author uses make me a better reader?

Transfer Goals

At end of multi-year (2/3) cycle children will:

Integrate their knowledge of the foundation skills with their abilities to think within, beyond, and about text to independently and proficiently read and comprehend literature, at the high end of the grades 2-3 text complexity (Levels N/O).
CC2/3RL10

Demonstrate age appropriate Reading Habits with appropriate leveled texts (see below)

Use this knowledge of reading to read a wide variety of literature including:

- Books.
- Poetry.
- Magazines.
- Website.
- Other informational texts for school learning, pleasure, and personal interests.
- Their personal writing and classmates writings.
- Environmental print in the classroom and larger community.

Enduring Understandings (Beyond text)

Different readers may respond to the same text in different ways.
Reading for meaning requires readers to be active and engaged during the reading process, continually thinking about what the author is saying, why the author is saying what they are, and how that agrees or disagrees with the readers way of thinking.
Authors provide reasons, examples, lists, maps, graphs, comparisons, and contrasts in informative text to support their points and ideas.
Good readers recognize and understand the organizing structures of text and how that contributes to the meaning of the text.
Good readers notice the author's craft and the author's ability to make characters.

Targeted Knowledge and Skills

Searching for and Using Information—Searching and using all kinds of information in a text
Summarizing—Putting together and carrying important information while reading and disregarding irrelevant information

Earlier Development ⟷ **Later Development**

Craft and Structure in Literature and Nonfiction

Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. **CC2RL4**
Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action. **CC2RL5**
Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently. **CC2RI5**
Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text. **CC2RI1**
Identify the main purpose of a text, including what the author wants to answer, explain, or describe. **CC2RI6**
Retell beginning, middle and end of the story.
Discuss characters and story events with guidance.
Follows written directions from a text.

Key Ideas and Details for Literature and Nonfiction

With prompting and support:
- Ask and answer such questions as *who*, *what*, *where*, *when*, *why*, and *how* to demonstrate understanding of key details in a text. **CC2RL1**
- Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral. **CC2RL2**
- Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text. **CC2RI2**
- Use of mental imagery.
- Notice and remember the events of a story in sequence.
- Notice and understand the problem of a story and how it is solved.
- Follow multiple events in a story to understand the plot.

Craft and Structure in Literature and Nonfiction

Determine the meaning of words and phrases as they are used in a text, distinguishing literal from non-literal language. **CC3RL4**
Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections. **CC3RL5**
Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently. **CC3RI5**
Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. **CC3RI1**
Reads and follows simple directions from a text.
Compare and contrast story characters and events.
Notice and remember attributes and actions that will help in understanding character development.
Notice and understand the problem of a story and how it is solved.
Notice and understand how one event builds on another throughout the text.
Analyze the relationships across parts of text.
Question the author and use text to guide answers.
Examine the relationship between earlier and later parts of a text and figure out how they make sense together.

Key Ideas and Details for Literature and Nonfiction

Independently:
- Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. **CC3RL1**
- Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text. **CC3RL2**
- Determine the main idea of a text; recount the key details and explain how they support the main idea. **CC3RI2**

Searching for and Using Information & Summarizing - Later Development

Use of mental imagery.
Follow and remember multiple events in a story to understand the plot.

Instructional Strategies/ Activities

Through individualized and small group guided reading and literature circle lessons, teachers use modeling, think-alouds, and specific instructional strategies such as:

Question/Answer Response Strategies.
Developing graphic organizers to reflect key text points and structure.
Making predictions and supporting them with information from the text.
Response journals.
Literature circle group discussions.
To return to text to verify information after reading.
Retellings.
Writing summaries.
Using graphic organizers to summarize a text.
Using mental imagery.

Targeted Knowledge and Skills

Making Connections (Personal, World, Text) - Searching for and using connections to knowledge that readers have gained through their personal experiences, learning about the world, and reading other texts

Synthesizing—Putting together information from the text and from the reader's own background knowledge in order to create new understandings

Earlier Development ⟷ **Later Development**

Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text. **CC2RI3**
Describe how characters in a story respond to major events and challenges. **CC2RL3**
Compare and contrast two or more versions of the same story (e.g. Cinderella stories) by different authors or from different cultures. **CC2RL9**
Relate prior knowledge and experiences to reading.
Support thinking beyond the text with specific evidence based on personal experience or knowledge or evidence from the text.
Make connections to other texts by topic, major ideas, authors' styles, and genres.
Combine information from text with personal experiences and/or different parts of a text.
Bring background knowledge to understanding characters and their problems.
Summarize, evaluate, and return to text to verify information.

Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect. **CC3RI3**
Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events. **CC3RL3**
Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g. in books from a series). **CC3RL9**
Respond to and make personal connections with facts, characters, and situations in literature.
Relate prior knowledge and experiences prior to reading.
Support thinking beyond the text with specific evidence based on personal experience or knowledge, or evidence from the text.
Make connections to other texts by topic, major ideas, authors' styles, and genres.
Synthesize information with prior knowledge.

Instructional Strategies and/or Activities

Use small group and individualized guided reading instruction, read-alouds, and think-alouds:

Writing variations on texts they have read telling a story from a new point of view, new setting, etc.
Making personal connections with facts, characters, story events.
Relating prior knowledge and experiences and past readings to the text.
Focus on the writers' craft, voice, word choice, ideas, organization, and conventions.

Targeted Knowledge and Skills
Inferring
Going beyond the literal meaning of a text to think about what is not there but is implied by the writer
Predicting
Thinking about what will follow while reading continuous text

Earlier Development ⟷ **Later Development**

Infer cause-and-effect relationships not explicitly stated. Determine the author's point of view. Infer characters' intentions or feelings. Infer characters' feelings and motivations from description, what they do or say, and what others think about them. Interpret illustrations and discuss their role in the text. Preview, make, and revise predictions based on text. Use evidence from the text to support predictions (I think…because…). Predict what will happen after the end.	Begins to "read between the lines" with guidance. Determine the author's point of view. Hypothesize underlying motivations of characters that are not stated. Infer characters' feelings and motivations from description, what they do or say, and what others think about them. Interpret the mood of illustrations. Hypothesize the signification of the setting and events in a story in influencing characters' decisions and attitudes. Recognize, understand, and discuss obvious symbolism. Preview, make, and revise predictions as text offers new information. Use evidence from the text to support predictions (I think…because…). Predict what will happen after the end.

Instructional Strategies and/or Activities

Through individualized and small group guided reading and literature circles lessons, teachers use modeling, think-alouds, and specific instructional strategies such as:

Previewing and making predictions.

Inferring information when reading.

Question /Answer Response Strategies.

Revising predictions as text offers new information.

Targeted Knowledge and Skills

Analyzing

Examination of the elements of a text to know more about how it is constructed

Critiquing

Evaluating a text based on the reader's personal, world, or text knowledge

Earlier Development ⟷ **Later Development**

Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud. **CC2RL6** Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot. **CC2RL7** Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text. **CC2RI7** Recognize and discuss organizing structures of text (beginning, events in sequential order, ending). Examine and compare different versions of the same story, rhyme, or traditional tale. Notice the writer's use of language (word choice). Notice similarities and differences among texts that are by the same author or are on the same topic. Recognize how the writer or illustrator has placed ideas in the text and in the graphics. Compare the observations of the author to personal observations when reading non-fiction text. Discuss the "how, why, and what-if" questions about non-fiction text. Form and state the basis for opinions about authors, illustrators, and texts.	Distinguish their own point of view from that of the narrator or those of the characters. **CC3RL6** Distinguish their own point of view from that of the author of a text. **CC3RI6** Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting). **CC3RL7** Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). **CC3RI7** Discuss underlying themes or messages in fiction. Identify and discuss recurring themes across texts. Recognize the genre of the text and use it to form expectations of the text. Note and discuss author's craft in word choice, plot, character development, beginning, and ending text structures. Notice similarities and differences among texts that are by the same author or are on the same topic. Evaluate literacy merit. Examine reasons for character actions. Notice and understand how the author uses temporal sequence, comparison and contrast, and description. Notice ways the author makes characters seem real. Recognize argument and persuasion.

Instructional Strategies and/or Activities

Through individualized and small group guided reading and literature circles lessons, teachers use modeling, think-alouds, and specific instructional strategies such as discussing and analyzing characters, events or information in a text.

Reading Habits to Observe

Later Word Controlled Readers ⟷ **Automatic Readers**

Controlled Word Readers will focus on the qualities of literature by:
Reading wide variety of genres.
Choosing reading materials independently.
Reading independently for 15 minutes.
Reading one or two short books or long chapters every day discussing what they read with peers.
Reading good children's literature every day.
Reading multiple books by same author and discuss differences and similarities.
Rereading favorite books gaining deeper comprehension and knowledge of writing craft.
Reading their own writing and writing of their classmates.
Reading functional and instructional messages.
Voluntarily reading to each other.
Having worthwhile literature read to them daily.
Listening to and discuss daily at least one book or chapter that is more difficult than what they can read independently or with assistance.
Hearing texts read from a variety of genres.
Using reading strategies modeled by adults.
Demonstrate skills from age appropriate comprehension standards when discussing books by:
Learning and sharing information from reading.
Demonstrating skills from comprehension standards.
Identifying basic genres and compare works by different authors in same genre.
Discussing recurring themes across works.
Paraphrasing or summarizing what another speaker has said and check for whether the speaker accepts paraphrasing.
Sometimes challenging a speaker on whether facts are accurate, including reference to the text.
Sometimes challenging another speaker on logic or inference.
Asking other speakers to provide supporting information or details.
Politely correcting someone who paraphrases or interprets their ideas incorrectly.
Reading Vocabulary:
Learn new words every day from reading and talk.
Recognize when they don't know what a word means and use a variety of strategies for making sense of how it is used in the passage they are reading.
Talk about the meaning of some new words encountered in reading.
Notice and show interest in understanding unfamiliar words.
Know how to talk about what nouns mean in terms of function, features, and category.

Early Automatic Readers will focus on the qualities of literature by:
Reading 30 chapter books a year, independently or with assistance.
Regularly participating in discussions of literature with peers or adults.
Discussing underlying themes or messages in fiction.
Reading and responding to a wide variety of genres.
Identifying and discussing recurring themes across texts.
Evaluating literacy merit.
Participating in peer talk about selecting books.
Examining reasons for character actions.
Accounting for situation and motive.
Recognizing genre features.
Noting and talking about author's craft in word choice, plot, character development, beginnings and endings.
Demonstrate skills from age appropriate comprehension standards when discussing books by:
Consistently demonstrating the skills of the Later Word Controlled Reader.
Noting and talking about author's craft: word choice, beginnings and endings, plot, character development.
Using comparisons and analogies to explain ideas.
Referring to knowledge shared in discussions.
Using information that is accurate, accessible and relevant.
Restating their own ideas with greater clarity when a listener indicates non-comprehension.
Asking other students questions asking them to support arguments.
Indicating when ideas need further explanation.
Reading Vocabulary:
Increases vocabulary by using context cues.
Learn words from daily reading.
Recognize when word meaning is unknown using various strategies to figure it out.
Know meanings of roots, prefixes, suffixes.
Talk about the meaning of most new words encountered.
Notice and show interest in unfamiliar words.
Know how to talk about what nouns mean in terms of function, features, and category.
Know how to talk about verbs as "action words."
Talk about words as they relate to other words: synonyms, antonyms, or more precise words.

Formative and Summative Classroom-Based Assessments for Phonetic Cue and Controlled Word Readers
(Ages 7-9 / Grades 2/3) P=Progress Montitoring, S=Screening, D=Diagnostic, E=Program Evaluation

This list provides a bank of assessments that classroom teachers may use with children to confirm their development on the continuum. The DIBELS and Developmental Reading Assessment will be used in the beginning, middle, and end of the year.

It is important to note that while students in the first half of their 2nd grade year may still be in the Controlled Word Recognition stage of reading, they should be moving to the Automatic Reader stage by the middle to end of this year.

Later Controlled Word Reader Formal Assessments

DIBELS - Letter Naming Fluency, Phoneme Segmentation, Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)**

Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)**

The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)**

TROLL – (Dickinson, McCabe, & Spraque, 2003)**(S,P,E)**

Yopp Singer Test of Phoneme Segmentation **(S,P)**

Observation Survey of Early Literacy Achievement (Clay, 2005) **(S,P,D)**

Words their Way Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(S,P,D)**

Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)**

Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)**

Informal Assessments

PAR – WMS Phonological Awareness of Reading – (Should be able to accurately perform all phonological awareness tasks and produce all letter sounds) **(P)**

Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)**

Oral and Written Narrative Retellings ((Paris & Paris, 2003) **(P)**

Story Construction from a Picture Book (van Kraayenoord & Paris, 1996) **(P)**

Work Samples related to goals for reading in portfolios **(P)**

Anecdotal Records of Children using Montessori language materials (Boyd-Batstone, 2004) **(P)**

Reading Non-words – Child will read lists of phonetically regular words correctly and high frequency irregular words correctly – will not read low frequency irregular words correctly (Compton, 1997). **(P)**

Sight Word Lists **(P)**

Running Records – Children will rely heavily on phonetic knowledge to read unfamiliar words. Will not yet synchronize all the cuing systems. Children in this phase will move from no-response errors, to nonsense word errors to word substitution errors as they grow. **(P)**

Automatic Reader Formal Assessments

DIBELS - Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003) **(S,P,E)**

Comprehensive Test of Phonological Processing (Wagner, Torgesen & Roshotte, 1999) - Rapid Letter Naming **(S,D)**

The Names Test: A Quick Assessment of Decoding (Cunningham, 1990) **(S,D)**

Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)**

Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)**

Informal Assessments

Written Narrative Retellings **(P)**

Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)**

Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)**

Reading Non-words – will read both phonetically regular and irregular words with ease using spelling knowledge to chunk words (Compton, 1997) **(P)**

Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)**

Sight Word Lists – Vocabulary is expanding **(P)**

Running Records – Much more synchronization of cuing systems and automatic word recognition **(P)**

Think Alouds (comprehension strategies) (Wade, 1990)

Oral and Written Narrative Retellings (Paris & Paris, 2003) **(P)**

Reading Logs **(P)**

Reading non-words – Will read both phonetically regular and irregular words with ease using spelling knowledge to chunk words (Compton, 1997). (**P**)

Work Samples tied to goals for reading in portfolio (**P**)

Classroom assessments should focus on

Speed of response when reading a list of words – off-track reader will read words accurately if given enough time.

Ability to read multi-syllabic words with chunking.

Tracking ability to read text at rate of 100 words per minute with less than 5% errors.

Off-Track Indicators

Children with these characteristics should have a Response to Intervention Plan

Earlier Development

Compensatory Reader (Child compensates for lack of strong phonics skills)
Has grasped alphabetic principle and phonemic awareness and some orthographic knowledge, but their skills are not developed for full and accurate reading.
Has specific difficulty with segmentation and deletion phonemic awareness tasks.
Will not automatically know all the letter sounds.
Relies on context (pictures) and sight word knowledge to read.
No effective use of strategies.
Reads lists of phonetically regular and irregular words relying on knowledge of familiar words that start with the same letter.
Is not able to read lists of nonsense words and will still rely on first letter and then guess at word.
Has slower growth of reading vocabulary because of their limited ability to recognize new words in context.
Fails to recognize common spelling patterns that can help them as a reader.
Has limited comprehension skills.

Later Development

Non-Automatic Reader (Spear-Swerling Sternberg 1996)(Compton, 1997**)**
Has fluency and accuracy is a primary deficit.
Recognizes words accurately but is not fluent.
Has decoding skills and will know all letter sounds; but cannot use them automatically.
Does not use strategies for word recognition in a synchronized way.
Will not chunk multi-syllabic words.
Will rely on context cues to recognize words.
Is inaccurate in recognizing words.
Has naming speed and phonological deficits that will be a particular risk for failure.
Will have reading comprehension decline because of speed issues with increasingly challenging text.
Will have an attitude towards reading that is unfavorably impacted.

Text Characteristics and Examples to Support the Later Controlled Word and Automatic Reader

Text Characteristics for Later Controlled Word Recognition Readers
Guided Reading Levels H, I, J, K, L
Lexile range 450-790

By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range. **CC2RL10**

Mid- Controlled Word Recognition Reader Books Leveled Books H and I
Fewer texts providing rhyme and repetition.
Simple story line with few repeated phrases.
Fairy / folk tales retold using simpler vocabulary and language structure.
Literary language (more formal), descriptive language, and details.
Simple plots, few characters.
Illustrations on every page provide support, representing sequence of events
Vocabulary primarily consists of familiar words.
Print size and placement vary.
Double-spaced and does not always run to right margin.
Texts are usually 10-50 pages.
Nonfiction texts are often shorter.
Later Controlled Word Recognition Books Leveled Books J, K, L

Text Characteristics for Automatic Readers
Guided Reading Levels M, N, O
Lexile Range 450-790

By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently. **CC3RL10**

Leveled Books--L, M, N, O
Plots often include a series of events.
Texts include developed plots.
Fiction often includes the everyday events and problems that children encounter.
Fiction includes a few developed characters.
Nonfiction texts include clear facts and information.
Texts include some challenging vocabulary.
Texts include descriptive language and details.
Illustrations provide minimal support and can occur once every 2-6 pages or once or twice in a chapter.
Text is single-spaced.
Illustrations often depict characters and settings and may convey mood.
Text may include vocabulary specific to genre or topic.
Text in easy chapter books is often double spaced and does not always run to right mar-

Text Characteristics and Examples to Support the Later Controlled Word and Automatic Reader

Developed story line with little or no use of pattern.
Plots often include a series of events.
Simple historical fiction and biographies require no background knowledge.
Literary language (more formal), some challenging vocabulary, dialogue.
Illustrations on every page or two and provide less support.
Double-spaced and does not always run to right margin.
Divided into sections with page numbers and table of contents.
Length is usually 20–75 pages.

Examples of Texts for Later Controlled Word Recognition Readers

The Napping House by Audrey Wood
There's a Nightmare in My Closet by Mercer Mayer
Are You My Mother? by P. D. Eastman
Hop on Pop by Dr. Seuss
Mouse Soup by Arnold Lobel
Oliver Button is a Sissy by Tomie de Paola

gin.
Books often contain page numbers, table of contents, and chapter numbers and/or titles.
Nonfiction texts may include page numbers, table of contents, captions, chapter headings, and an index.
Length is usually 60-100 pages.

Examples of Texts for Automatic Readers

Freckle Juice by Judy Blume
Kate Shelley and the Midnight Express by Margaret Wetterer (NF)
Flat Stanley by Jeff Brown
Chalk Box Kid by Clyde Robert Bulla
The Titanic: Lost…And Found by Judy Donnelly (NF)
Pompeii…Buried Alive! by Edith Kunhardt (NF)
Smokey Night by Eve Bunting

Resources

Montessori Materials:
Word / object cards
Phonics/ language materials

Guided Reading: Good First Teaching for All Children, Fountas and Pinnell
Word Matters, Teaching Phonics and Spelling in the Reading/Writing Classroom, Fountas and Pinnell
Matching Books to Readers: Using Leveled Books in Guided Reading K-3, Fountas and Pinnell
Guiding Readers and Writers Grades 3 – 6, Fountas and Pinnell
Mosaic of Thought: The Power of Comprehension Strategy Instruction, Oliver-Keene and Zimmermann
The Café Book: Engaging All Students in Daily Literacy Assessment and Instruction, Boushey and Moser
The Fluent Reader: Oral Reading Strategies for Building Word Recognition, Fluency and Comprehension, Rasinski
Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction, Bear, Invernizzi, Templeton, Johnston
Word Sorts and More: Sound, Pattern and Meaning Explorations K-3, Ganske
Snapshots: Literacy Mini-lessons Up Close, Hoyt
Explaining Reading, Duffy
Mini Lessons for Literature Circles, Daniels and Steineke
Book Title Resource: http://www.fountasandpinnellleveledbooks.com/

Speaking and Listening 2nd-3rd (Ages 7-9)

Enduring Understandings	Essential Questions	Transfer Goals
Good listening and speaking skills help us better understand each other. Our speaking and listening skills grow through our experiences and the feedback from teachers and peers. Listening and responding to what we hear develops our understanding and knowledge. With practice we become clear and effective communicators. Good listeners compare what they are hearing to what they already know. Communication can sometimes involve disagreeing with what a speaker says	Why speak? What do good speakers sound like? How do good speakers express their thoughts and feelings? What makes a speaker "good"? How is spoken language different from written language? What am I trying to say when I speak? To whom am I speaking? How can I help my audience understand me? What does a good listener do? Can a person "hear" but not "listen"? How does what I hear compare with what I already know? What should I do when I do not agree with the speaker?	The students will speak clearly and at length to be understood. The students will integrate what they know from their experiences and conversations. The students will refine their listening skills to better understand others. The students will explain and seek information. The students will adapt their speech based on the situation, context, task and/or audience. Through listening and discussion students will gain an increasingly complex working vocabulary.

Targeted Knowledge and Skills—Comprehension and Collaboration

Earlier Development ⟷ **Later Development**

Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. **CC2SL1**
- Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). **CC2SL1a**
- Build on others' talk in conversations by linking their comments to the remarks of others. **CC2SL1b**
- Ask for clarification and further explanation as needed about the topics and texts under discussion. **CC2SL1c**

Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. **CC2SL2**

Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. **CC2SL3**

Identify basic genres and compare works by different authors in same genre.

Discuss recurring themes across works.

Paraphrase or summarize what another speaker has said and check for whether the speaker accepts paraphrasing.

Respectfully challenge another speaker on whether facts are accurate, including reference to the text.

Respectfully and politely correct someone who paraphrases or interprets ideas incorrectly.

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly. **CC3SL1**
- Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. **CC3SL1a**
- Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). **CC3SL1b**
- Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others. **CC3SL1c**
- Explain their own ideas and understanding in light of the discussion. **CC3SL1d**

Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. **CC3SL2**

Ask and answer questions about information from a speaker, offering appropriate elaboration and detail. **CC3SL3**

Use comparisons and analogies to explain ideas.

Refer to knowledge shared in discussions.

Use information that is accurate, accessible, and relevant.

Restate own ideas with greater clarity when a listener indicates non-comprehension.

Ask other students questions that require additional support of an argument.

Indicate when ideas require further explanation.

Comprehension and Collaboration

Instructional Strategies and/or Activities

In group discussions during morning meeting, small group lessons, literature circles, and whole group lessons, teachers use modeling, and think-alouds and specific instructional strategies such as:

- Expressing ideas clearly
- Drawing on material read to support ideas and opinions.
- Creating and following rules for discussions.
- Asking and answering questions of another speaker.

Presentation of Ideas

Earlier Development ⟷ **Later Development**

Earlier Development	Later Development
Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences. **CC2SL4**	Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. **CC3SL4**
Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts experiences when appropriate to clarify ideas, thoughts, and feelings. **CC2SL5**	Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details**. CC3SL5**
Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. **CC2SL6**	Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 on pages 28 and 29 for specific expectations.) **CC3SL6**
Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using adjectives and adverbs. (e.g., *When other kids are happy that makes me happy*). **CC2L6**	Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., *After dinner that night we went looking for them*). **CC3L6**
Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC2L3**	Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC3L3**
Compare formal and informal uses of English. **CC2L3a**	Choose words and phrases for effect.* **CC3L3a**
	Recognize and observe differences between the conventions of spoken and written standard English. **CC3L3b**

Instructional Strategies and/or Activities

Lessons related to retelling a story or event with appropriate detail and description, with awareness of audience.
Morning meeting which may include sharing of news and events.
Presentation of independent or collaborative partner or group projects.

Assessments for Speaking and Listening

Developmental Reading Assessment Text Levels and Word Analysis (Beaver and Carter, 2003)
Oral and Written Narrative Retellings (Paris and Paris, 2003)
Anecdotal Records of children using Montessori Language Materials (Boyd-Batstone, 2004)
Speaking and Listening Rubric Grades K-6 (Reading/Language Arts Framework for California Public School: Kindergarten through Grade twelve, CDE 1999)
Grades K-6 Listening and Speaking Rubrics at http://old.sandi.net/depts/literacy/rubrics/list_speak.pdf

Resources

Montessori language albums: Resources obtained through MACTE approved Montessori training courses
Thinkfinty, lesson plans and interactives at http://www.thinkfinity.org/
ReadWriteThink, lesson plans and interactives at http://www.readwritethink.org/
Responsive Classroom Resource Book Level 1 and 2, Northeast Foundation for Children, Inc.
Responsive Classroom Morning Message and other Shared Writing, Northeast Foundation for Children, Inc.
Responsive Classroom : Teaching Children to Care Classroom Management for Ethical and Academic Growth by Ruth Sidney Charney
Responsive Classroom: The First Six Weeks of School by Paula Denton and Roxann Kriete
Speaking and listening for preschool through third grade by Lauren Resnick

Writing 2nd-3rd (Ages 7-9)

Enduring Understandings	Essential Questions	Transfer Goals
Writers communicate with one another and express their ideas and stories through print. Using the writing process will help me become a better writer. People write for many different purposes and audiences. Using correct conventions of language will help me communicate more clearly.	Why write? Why share personal experiences in writing? How is written language different from spoken language? What makes writing worth reading? How do writers express their thoughts and feelings? Where do ideas for writing come from? What am I trying to communicate through my writing? Why does the audience matter in my writing? Why is it important to use specific words?	Writers capably communicate with one another and express their ideas and stories through print. Students use the conventions of language to help them communicate clearly. Students will use the writing process to revise and edit their writing for clarity. Students will use technology to produce and publish writing. Students will recognize the link between writing and the written word (reading). Students will write for a variety of purposes and audiences in the following genres: Personal narratives. Poetry. Informational non-fiction including "How-to." Fiction. Persuasive Essays. Summaries of fiction/non-fiction. Letter writing.

Targeted Knowledge and Skills
Purpose and Genre

Earlier Development ⟷ **Later Development**

Write opinion pieces in which they introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. **CC2W1**

Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section. **CC2W2**

Write functional pieces that perform a practical task directed at a specific audience, including important information in the communication. **CC2W2**

Write for a specific purpose: to inform, entertain, persuade, reflect, instruct, retell, maintain relationships, plan, and demonstrate understanding about text. **CC2W2**

Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. **CC2W3**

Write short fiction pieces (realism or fantasy) in which they describe characters by how they look and what they do and describe the setting with appropriate detail; include elements of fiction such as setting, problem, characters, and problem resolution in their written work. **CC2W3**

Write poetic work (free verse or rhyme) in which they express feelings, sensory images, ideas, or stories using poetic language to communicate meaning. **CC2W3**

Organize text structure in different ways according to audience, genre, and purpose of written work.

Write opinion pieces on topics or texts, supporting a point of view with reasons. **CC3W1**

- Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons. **CC3W1a**
- Provide reasons that support the opinion. **CC3W1b**
- Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons. **CC3W1c**
- Provide a concluding statement or section. **CC3W1d**

Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **CC3W2**

Write functional pieces that perform a practical task directed at a specific audience, including important information in the communication while using transition words. **CC3W2**

Write for a specific purpose: to inform, entertain, persuade, reflect, instruct, retell, maintain relationships, plan, and demonstrate understanding about text. **CC3W2**

- Introduce a topic and group related information together; include illustrations when useful to aiding comprehension. **CC3W2a**
- Develop the topic with facts, definitions, and details. **CC3W2b**
- Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information. **CC3W2c**
- Provide a concluding statement or section. **CC3W2d**

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. **CC3W3**

Write short fiction pieces (historical, short story, or realistic fiction) in which they describe characters by how they look; what they do, say, and think; and what others say about them. Describe the setting with appropriate detail, develop an interesting story with believable characters and a realistic plot, and expose the problem of the story. **CC3W3**

- Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. **CC3W3a**
- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. **CC3W3b**
- Use temporal words and phrases to signal event order. **CC3W3c**
- Provide a sense of closure. **CC3W3d**

Organize text structure in different ways according to audience, genre, and purpose of written work.

Write informational text that is ordered by logic (*categories, sequences, ideas related to each other*).

Purpose and Genre—Later development

Write poetic work (free verse or rhyme) using a variety of types of poems, observing closely to select topics or content and write with detail; use similes and metaphors, and use poetic techniques such as repetition, refrain, and rhythm to communicate meaning.
Produce a draft with a strong lead, initiating event and series of events (for narrative pieces); present ideas in logical order and maintain control of a central idea before bringing closure with ending or final statement.
Show ability to vary the text by choosing alternative words (e.g., alternatives for *said*), borrowing a word, phrase, or a sentence from another writer, and/or state information in a unique or surprising way.
Use a variety of beginnings, middles, and ending structures to engage the reader that is appropriate for the genre.

Instructional Strategies and/or Activities

Small Group and Individual Conferencing Writer's Workshop Mini-lessons focusing on 6-Traits of Good Writing.
Genre Study lessons focusing on the qualities and writing of the following genres:
- Personal narratives.
- Poetry.
- Informational/Non-fiction including How-to and research.
- Fiction.
- Persuasive Essays.
- Summaries of fiction/non-fiction.
- Letter writing.
- Literature Response.

Writer's Workshop utilizing Lucy Calkins
- Unit 1 Launching the Writers Workshop
- Unit 2 Small Moments: Personal Narrative Writing
- Unit 3 Writing for Readers: Teaching Skills and Strategies

Targeted Knowledge and Skills—Process, Production and Distribution of Writing

Earlier Development ⟷ **Later Development**

With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing. **CC2W5**
With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers. **CC2W6**
Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **CC2W10**
Understand the role of other writers and adults in the writing process for providing feedback, clarity, and ideas for expanding information.
Respectfully solicit suggestions, feedback, and advice from peers and adults then make changes to writing (adding, deleting, providing specificity and clarity, and/or reorganizing information) based on feedback on original draft.
Stay focused on topic by deciding what is most important, selecting details to support the topic, forming and answering questions about a topic, and gathering information (with support, as needed) about a topic from multiple resources (books, media, etc.)
Show ability to discuss what is being worked on as a writer in a conference.

With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in standards 1-3). **CC3W4**
With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 3). **CC3W5**
With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others. **CC3W6**
Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **CC3W10**
Stay focused on topic by deciding what is most important, selecting details to support the topic, forming and answering questions about a topic, and gathering information (with support, as needed) about a topic from multiple resources (books, media, etc.)
Use headings, and subheadings, a table of contents, and other features to help the reader find information and understand how facts are related.

Targeted Knowledge and Skills—Process, Production and Distribution of Writing

Earlier Development ⟷ **Later Development**

Compare previous to revised writing and notice and talk about the differences.
Ability to use an editing and proofreading checklist that examines the developmentally appropriate conventions of writing (capitalization, spelling, organization, etc.).
Generate published pieces of writing that includes the following as appropriate: Titles, graphics or illustrations, labels or captions, table of contents, and dedication or author's page.

Understand the role of other writers and adults in the writing process for providing feedback, clarity, and ideas for expanding information.
Respectfully solicit suggestions, feedback, and advice from peers and adults then make changes to writing (adding, deleting, providing specificity and clarity, and/or reorganizing information) based on feedback on original draft.
Show ability to discuss what is being worked on as a writer in a conference.
Compare previous to revised writing and notice and talk about the differences.
Ability to use an editing and proofreading checklist that examines the developmentally appropriate conventions of writing (capitalization, spelling, organization, etc).
Generate published pieces of writing that includes the following as appropriate: Titles, graphics or illustrations, labels or captions, table of contents, and dedication or author's page.

Instructional Strategies and/or Activities

Small Group and Individual Conferencing Writer's Workshop Mini-lessons focusing on 6-Traits of Good Writing:

Organization
Compose writing with a beginning, middle, and ending.*
Compose nonfiction with a predictable pattern or in a logical sequence.*
Use titles and subtitles, when appropriate, for writing.*
Put related ideas together on the same page.*
Use Graphic Organizers to plan writing.

Idea Development
Communicate main points clearly.*
Follow main ideas with supportive details and examples.*
Use time as an organizing tool.*

Language use
Use language and words from books that have been read.*

Word Choice
Use words appropriate to topic and purpose.*
Vary word choice to create interesting description and dialogue.*

Voice
Write with a unique perspective.*
Write in a voice as if telling someone about an event.*
Share thoughts and feelings about a topic in a compelling way.*

Publishing
Basic Keyboarding and computer as a publishing tool.

Targeted Knowledge and Skills—Research to Build and Present Knowledge

Earlier Development ⟷ **Later Development**

Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). **CC2W7** Recall information from experiences or gather information from provided sources to answer a question. **CC2W8** Observe carefully events, people, settings, and other aspects of the world to gain information on a topic. Select the genre for the writing based on the purpose. Use resources, including the Internet, to get information on a topic.	Conduct short research projects that build knowledge about a topic. **CC3W7** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories. **CC3W8** Observe carefully events, people, settings, and other aspects of the world to gain information on a topic. Select the genre for the writing based on the purpose. Use resources, including the Internet, to get information on a topic.

Instructional Strategies and/or Activities

Individual, small group and whole group Writers' Workshop mini-lessons focusing on:

How to use resources such as books and the internet to gather and record information on a topic.
Writing how-to books including, explicit language, sequencing, checking for clarity.
Ways to organize informational writing including graphic organizers, tables of contents, charts and pictures.

Targeted Knowledge and Skills—Viewing Self as a Writer and Participating in a Range of Writing

Earlier Development ⟷ **Later Development**

Use a writer's notebook or booklet as a tool for collecting ideas, experimenting, planning, sketching, or drafting. Use sketching, webs, lists, and free writing to think about, plan for, and try out writing. Understand writing as a vehicle to communicate meaning. View self as a writer and take risks. Write with independence, initiative, and investment of ideas and time. Attend to the language and craft of other writers in order to learn more as a writer in addition to being willing to work at the craft of writing, incorporating new learning from instruction. Select best pieces of writing from own collection and give reasons for the selections. Self-evaluate own writing and talk about what is good about it as well as what techniques were used. State what was learned from each piece of writing.	Use a writer's notebook or booklet as a tool for collecting ideas, experimenting, planning, sketching, or drafting. Use sketching, webs, lists, and free writing to think about, plan for, and try out writing. Understand writing as a vehicle to communicate meaning. View self as a writer and take risks. Write with independence, initiative, and investment of ideas and time. Attend to the language and craft of other writers in order to learn more as a writer in addition to being willing to work at the craft of writing, incorporating new learning from instruction. Select best pieces of writing from own collection and give reasons for the selections. Self-evaluate own writing and talk about what is good about it as well as what techniques were used. State what was learned from each piece of writing.

Instructional Strategies and/or Activities

Daily opportunities to begin or extend a piece of writing.
Reading journal writing.
Research project.

Small group and individual conferencing, writer's workshop mini-lessons focusing on:

Generating ideas.
Planning and organizing.
Using authors as mentors to look at style and voice.
Self evaluation and metacognition.

Targeted Knowledge and Skills—Conventions

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC2L1/CC3L1**

Earlier Development ⟷ **Later Development**

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC2L1**
- Use collective nouns (e.g., *group*). **CC2L1a**
- Form and use frequently occurring irregular plural nouns (e.g., *feet, children, teeth, mice, fish*). **CC2L1b**
- Use reflexive pronouns (e.g., *myself, ourselves*). **CC2L1c**
- Form and use the past tense of frequently occurring irregular verbs (e.g., *sat, hid, told*). **CC2L1d**
- Use adjectives and adverbs, and choose between them depending on what is to be modified. **CC2L1e**
- Produce, expand, and rearrange complete simple and compound sentences (e.g., *The boy watched the movie*; *The little boy watched the movie*; *The action movie was watched by the little boy*). **CC2L1f**

Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC2L2**
- Capitalize holidays, product names, and geographic names. **CC2L2a**
- Use commas in greetings and closings of letters. **CC2L2b**
- Use an apostrophe to form contractions and frequently occurring possessives. **CC2L2c**
- Use an intuitive logic developed over time to guide the spelling of unfamiliar words and use spelling patterns and rules correctly most of the time; making correct spellings less random.
- Generalize learned spelling patterns when writing words (e.g., cage□→badge; boy□→boil). **CC2L2d**
- Consult reference materials, including beginning dictionaries, as needed to check and correct spellings. **CC2L2e**

Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC2L3**
- Compare formal and informal uses of English. **CC2L3a**

Remove the ending from a base word to make a new word (*running, run*).

Recognize and use common prefixes (*re-, un-*).

Use a range of complete sentences (*declarative, interrogative, exclamatory*).

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC3L1**
- Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. **CC3L1a**
- Form and use regular and irregular plural nouns. **CC3L1b**
- Use abstract nouns (e.g., *childhood*). **CC3L1c**
- Form and use regular and irregular verbs. **CC3L1d**
- Form and use the simple verb tenses (e.g., *I walked; I walk; I will walk*). **CC3L1e**
- Ensure subject-verb and pronoun-antecedent agreement.* **CC3L1f**
- Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. **CC3L1g**
- Use coordinating and subordinating conjunctions. **CC3L1h**
- Produce simple, compound, and complex sentences. **CC3L1i**

Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC3L2**
- Capitalize appropriate words in titles. **CC3L2a**
- Use commas in addresses. **CC3L2b**
- Use commas and quotation marks in dialogue. **CC3L2c**
- Form and use possessives. **CC3L2d**
- Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words (e.g., *sitting, smiled, cries, happiness*). **CC3L2e**
- Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words. **CC3L2f**
- Consult reference materials, including beginning dictionaries, as needed to check and correct spellings. **CC3L2g**

Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC3L3**
- Choose words and phrases for effect.* **CC3L3a**
- Recognize and observe differences between the conventions of spoken and written standard English. **CC3L3b**

Conventions

Instructional Strategies and/or Activities

Lessons, concurrent activities and hands-on shelf work focused on: spelling patterns such as digraphs, blends, long vowel patterns, inflectional endings, syllables, prefixes and suffixes.
Lessons, concurrent activities and hands-on shelf work focused on vocabulary development, accurate word choice and common root words.
Daily editing lessons and activities focusing on spelling, capitalization and punctuation.
Lessons on using rubrics for self assessing and revising one's own writing for spelling, capitalization and punctuation.
Montessori Grammar lessons on nouns, articles, adjectives, verbs, adverbs, prepositions, conjunctions, interjections, symbolizing words within a phrase/sentence using the Montessori grammar symbols, grammar box activities.
Sentence combining.

Formative and Summative Classroom-Based Assessments for Writers 2nd-3rd (Ages 7-9)

Words Their Way Spelling Inventory (Bear, Invernizzi, Tempelton, and Johnston, 2000)
Reading Response Logs
Developmental Reading Assessment Text Levels and Word Analysis (Beaver and Carter, 2003)
Oral and Written Narrative Retellings (Paris and Paris, 2003)
Anecdotal Records of children using Montessori Language Materials (Boyd-Batstone, 2004)
Work samples related to goals in writing
Write Traits: 6-Trait Instruction and Assessment Rubrics (Spandel,)
Genre specific rubrics from *Using Rubrics to Improve Student Writing* (Hampton, Murphy, Lowry, 2009)
- Narrative
- Report of Information
- Response to Literature
- Instructions

Genre specific rubrics from International Reading Association and National Council of Teachers of English (www.readwritethink.org)
- Poetry
- Personal Narrative
- Poetry
- Non-fiction: How –To
- Research Writing
- Fiction
- Friendly Letters
- Literature Response
- Persuasive Essays

The Print Tool Evaluation and Remediation (Handwriting Without Tears)
Screener of Handwriting Proficiency (Handwriting Without Tears)
Teacher conferencing focused on mini-lessons (reflecting genres and 6-Traits)

Off-Track Indicators for Writing

Off Track Writers write less than their peers.
They do not demonstrate understanding of:
- The recursive problem solving nature of writing.
- The purpose of writing for communication.
- The role of audience.
- The features of good writing.
- Different genres and text structures in their writing.
- Planning and organizing writing.
- Conventions and their impact on meaning in their writing.
- Role of revision e.g. make fewer, usually make changes that are superficial or actually have a negative impact.

Handwriting is less legible and impedes fluency.

Resources for Writing

Writer's Workshop lessons utilizing the *Units of Study for Primary Writing* by Lucy Calkins
- Launching the Writers Workshop
- Small Moments: Personal Narrative Writing
- Writing for Readers: Teaching Skills and Strategies
- The Craft of Revision
- Authors as Mentors
- Nonfiction Writing: Procedures and Reports
- Poetry: Powerful Thoughts in Tiny Packages

Writer's Workshop lessons utilizing the *Units of Study for Teaching Writing, Grades 3 - 5* by Lucy Calkins
- Launching the Writing Workshop

Raising the Quality of Narrative Writing
Writing Fiction: Big Dreams, Tall Ambitions
Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction by Bear, Invernizzi, Tempelton, and Johnston
6+1 Traits of Writing, Ruth Culham
Books, Lessons, Ideas for Teaching the Six Traits, Vicki Spandel
Using Rubrics to Improve Student Writing, Sally Hampton, Sandra Murphy, Margaret Lowry
Wondrous Words, Katie Wood Ray
Creating Writers Through 6-Trait Writing Assessment and Instruction, Vicki Spandel
Creating Young Writers: Using the Six Traits to Enrich Writing Process in Primary Classrooms, Vicki Spandel
Second Grade Writers, Stephanie Parsons
Craft Lessons: Teaching Writing in K-8, Ralph Fletcher and Joann Portalupi
Scaffolding Young Writers, Linda Dorn and Carla Soffos
Best Practices in Writing Instruction, Graham, MacArthur, Fitzgerald
National Writing Project at http://www.nwp.org/
ReadWriteThink at http://www.readwritethink.org

4th-6th (Ages 9-12)

English Language Arts Curriculum

The Center for Montessori Advancement
at
Wilmington Montessori School

This document is the core of the curriculum plan for the child as described above. This document allows teachers to identify assessments to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

English Language Arts Curriculum Continua for Automatic Strategic Readers

Guided Reading Levels R,S,T,U,V,W from Fountas and Pinnell, New Standards 4th/5th Grades (Committee, 1999)
Grades 4-6 (Ages 9-12)

Foundational Skills

Enduring Understandings	Essential Questions	Transfer Goals
Good readers combine knowledge of all letter-sound correspondences, syllabication patterns, and morphology to read accurately. Good readers use context clues to solve unknown words while focusing on understanding text. Good readers use resources such as the Internet, encyclopedias, dictionaries, and thesauruses to further their understanding of word meanings and pronunciations. Authors use specific language and word choice to create meaning when they write.	Why is it important to read the text accurately? Why is it necessary to know the meaning of each word I read? How do prefixes, suffixes, and root words help us make meaning of print? What are different strategies I can use to figure out the meaning of words that I do not know?	Integrate their knowledge of the foundation skills with their abilities to think within, beyond, and about text to independently read and comprehend literature. Demonstrate age appropriate reading habits Use this knowledge of reading to read: Books for pleasure poetry, books, magazines, websites, and other informational texts for school learning and personal interests Their personal writing and classmates writings Environmental print in the classroom and larger community Detailed instructions

Targeted Knowledge and Skills—Phonics and Word Recognition Know and apply grade-level phonics and word analysis skills in decoding words. **CC4RF3, CC5RF3** **Earlier Development** ⟷ **Later Development**		
Know and apply grade-level phonics and word analysis skills in decoding words. **CC4RF3** Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. **CC4RF3a**	Know and apply grade-level phonics and word analysis skills in decoding words. **CC5RF3** Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. **CC5RF3a**	Should be fully developed and not require instruction.

Instructional Strategies and/or Activities

Phonics and Word Recognition
- Morphemes: Latin and Greek roots (for spelling and building vocabulary)
- Dictionary, Thesaurus, Encyclopedia work

Targeted Knowledge and Skills -Vocabulary Acquisition and Use

Determine or clarify meaning of unknown and multiple-meaning words and phrases and explore word relationships and nuances in word meanings. **CC4L4/CC5L5/CC6L6**

Earlier Development ⟷ **Later Development**

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 4 reading and content*, choosing flexibly from a range of strategies. **CC4L4** Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. **CC4L4a** Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). **CC4L4b** Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. **CC4L4c** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. **CC4L5** Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. **CC4L5a** Recognize and explain the meaning of common idioms, adages, and proverbs. **CC4L5b** Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). **CC4L5c** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g. *quizzed, whined, stammered*) and that are basic to a particular topic (e.g., *wildlife, conservation*, and *endangered* when discussing animal preservation). **CC4L6** Recognize and actively work to learn the meaning of new vocabulary words, including complex, specialized, and technical words.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 5 reading and content*, choosing flexibly from a range of strategies. **CC5L4** Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. **CC5L4a** Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). **CC5L4b** Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. **CC5L4c** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. **CC5L5** Interpret figurative language, including similes and metaphors, in context. **CC5L5a** Recognize and explain the meaning of common idioms, adages, and proverbs. **CC5L5b** Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. **CC5L5c** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g. *however, although, nevertheless, similarly, moreover, in addition*) and that are basic to a particular topic (e.g., *wildlife, conservation*, and *endangered* when discussing animal preservation). **CC5L6** Recognize and actively work to learn the meaning of new vocabulary words, including complex, specialized, and technical words.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 6 reading and content*, choosing flexibly from a range of strategies. **CC6L4** Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. **CC6L4a** Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). **CC6L4b** Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or part of speech. **CC6L4c** Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. **CC6L5** Interpret figures of speech (e.g., personification) in context. **CC6L5a** Use relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. **CC6L5b** Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping; economical, thrifty*). **CC6L5c** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. **CC6L6**

Instructional Strategies and/or Activities

Phonics and Word Recognition
Morphemes: Latin and Greek roots (for spelling and building vocabulary)
Dictionary, Thesaurus, Encyclopedia work

Targeted Knowledge and Skills—Comprehension
Thinking WITHIN the Text - ABOUT the Text - BEYOND the Text

Enduring Understandings Within the Text

Authors use specific features of text to help readers make meaning and identify the purpose of the text.

Authors use similar story elements in their writing and these elements can help readers make sense of text.

Reading involves making sense of the text, not just decoding the words.

Good readers create an effective recounting of literary text(s) that includes characters, setting, problem, events, and solutions as well as any key ideas and details.

Authors include key details in informational and literary texts in order to help readers make sense of the text and to help a reader ask and answer questions about the text.

Good readers use key details and text features (graphic organizers, maps, schedules, etc.) found in information text to identify the main topic or theme.

Good readers use multiple strategies to help them understand what they are reading.

Readers can use their own experiences and what they know to build their understanding of what they read.

Good readers use multiple strategies to help them make inferences about what they are reading.

Enduring Understandings About the Text

Different readers may respond to the same text in different ways.

Reading for meaning requires readers to be active and engaged during the reading process, continually thinking about what the author is saying, why the author is saying what they are, and how that agrees or disagrees with the readers way of thinking.

Authors provide reasons, examples, lists, maps, graphs, comparisons, and contrasts in informative text to support their points and ideas.

Continued

Good readers identify the reasons and examples an author uses to enhance their understanding about text.

Good readers recognize and understand the organizing structures of text and how that contributes to the

Essential Questions Within the Text

What do automatic and strategic readers do?

What do automatic and strategic readers do when they do not understand how to read a word?

What do automatic and strategic readers do when they do not understand the meaning of a word or sentence?

How does the purpose of writing contribute to the author's choice of words?

How do texts differ?

How are texts the same?

How should I read different types of text?

What is the author telling me?

What does a reader gain by recounting a text?

How can I use text features to understand informational texts?

Why is it important to know who is telling the story?

How are stories about other places and times about me?

Essential Questions About the Text

What is the author trying to say in the text? What evidence can be found to support what I think the author is saying?

Do I agree or disagree with the author? Why or why not?

What makes a great book or story?

What is the relationship between popularity and greatness in literature?

What is the relationship between fiction and truth?

What should I do when I agree or disagree with the author?

How does noticing the words the author uses make me a better reader?

How does understanding the organization of text structures help me construct meaning from the text?

Continued

Essential Questions Beyond the Text

What is the author saying?

How do I know what the author is saying?

Transfer Goals

Integrate their knowledge of the foundation skills with their abilities to think within, beyond, and about text to independently and proficiently read and comprehend literature.

Demonstrate age appropriate reading habits.

Use this knowledge of reading to read a wide variety of literature including:

- Books.
- Poetry.
- Magazines.
- Websites.
- Other informational texts for school learning, pleasure, and personal interests.
- Their personal writing and classmates writings.
- Environmental print in the classroom and larger community.

Targeted Knowledge and Skills—Comprehension—Continued
Thinking WITHIN the Text - ABOUT the Text - BEYOND the Text

meaning of the text.
Good readers notice the author's "craft," the author's ability to make characters appear real, the word choices and sentence structures of the text, and how that affects the meaning derived from the text.

Enduring Understandings Beyond the Text

Readers can use their own experiences and what they know to build their understanding of what they read.
Good readers use multiple strategies to help them make inferences about what they are reading.
Good readers use both the text and the graphics to understand the text.
Good readers make connections between individuals, events, ideas, and information to better understand informational and fictional text.
Sometimes authors make their meaning clear; often, however, a reader must think about the text to find the meaning the author intended as well as the author's point of view on a topic.
Good readers use all they know in order to be able to effectively use the information.
Good readers continually make predictions; before, during, and after they have read a piece of text.

How do I read between the lines to fully understand what the author is saying?

Essential Questions Beyond the Text

What is the author's perspective or point of view?
What can I use to help me make predictions?
How do I know if I am making correct predictions?
What should I do if my prediction is incorrect?
How do connections I make with the story help me better understand the text?
What do readers do when they do not understand?

Targeted Knowledge and Skills—Solving Words (Within the Text)

Using a range of strategies to take words apart and understand what words mean while reading continuous text

Earlier Development ⟷ **Later Development**

Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a Grade 4 topic or subject area. **CC4RI4** Predict word meaning based on context cues. Use a range of cueing systems, e.g., phonics and context clues, to determine pronunciation and meanings. Recognize subtle meaning for words used in context as well as new meanings for known words, including words used figuratively. Understand the meaning of words when they are used satirically.	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a Grade 5 topic or subject area. **CC5RI4** Predict word meaning based on context cues. Use a range of cueing systems, e.g., phonics and context clues, to determine pronunciation and meanings. Recognize subtle meaning for words used in context as well as new meanings for known words, including words used figuratively.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. **CC6RI4** Recognize subtle meanings for words used in context. Keep flexible definitions of complex words in order to derive new meanings for them and understand figurative or connotative use.

Targeted Knowledge and Skills—Monitoring and Correcting (Within the Text) Checking on whether reading sounds right, looks right, and makes sense **Earlier Development** ⟷ **Later Development**		
Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a Grade 4 topic or subject area. **CC4RI4** Monitors own comprehension (metacognition is developing). Has a variety of fix-up strategies. Self-correct miscues when subsequent reading indicates an earlier miscue.	Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a Grade 5 topic or subject area. **CC5RI4** Self-correct miscues.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. **CC6RI4** Self-correct miscues.
Targeted Knowledge and Skills—Searching For and Using Information (Within the Text) **Earlier Development** ⟷ **Later Development**		
Craft and Structure in Literature & Nonfiction Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). **CC4RL4** Demonstrate understanding of the difference between fact and opinion. Identify key words, phrases, and themes specific to particular genres. Use resources (e.g., encyclopedias, CD-ROMS, thesaurus) to locate and sort information with guidance. Gather information by using the table of contents, captions, index, and glossary with guidance. Gather and uses information from graphs, charts, tables, and maps with guidance.	**Craft and Structure in Literature & Nonfiction** Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. **CC5RL4** Begin to use resources (e.g., encyclopedias, articles, Internet) to locate information. Gather information using the table of contents, captions, glossary, and index (text organizers) independently. Use the connections made to create sensory images.	**Craft and Structure in Literature & Nonfiction** Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone. **CC6RL4** Begin to develop awareness of how an author uses language, symbolism, or other literary devices to foreshadow events and outcomes. Read and understand informational texts (e.g. want ads, brochures, schedules, catalogs, manuals) with guidance. Use resources (e.g. encyclopedias, articles, Internet) to locate information independently.

Targeted Knowledge and Skills—Summarizing (Within the Text))

Putting together and carrying important information while reading, and disregarding irrelevant information

Earlier Development ⟷ **Later Development**

Key Ideas & Details for Poetry, Fiction & Nonfiction Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. **CC4RL1** Determine a theme of a story, drama, or poem from details in the text; summarize the text. **CC4RL2** Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). **CC4RL3** Determine the main idea of a text and explain how it is supported by key details; summarize the text. **CC4RI2** Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. **CC4RI3** Present and support warranted and responsible assertions about text with elaborated and convincing evidence.	**Key Ideas & Details for Poetry, Fiction & Nonfiction** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. **CC5RL1** Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.**CC5RL2** Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). **CC5RL3** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. **CC5RI1** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. **CC5RI2** Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. **CC5RI3**	**Key Ideas &Details for Poetry, Fiction & Nonfiction** Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. **CC6RL1** Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. **CC6RL2** Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. **CC6RL3** By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. **CC6RL10** Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. **CC6RI2** Connect prologues and epilogues. Identify major and minor characters, analyze their roles in the story, and recognize the importance of the characters. Present and support warranted and responsible assertions about text with elaborate and convincing evidence.

Targeted Knowledge and Skills—Maintaining Fluency (Within the Text)) Integrating sources of information in a smoothly operating process that results in expressive, phrased reading **Earlier Development** ⟷ **Later Development**		
Read with sufficient accuracy and fluency to support comprehension. **CC4RF4** Read on-level text with purpose and understanding. **CC4RF4a** Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. **CC4RF4b** Use context to confirm or self-correct word recognition and understanding, rereading as necessary. **CC4RF4c**	Read with sufficient accuracy and fluency to support comprehension. **CC5RF4** Read on-level text with purpose and understanding. **CC5RF4a** Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. **CC5RF4b** Use context to confirm or self-correct word recognition and understanding, rereading as necessary. **CC5RF4c**	Should be fully developed and not require instruction.

Targeted Knowledge and Skills—Adjusting (Within the Text) Reading in a different ways as appropriate to purpose for reading and type of text **Earlier Development** ⟷ **Later Development**		
Read aloud with expression while responding to punctuation cues. Adjust reading strategy to genre. Notice and respond to stress and tone of voice while reading and listening to others read. Read with a rhythm, flow, and meter that resemble everyday speech.	Read aloud with fluency, expression, and confidence. Adjust reading strategy to genre. Notice and respond to stress and tone of voice while reading and listening to others read.	Read aloud with fluency, expressions, and confidence. Adjust reading strategy to genre. Notice and respond to stress and tone of voice while reading and listening to others read.

Targeted Knowledge and Skills—Analyzing (About the Text)

Examination of the elements of a text to know more about how it is constructed

Earlier Development ⟷ **Later Development**

Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. **CC4RL5** Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. **CC4RL6** Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. **CC4RI3** Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. **CC4RI5** Explain how an author uses reasons and evidence to support particular points in a text. **CC4RI8** Discuss setting, plot, characters, and point of view (literary elements) with guidance. Evaluate writing strategies and elements of author's craft. Analyze an author's characteristic way of writing-characters, plot, style. Analyze the way an author creates authentic characters. Notice how the writer reveals the underlying messages or the theme of a text (through a character, plot, or events). Notice and understand text structure including description, temporal sequence, comparison and contrast, cause and effect, and problem and solution. Recognize and discuss argument and persuasion providing evidence to support argument.	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem. **CC5RL5** Describe how a narrator's or speaker's point of view influences how events are described. **CC5RL6** By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently. **CC5RL10** Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. **CC5RI3** Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). **CC5RI8** Discuss setting, plot, characters, and point of view (literary elements). Evaluate writing strategies and elements of author's craft including quality or authenticity of the text and the writer's qualifications. Analyze an author's characteristic way of writing-characters, plot, style. Analyze the way an author creates authentic characters. Notice how the writer reveals the underlying messages or the theme of a text (through a character, plot, events). Notice and understand when the writer uses description, temporal sequence, comparison and contrast, cause and effect, and problem and solution. Present and support warranted and responsible assertions about text with elaborated and convincing evidence. Identify genres that are embedded in texts of other genres.	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot. **CC6RL5** Explain how an author develops the point of view of the narrator or speaker in a text. **CC6RL6** Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). **CC6RI3** Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. **CC6RI5** Reflect on and discuss their analysis of the text with others in both written and oral form. Evaluate writing strategies and elements of author's craft including quality or authenticity of the text and the writer's qualifications. Identify literary devices (e.g. similes, metaphors). Notice and understand when the writer uses description, temporal sequence, comparison and contrast, cause and effect, and problem and solution. Identify internal and external conflicts, contradictions, facts, and opinions. Evaluate the effectiveness of author's use of literary devices such as exaggeration, imagery, and personification. Gather and analyze information from graphs, charts, tables, and maps with guidance.

Targeted Knowledge and Skills—Critiquing (About the Text)

Evaluating a text based on the reader's personal, world, or text knowledge

Earlier Development		Later Development
Critically examine the writer's word choice, organization of informational text features (categories, sequence), use of graphics and illustrations to enhance meaning. Evaluate the quality or authenticity of the text, including the writer's qualifications. Think critically about informational texts in terms of quality of writing, accuracy, and the logic of conclusions.	Critically examine the writer's word choice, organization of informational text features (categories, sequence), use of graphics and illustrations to enhance meaning. Critically examine various text types in terms of quality of writing, accuracy, logic of conclusions, authenticity of characters, accurate portrayal of issues, and appropriate voice and tone. Recognize the writer's choice of first, second, or third person and discuss and hypothesize the reasons for this decision. Recognize that a fiction text is told from the perspective of one or more characters and hypothesize the writer's rationale for choosing this perspective.	Critically examine the writer's word choice, organization of informational text features (categories, sequence), use of graphics and illustrations to enhance meaning. Critically examine various text types in terms of quality of writing, accuracy, logic of conclusions, authenticity of characters, accurate portrayal of issues, and appropriate voice and tone. Recognize and think critically about argument and persuasion. Derive and critique the moral lesson of a text. Recognize bias in fiction and nonfiction texts.

Targeted Knowledge and Skills—Predicting (Beyond the Text)

Thinking about what will follow while reading continuous text

Earlier Development		Later Development
Relate new information to prior knowledge and experience. With guidance, make predictions based on information in the text as to what will happen, what characters are likely to do, and how it will end. Notice new information and ideas and revise ideas in response to the information. Notice and discuss the information provided in section titles, headings, and subheadings to predict information provided in a text.	Relate new information to prior knowledge and experience. Make predictions based on information in the text as to what will happen, what characters are likely to do, and how it will end. Notice new information and ideas and revise ideas in response to the information. Notice and discuss the information provided in section titles, headings, and subheadings to predict information provided in a text.	Relate new information to prior knowledge and experience. Consistently make predictions before, during, and after reading using evidence from the text to support thinking.

Targeted Knowledge and Skills—Making Connections — Personal, World, Text (Beyond the Text)

Searching for and using connections to knowledge that readers have gained through their personal experiences, learning about the world, and reading other texts

Earlier Development ⟷ **Later Development**

Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. **CC4RL7**	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). **CC5RL7**	Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch. **CC6RL7**
Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. **CC4RL9**	Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. **CC5RL9**	Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. **CC6RL9**
By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4-5 text complexity band proficiently, with scaffolding as needed at the high end of the range. **CC4RL10**	Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. **CC5RI3**	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). **CC6RI3**
Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. **CC4RI3**	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/ solution) of events, ideas, concepts, or information in two or more texts. **CC5RI5**	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. **CC6RI6**
Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. **CC4RI6**	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. **CC5RI6**	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. **CC6RI7**
Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. **CC4RI7**	Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. **CC5RI9**	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not. **CC6RI8**
Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. **CC4RI9**	Make perceptive and well developed connections to related topics or information.	Compare and contrast one author’s presentation of events with that of another (e.g. a memoir written by and a biography about the same person). **CC6RI9**
Make perceptive and well developed connections to related topics or information.	Make connections to other texts by topic, major ideas, authors’ styles, and genres.	Make perceptive and well developed connections to related topics or information.
Make connections to other texts by topic, major ideas, authors’ styles, and genres.	Make connections using sensory imagery in fiction and poetry	Make connections using sensory imagery.
		Make connections among informational texts and historical fiction and content area study, using information from one setting to assist comprehending in the other.
		Identify and discuss cultural and historical perspectives that are in conflict in the text or that are different from their own perspective.

Targeted Knowledge and Skills—Synthesizing (Beyond the Text)

Putting together information from the text and from the reader's own background knowledge in order to create new understandings

Earlier Development ⟷ **Later Development**

With guidance, make connections between the lives and motivations of characters and their own lives, even if the setting is a fantasy world or in the past. With guidance, support thinking beyond the text with specific evidence based on personal experience or knowledge or evidence from the text. With guidance, identify and discuss cultural and historical perspectives that are in conflict in the text or that are different from their own perspective.	Make connections between the lives and motivations of characters and their own lives, even if the setting is a fantasy world or in the past. Support thinking beyond the text with specific evidence based on personal experience or knowledge or evidence from the text. Identify and discuss cultural and historical perspectives that are in conflict in the text or that are different from their own perspective. Change opinions or understandings based on new information or insights gained from fiction or nonfiction texts. Recognize, understand, and discuss symbolism.	Draw on prior experiences as well as other texts, read to create meaningful conclusions, and form their own opinions and beliefs. Support thinking beyond the text with specific evidence based on personal experience or knowledge or evidence from the text. Change opinions or understandings based on new information or insights gained from fiction or nonfiction texts. Think deeply about social issues as revealed in realistic and historical fiction and discuss ideas with others.

Targeted Knowledge and Skills—Inferring (Beyond the Text)

Going beyond the literal meaning of a text to think about what is not there but is implied by the writer

Earlier Development ⟷ **Later Development**

Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. **CC4RI1** With guidance, infer characters' feelings and motivations from description, what they say or do, and what others think about them. With guidance, hypothesize underlying motivations of characters that are not stated. With guidance, using illustrations to interpret the mood of the text in combination with the writer's tone. Derive and interpret the writer's underlying messages (themes). With guidance, hypothesize the significance of the setting in influencing characters' decisions and attitudes.	Begin to gain deeper meaning by "reading between the lines." Infer characters' feelings and motivations from description, what they say or do, and what others think about them. Using illustrations to interpret the mood of the text in combination with the writer's tone. Recognize the writer's choice of first, second, or third person, and discuss and hypothesize the reasons for this decision. Derive and interpret the writer's underlying messages (themes). Hypothesize underlying motivations of characters that are not stated. Hypothesize the significance of the setting in influencing characters, decisions and attitudes.	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. **CC6RI1** Probe for deeper meaning by "reading between the lines" in response to literature. Understand and discuss main and supporting characters and their development using information from description; what characters say, think, and do; and what other characters say and think about them. Understand subtexts where the author is saying one thing but meaning another. Hypothesize reasons for character development.

Instructional Strategies and/or Activities
Comprehension
Thinking WITHIN the Text - ABOUT the Text - BEYOND the Text

Comprehension: Thinking within, about, and beyond text
Small Group and Literature Study lessons on:

Solving Words/Monitoring and Correcting
Word Study Lessons – Words Their Way
Vocabulary development with Tier 2 Words
Teacher modeling and Think Alouds
Literature circles
Silent reading
Reading for information
Searching for and using information
Literature discussion: point of view, figurative speech, character and plot analysis
Exploration of text structure: fiction vs. non-fiction (encyclopedia, magazine articles, non-fiction text—index, chapters, glossary, etc.)
Graphic Organizers
Reading Response Logs
Written responses to literature
Post- it note strategies
Text Coding

Summarizing
Graphic Organizers
Written responses to literature
Using evidence from text to support ideas (in writing and discussion)
Writing an effective summary on DRA and other assessments when called for

Making connections
Teacher Modeling and Think Alouds on Connecting literature to self, other books, and the world.
Literature discussions
Written responses to literature
Reading Response Logs
Book Talks/ Literature Circles

Inferring/predicting
KWL Charts
Activating Prior Knowledge
Prediction Charts and Graphic Organizers
Literature Discussions
Written response to literature
Think alouds, modeled and shared with the group

Analyzing/critiquing
Reading widely to have enough experience to analyze and critique an author's work
Book Talks/ Literature Circles
Lessons on Author craft
Genres in the classroom
Individual authors: who they are, what they write, and how they write
Elements of fiction: character, plot, pace, voice, point of view, setting, leads, conclusion, etc.
Figurative language: personification, metaphor, simile
Poetry

Viewing Self as Reader Habits to Watch For

Later Automatic Readers—Reading a Lot

Read medium level chapter books
Choose reading materials at the appropriate level
Expand knowledge of different genres (e.g., realistic fiction, historical fiction, and fantasy).
Read silently for 30 minute periods
Read 30 books or book equivalents a year including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature.

Discussing Books

Discuss setting, plot, characters, and point of view (literary elements) with guidance.
Respond to issues and ideas in literature as well as facts or story events.
Make connections to other authors, books, and perspectives.
Participate in small group literature discussions with guidance.
Use reasons and examples to support ideas and opinions with guidance.

Reading Vocabulary

Increase vocabulary by using context cues, other reading strategies, and resources (e.g., dictionary and thesaurus) with guidance.

Early Strategic Readers—Reading a Lot

Select appropriate or challenging level texts for independent reading
Select, read, and finish a wide variety of genres with guidance.
Begin to develop strategies and criteria for selecting reading materials.
Read silently for extended periods (30–40 min.).
Read 30 books or book equivalents a year including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature.

Discussing Books

Begin to discuss literature with reference to setting, plot, characters, and theme (literary elements) and author's craft.
Generate thoughtful oral and written responses in small group literature discussions with guidance
Add to one another's responses
Share agreement or disagreement
Pose real questions

Reading Vocabulary

Begin to use new vocabulary in different subjects and in oral and written response to literature
Begin to use resources (e.g., dictionary and thesaurus) to increase vocabulary in different subject areas.

Later Strategic Readers—Reading a Lot

Read complex children's literature.
Develop strategies and criteria for selecting reading materials independently.
Read 30 books or book equivalents a year including magazines, newspapers, textbooks, and on-line materials as well as traditional and contemporary literature.

Discussing Books

Discuss literature with reference to theme, author's purpose, and style (literary elements), and author's craft.
Begin to generate in-depth responses in small group literature discussions
Use increasingly complex vocabulary in different subjects and in oral and written response to literature.
Reflect on and discuss their analysis of the text with others in both written and oral form.

Reading Vocabulary

Use resources (e.g., dictionary and thesaurus) to increase vocabulary independently.

Assessments for Foundational Skills—P=Progress Monitoring, S=Screening, D=Diagnostic, E=Program Evaluation

Formal Assessments

Developmental Reading Assessment Text Levels and Word Analysis (Beaver & Carter, 2003) **(P,D,E)**
Gray Oral Reading Test (Wiederholt, J.L. & Bryant, B.R., 2001) **(P,D)**

Informal Assessments

Written Narrative Retellings / Summaries **(P)**
Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004) **(P)**
Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000) **(P)**
Running Records – Much more synchronization of cuing systems and automatic word recognition. **(P)**
Think Alouds (comprehension strategies) (Wade, 1990) **(P)**
Reading Logs **(P)**
Motivation reading inventories (McKenna, 1990) **(P)**
Work Samples tied to goals for reading **(P)**
Curriculum Based Measurement (Fuchs, 1999, 2003) **(P,D)**
The transition may be quick and seamless, or children may experience "Fourth Grade Slump" with more demanding text (Snow, Burns, & Griffin, 1998; Spear-Swerling & Sternberg, 1996).

Text Characteristics

Later Automatic Readers	Early Strategic Readers	Later Strategic Reader
By the end of the year, read and comprehend informational texts in the 4th-5th complexity band proficiency, with scaffolding as needed at the high end of the range, **CC4RL10**	By the end of the year, read and comprehend informational texts in the 4th-5th complexity band independently and proficiently. **CC5RL10**	By the end of the year, read and comprehend informational texts in the 6th-8th complexity band with scaffolding as needed at the high end of the range. CC6RL10
Series contain familiar format, structures, characters.	Texts include fully developed plots, often around a central theme, plots include climax and resolution.	Texts include fully developed plots, often touching upon complex issues.
Texts include fully developed plots.	Books touch upon challenging issues.	Settings may be in other time periods or unfamiliar locations.
Fiction includes series of episodes, problems, and solutions.	Fiction includes multiple fully-developed characters.	Texts begin to include multiple perspectives on an issue.
Fiction includes fully developed characters.	Books at this level include a variety of fiction genres as well as nonfiction.	Texts include complex sentence structure literary devices.
Nonfiction texts present simple facts in an organized structure.	Nonfiction texts present many facts in an organized structure.	Well-developed characters face complex issues and challenges.
Texts include challenging content & specific vocabulary.	Illustrations, photographs, and captions support text in nonfiction materials.	Nonfiction texts include substantial amount of information and detail.
Authors use descriptive and memorable language.	Texts include more challenging vocabulary.	Nonfiction includes table of contents, captions, a glossary, and index and may include tables, graphs, maps, and charts, illustration captions support text.
Some books include occasional illustrations.	Authors use vivid descriptive and memorable language.	Nonfiction texts may include newspapers, magazines, and manuals.
Fiction may include chapter titles and table of contents.	Fiction includes few, if any illustrations.	Texts often include specialized vocabulary.
Nonfiction may include table of contents, captions, glossary, and index.	Print size is smaller.	Reading Leveling T U V W / Lexile range 770-980.
Text runs margin to margin with a dense print format.	Text difficulty determined more by content than by length.	
Length is usually 75–200 pages.	Reading Leveling R S T U / Lexile range 770-980.	
Reading Leveling O P Q R / Lexile range 770-980.		

Examples of Text

Later Automatic Readers	Early Strategic Readers	Later Strategic Readers
Fiction	**Fiction**	**Fiction**
How to Eat Fried Worms by Thomas Rockwell	*Charlie and the Chocolate Factory* by Roald Dahl	*The Watsons Go to Birmingham – 1963* by Christopher Paul Curtis
Bunnicula by Deborah and James Howe	*Hatchet* by Gary Paulsen	*Julie of the Wolves* by Jean Craighead George
Fantastic Mr. Fox by Roald Dahl	*The Lion, the Witch, and the Wardrobe* by C. S. Lewis	*The Boggart* by Susan Cooper
Charlotte's Web by E. B. White	*My Side of the Mountain* by Jean Craighead George	*Number the Stars* by Lois Lowry
Babe: The Gallant Pig by Dick King-Smith	*Ella Enchanted* by Gail Carson Levine	*Holes* by Louis Sachar
Sarah, Plain and Tall by Patricia MacLachlan	**Nonfiction**	**Nonfiction**
Nonfiction	*Brown Honey in Broomwheat Tea* by Joyce Carol Thomas	*You Want Women to Vote, Lizzie Stanton?* by Jean Fritz (NF)
Amazing Poisonous Animals by Alexandra Parsons	*Once Upon Ice and Other Frozen Poems* by Jane Yolen	*Immigrant Kids* by Russell Freedman (NF)
Days of the Ducklings by Bruce McMillan	*Pearl Harbor is Burning! A Story of World War II* by Kathleen Kudlinski	*Leonardo Da Vinci* by Diane Stanley
Flute's Journey: The Life of a Wood Thrush by Lynne Cherry	*Muscles: Our Muscular System* by Seymour Simon □	*Himalaya: Vanishing Cultures* by Jan Reynolds □
A Light in the Attic by Shel Silverstein	*Compost stew : an A to Z recipe for the earth* by Mary McKenna Siddals	*Discovering Jupiter: The Amazing Collision in Space* by Melvin Berger
The New Kid on the Block by Jack Prelutsky		

Off-Track Indicators

Delayed Reader (Spear-Swerling Sternberg 1996)

Has automatic word recognition but may have been off track previously and done so with more difficulty than a normally developing reader.
Misses opportunities to practice comprehension strategies.
Delay in reading comprehension but has potential to learn the skills if text level is appropriate and direct instruction occurs.
Often text in the 9-12 room may be too challenging for them to develop comprehension strategies.
Mistakenly, teachers assume that if child is reading words, they can comprehend.
These children need text at the appropriate level, and direct instruction and modeling of comprehension strategies.
Three problems handicap the delayed reader: motivation, lower levels of practice and lower expectations by adults.
Classroom assessments should focus on:
Evidence of use of reading comprehension strategies (i.e. reading conferences and think aloud)
Written and oral summaries

Sub-Optimal Reader (Spear-Swerling Sternberg 1996)

Have accurate, automatic word recognition.
Routine use of some strategies to aid comprehension.
But, they fall short in terms of higher-level comprehension.
They have never been off-track in reading prior to this time.

Resources

Comprehension and Collaboration, Stephanie Harvey & Harvey Daniels
The Reading Zone, Nancy Atwell
Nonfiction Matters, Stephanie Harvey
Comprehension and Fluency, Fountas & Pinnell
Guiding Readers and Writers, Fountas & Pinnell
Strategies That Work, Stephanie Harvey & Anne Goudvis
Revisit, Reflect, Retell, Linda Hoyt
Fourth Grade Readers, Martha Heller-Winokaur & Marcia Uretsky
Mini-Lessons for Literature Circles, Harvey Daniels & Nancy Steineke
Words Their Way, Bear, Invernizzi, Templeton and Johnston
Book Title Resource: http://www.fountasandpinnellleveledbooks.com/

Speaking and Listening 4th-6th (Ages 9-12)

Enduring Understandings	Essential Questions	Transfer Goals
Good listening and speaking skills help us better understand each other. Our speaking and listening skills grow through our experiences and the feedback from teachers and peers. Listening and responding to what we hear develops our understanding and knowledge. With practice we become clear and effective communicators. Good listeners compare what they are hearing to what they already know. Communication can sometimes involve disagreeing with what a speaker says.	Why speak? What do good speakers sound like? How do good speakers express their thoughts and feelings? What makes a speaker "good"? How is spoken language different from written language? What am I trying to say when I speak? To whom am I speaking? How can I help my audience understand me? What does a good listener do? Can a person "hear" but not "listen"? How does what I hear compare with what I already know?	The students will speak clearly and at length to be understood. The students will integrate what they know from their experiences and conversations. The students will refine their listening skills to better understand others. The students will explain and seek information. The students will adapt their speech based on the situation, context, task and/or audience. Through listening and discussion students will gain an increasingly complex working vocabulary.

Targeted Knowledge and Skills—Comprehension and Collaboration

Earlier Development		Later Development
Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. **CC4SL1** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. **CC4SL1a** Follow agreed-upon rules for discussions and carry out assigned roles. **CC4SL1b** Pose and respond to specific questions to clarify or follow up on information; make comments that contribute to the discussion and link to the remarks of others. **CC4SL1c** Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. **CC4SL1d** Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. **CC4SL2** Identify the reasons and evidence a speaker provides to support particular points. **CC4SL3**	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly. **CC5SL1** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. **CC5SL1a** Follow agreed-upon rules for discussions and carry out assigned roles. **CC5SL1b** Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. **CC5SL1c** Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. **CC5SL1d** Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. **CC5SL2** Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence. **CC5SL3**	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. **CC6SL1** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. **CC6SL1a** Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. **CC6SL1b** Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. **CC6SL1c** Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. **CC6SL1d** Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study. **CC6SL2** Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not. **CC6SL3**

Targeted Knowledge and Skills—Comprehension and Collaboration

Instructional Strategies and/or Activities

In group discussions such as morning meeting, small group lessons, literature circles, and whole group lessons, teachers use modeling, think-alouds and specific instructional strategies such as:

Expressing ideas clearly.
Drawing on material read to support ideas and opinions.
Creating and following rules for discussions.
Asking and answering questions of another speaker.

Targeted Knowledge and Skills—Presentation of Ideas

Earlier Development ⟷ **Later Development**

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC4L1** Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC4L3** Choose words and phrases to convey ideas precisely.* **CC4L3a** Choose punctuation for effect.* **CC4L3b** Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). **CC4L3c** Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. **CC4SL4** Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. **CC4SL5** Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 on pages 28 and 29 for specific expectations.) **CC4SL6**	Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC5L3** Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. **CC5L3a** Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems. **CC5L3b** Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. **CC5SL4** Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. **CC5SL5** Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 on pages 28 and 29 for specific expectations.) **CC5SL6**	Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC6L3** Vary sentence patterns for meaning, reader/listener interest, and style.* **CC6L3a** Maintain consistency in style and tone.* **CC6L3b** Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. **CC6SL4** Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. **CC6SL5** Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See Grade 6 Language standards 1 and 3 on page 52 for specific expectations.) **CC6SL6**

Targeted Knowledge and Skills—Presentation of Ideas

Instructional Strategies and/or Activities

Lessons related to retelling a story or event with appropriate detail and description, with awareness of audience.
Morning meeting sharing of news and events.
Presentation of independent or collaborative partner or group projects.

Assessments for Speaking and Listening

Oral and Written Narrative Retellings (Paris and Paris, 2003)
Anecdotal Records of children using Montessori Language Materials (Boyd-Batstone, 2004)
Speaking and Listening Rubric Grades K-6 (Reading/Language Arts Framework for California Public School: Kindergarten through Grade twelve, CDE 1999)
Grades K-6 Listening and Speaking Rubrics at http://old.sandi.net/depts/literacy/rubrics/list_speak.pdf

Resources

Montessori language albums: Resources obtained through MACTE approved Montessori training courses.
Thinkfinty, lesson plans and interactives at http://www.thinkfinity.org/

ReadWriteThink, lesson plans and interactives at http://www.readwritethink.org/

Responsive Classroom Resource Book Level 1 and 2, Northeast Foundation for Children, Inc.
Responsive Classroom Morning Message and other Shared Writing, Northeast Foundation for Children, Inc.
Responsive Classroom : Teaching Children to Care Classroom Management for Ethical and Academic Growth by Ruth Sidney Charney
Responsive Classroom: The First Six Weeks of School by Paula Denton and Roxann Kriete

Writing 4th-6th (Ages 9-12)

Enduring Understandings	Essential Questions	Transfer Goals
Writers communicate with one another and express their ideas and stories through print. Using the writing process will help me become a better writer. People write for many different purposes and audiences.	Why Write? Why share personal experiences in writing? How is written language different from spoken language? What makes writing worth reading? How do writers express their thoughts and feelings? Where do ideas for writing come from? What am I trying to communicate through my writing? Why does the audience matter in my writing? Why is it important to use specific words? How do I use words and sentences to communicate my thoughts, feelings, ideas, and stories? How do I keep a reader interested in my writing?	Writers capably communicate with one another and express their ideas and stories through print. Students use the conventions of language to help them communicate clearly. Students will use the writing process to revise and edit their writing for clarity. Students will use technology to produce and publish writing. Students will recognize the link between writing and the written word (reading). Students will write for a variety of purposes and audiences in the following genres: Personal narratives. Poetry. Informational/Non-fiction including How-to. Fiction. Persuasive Essays. Summaries of fiction/non-fiction. Letter writing.

Targeted Knowledge and Skills - Purpose and Genre

Earlier Development ⟷ **Later Development**

Write opinion pieces on topics or texts, supporting a point of view with reasons and information. **CC4W1**
- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. **CC4W1a**
- Provide reasons that are supported by facts and details. **CC4W1b**
- Link opinion and reasons using words and phrases (e.g., for instance, in order to, in addition). **CC4W1c**
- Provide a concluding statement or section related to the opinion presented. **CC4W1d**

Write informative/explanatory texts to examine a topic and convey ideas and information clearly**. CC4W2**
- Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. **CC4W2a**
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. **CC4W2b**
- Link ideas within categories of information using words and phrases (e.g., another, for example, also, because). **CC4W2c**
- Use precise language and domain-specific vocabulary to inform about or explain the topic. **CC4W2d**
- Provide a concluding statement or section related to the information or explanation presented. **CC4W2e**

Continued

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. **CC4W3**

Write opinion pieces on topics or texts, supporting a point of view with reasons and information. **CC5W1**
- Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. **CC5W1a**
- Provide logically ordered reasons that are supported by facts and details. **CC5W1b**
- Link opinion and reasons using words, phrases, and clauses (e.g., consequently, specifically). **CC5W1c**
- Provide a concluding statement or section related to the opinion presented. **CC5W1d**

Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **CC5W2**
- Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. **CC5W2a**
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. **CC5W2b**
- Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially). **CC5W2c**
- Use precise language and domain-specific vocabulary to inform about or explain the topic. **CC5W2d**
- Provide a concluding statement or section related to the information or explanation presented. **CC5W2e**

Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. **CC5W3**
- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. **CC5W3a**

Continued

- Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. **CC5W3b**

Write arguments to support claims with clear reasons and relevant evidence. **CC6W1**
- Introduce claim(s) and organize the reasons and evidence clearly. **CC6W1a**
- Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. **CC6W1b**
- Use words, phrases, and clauses to clarify the relationships between claim(s) and reasons. **CC6W1c**
- Establish and maintain a formal style. **CC6W1d**
- Provide a concluding statement or section that follows from the argument presented. **CC6W1e**

Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. **CC6W2**
- Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. **CC6W2a**
- Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. **CC6W2b**
- Use appropriate transitions to clarify the relationships among ideas and concepts. **CC6W2c**
- Use precise language and domain-specific vocabulary to inform about or explain the topic. **CC6W2d**
- Establish and maintain a formal style. **CC6W2e**

Continued

- Provide a concluding statement or section that follows from the information or explanation presented. **CC6W2f**

Earlier Development	Targeted Knowledge and Skills—Purpose and Genre ⟷	Later Development
Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. **CC4W3a** Use dialogue and description to develop experiences and events or show the responses of characters to situations. **CC4W3b** Use a variety of transitional words and phrases to manage the sequence of events. **CC4W3c** Use concrete words and phrases and sensory details to convey experiences and events precisely. **CC4W3d** Provide a conclusion that follows from the narrated experiences or events. **CC4W3e** Comment on the writer's use of graphic tools and effective ways of placing them in the text as well as how the layout contributes to the meaning and effectiveness of both fiction and nonfiction texts. Use knowledge of genre to write about the quality or characteristics of a text. Write statements of the underlying message or theme of the story and include examples from the text or rationales.	Use a variety of transitional words, phrases, and clauses to manage the sequence of events. **CC5W3c** Use concrete words and phrases and sensory details to convey experiences and events precisely. **CC5W3d** Provide a conclusion that follows from the narrated experiences or events. **CC5W3e** Comment on the writer's use of graphic tools and effective ways of placing them in the text as well as how the layout contributes to the meaning and effectiveness of both fiction and nonfiction texts. Understand writer's use more than one genre to increase engagement or make the text come alive. Write summaries reflecting understanding of graphic features (*labels, heading, subheading, sidebars, and legends*). List significant events in a story or ideas in an informational text. Provide specific examples and evidence from personal experience to support thinking beyond the text. Infer characters' feelings and motivations and include evidence from the text to support thinking. Show connections between the setting, characters, and events of a text and reader's own personal experiences. Infer the meaning of the writer's use of symbolism. Provide specific examples and evidence in writing to support written statements about the quality, accuracy, or craft of a text. Demonstrate awareness of temporal sequence, compare and contrast, cause and effect, and problem and solution. Use writing to share thinking about reading. Understand writers can learn to write hybrid texts by studying mentor texts. Represent important information about a fiction or informational text.	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. **CC6W3** Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. **CC6W3a** Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. **CC6W3b** Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. **CC6W3c** Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. **CC6W3d** Provide a conclusion that follows from the narrated experiences or events. **CC6W3e** List significant events in a story or ideas in an informational text.*

Targeted Knowledge and Skills Organization, Development, Language Usage, and Process of Writing Earlier Development ⟷ Later Development	
Organize text structure in different ways according to audience, genre, and purpose of written work. Introduce ideas followed by supportive details and examples.	Organize text structure in different ways according to audience, genre, and purpose of written work. Write using the structure of expositional non-narrative, with facts and information ordered in a logical way. Use underlying structures to present different kinds of information (established sequence, temporal sequence, compare and contrast, problem and solution, cause and effect).

Targeted Knowledge and Skills—Production and Distribution of Writing Earlier Development ⟷ Later Development		
Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3). **CC4W4** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 4). **CC4W5**	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3). **CC5W4** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5). **CC5W5** With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. **CC5W6**	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3). **CC6W4** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 6). **CC6W5** Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single setting. **CC6W6**

Targeted Knowledge and Skills—Research to Build and Present Knowledge Earlier Development ⟷ Later Development		
Conduct short research projects that build knowledge through investigation of different aspects of a topic. **CC4W7** Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. **CC4W8** Draw evidence from literary or informational texts to support analysis, reflection, and research. **CC4W9** Apply Grade 4 Reading standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). **CC4W9a** Apply Grade 4 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). **CC4W9b**	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. **CC5W7** Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work; and provide a list of sources. **CC5W8** Draw evidence from literary or informational texts to support analysis, reflection, and research. **CC5W9** Apply Grade 5 Reading standards to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). **CC5W9a** Apply Grade 5 Reading standards to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). **CC5W9b**	Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. **CC6W7** Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. **CC6W8** Draw evidence from literary or informational texts to support analysis, reflection, and research. **CC6W9** Apply grade 6 Reading standards to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). **CC6W9a** Apply grade 6 Reading standards to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). **CC6W9b**

Targeted Knowledge and Skills—Conventions

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC4L1/CC5L1/CCL61**

Earlier Development ⟷ **Later Development**

Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC4L1** Use relative pronouns (who, whose, whom, which, that) and relative adverbs (where, when, why). **CC4L1a** Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. **CC4L1b** Use modal auxiliaries (e.g., can, may, must) to convey various conditions. **CC4L1c** Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag). Form and use prepositional phrases. **CC4L1e** Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* **CC4L1f** Correctly use frequently confused words (e.g., to, too, two; there, their).* **CC4L1g** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC4L2** Use correct capitalization**. CC4L2a** Use commas and quotation marks to mark direct speech and quotations from a text. **CC4L2b** Use a comma before a coordinating conjunction in a compound sentence. **CC4L2c** Spell grade-appropriate words correctly, consulting references as needed. **CC4L2d** Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC4L3** Choose words and phrases to convey ideas precisely.* **CC4L3a** Choose punctuation for effect.* **CC4L3b** Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). **CC4L3c**	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC5L1** Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. **CC5L1a** Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses. **CC5L1b** Use verb tense to convey various times, sequences, states, and conditions. **CC5L1c** Recognize and correct inappropriate shifts in verb tense.* **CC5L1d** Use correlative conjunctions (e.g., either/or, neither/nor). **CC5L1e** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC5L2** Use punctuation to separate items in a series.* **CC5L2a** Use a comma to separate an introductory element from the rest of the sentence. **CC5L2b** Use a comma to set off the words yes and no (e.g., Yes, thank you), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?). **CC5L2c** Use underlining, quotation marks, or italics to indicate titles of works. **CC5L2d** Spell grade-appropriate words correctly, consulting references as needed. **CC5L2e** Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC5L3** Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. **CC5L3a** Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems. **CC5L3b**	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. **CC6L1** Ensure that pronouns are in the proper case (subjective, objective, possessive). **CC6L1a** Use intensive pronouns (e.g., myself, ourselves). **CC6L1b** Recognize and correct inappropriate shifts in pronoun number and person.* **CC6Lc** Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* **CC6L1d** Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* **CC6L1e** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. **CC6L2** Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* **CC6L2a** Spell correctly. **CC6L2b** Use knowledge of language and its conventions when writing, speaking, reading, or listening. **CC6L3** Vary sentence patterns for meaning, reader/listener interest, and style.* **CC6L3a** Maintain consistency in style and tone.* **CC6L3b**

Targeted Knowledge and Skills—Viewing Self as a Writer and Participating in a Range of Writing Gathering seeds, resources, small moments, experimenting with writing over various time periods. **Earlier Development** ⟷ **Later Development**		
Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **CC4W10**	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **CC5W10**	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. **CC6W10**

Instructional Strategies and/or Activities

Montessori Grammar Symbols and Sentence Analysis Materials
Sentence combining activities, small group lessons and writer's workshop focusing on application of standards to the following genres and purposes:
Text Types and Purpose
Poetry: Free Verse and Poetic Forms
Essay
Short Story/Fiction Writing
Letters: business and friendly
Book Reviews
Memoir
Advice Writing
Editorial, Commentary, Op-Ed
News Writing
Biography
Autobiography
Research Writing
Production & Distribution
Revision & Editing (Conventions, sentence fluency, word choice)
Technology Instruction including various formats (word processing, power point, blog entries, newsletters, etc)
Research to Build and Present
Research Projects (culture, 6th grade country research & GCAP presentations)
Current Events

Viewing Self as a Writer and Participating in a Range of Writing
Journal Writing: culture, math, reading, writing.
Research project.
Writing workshop.
Mini-lessons focusing on the process of writing:
Planning and organizing.
Setting goals.
Drafting.
Revision.
Editing.
Peer revision strategies.

Assessments for Writing

Genre specific rubrics from Using Rubrics to Improve Student Writing (Hampton, Murphy, Lowry, 2009)
- Narrative
- Report of Information
- Instructions
- Response to Literature

The Print Tool Evaluation and Remediation (Handwriting Without Tears)
Screener of Handwriting Proficiency (Handwriting Without Tears)
Writing Assessment Program Rubric (Educational Testing Service)
Teacher conferencing focused on mini-lessons (reflecting genres and 6-Traits)

Off-Track Indicators for Writing

Off-track writers write less than their peers. They do not demonstrate understanding of:
- The recursive problem solving nature of writing.
- The purpose of writing for communication.
- The role of audience.
- The features of good writing.
- Different genres and text structures in their writing.
- Planning and organizing writing.
- Conventions and their impact on meaning in their writing.
- Role of revision; make fewer and usually make changes that are superficial or actually have a negative impact.
- Handwriting is less legible and impedes fluency.

Writing Program Resources

Lessons That Change Writers, Nancy Atwell
Naming the World: *A Year of Poems and Lessons,* Nancy Atwell
Study Driven, A Framework for Planning Units of Study in the Writing Workshop, Katie Wood Ray
Creating Writers Through 6-Trait Writing Assessment and Instruction, Vicki Spandel
6 + 1 Traits of Writing, Ruth Culham
Books, Lesson, Ideas for Teaching the Six Traits, Vicki Spandel
A Writer's Notebook, Ralph Fletcher
Poetry Matters, Ralph Fletcher
Craft Lessons: Teaching Writing K-8, Ralph Fletcher and Joann Portalupi
Live Writing: Breathing Life into Your Words, Ralph Fletcher
Reviser's Toolbox, Barry Lane
After The End: Teaching and Learning Creative Revision, Barry Lane
The Revision Toolbox, Teaching Techniques That Work, Georgia Heard
ReadWriteThink, lesson plans and interactives at http://www.readwritethink.org/

ELA Assessment

School: Sussex Montessori School **Grade or Course: 9-12 year olds (4th, 5th, 6th Grade)**

SMS will use the Pacing Guide for Reading Instruction from the Common Core Curriculum Maps (2012) Josey-Bass Publishers to address the Foundation Skills at this level. The Charts below address the standards that are not related to Foundational Skills as they would be sequenced for the school year. The content (books, writing focus, etc) for each grouping of standards will relate to the Studies as described in Table 1. Teachers will use the combination of this scope and sequence and the Studies to develop units.

Formative Assessments

Formative Assessments provide ways for teachers to collect evidence of student learning and shape the instruction throughout the school year. The following are the various tools that SMS teachers will use to

Fourth/ Fifth/ Sixth Grade

Informal

Each of the studies allows for a variety of formative assessments. The Common Core Curriculum Maps (2012) offer a variety of project based formative assessments for SMS teachers. These integrated projects teachers will design to focus on each area of study as described in Table 1 provide opportunities for teachers to strategically collect portfolio evidence of student progress against each of the ELA standards.

A basis of the Montessori training is teacher observations. Montessori teachers are trained to collect observational records of children document evidence of learning as related to each of the standards. Teacher conferencing is an integral part of Montessori training providing opportunities for teachers to document what children use and confuse as a reader or writer. Over time, these records provide rich evidence of children's progress.

Formal

Written Narrative Retellings / Summaries
Anecdotal Records of Children using Montessori language materials and observations of literature circles (Boyd-Batstone, 2004)
Spelling Assessments (Bear, Invernizzi, Templeton, & Johnston, 2000)
Running Records – Much more synchronization of cuing systems and automatic word recognition.
Think Alouds (comprehension strategies) (Wade, 1990)
Reading Logs
Motivation reading inventories (McKenna, 1990)
Work Samples tied to goals for reading
Curriculum Based Measurement (Fuchs, 1999, 2003)
Speaking and Listening Rubric Grades K-6 (Reading/Language Arts Framework for California Public School: Kindergarten through Grade twelve, CDE 1999)
Grades K-6 Listening and Speaking Rubrics at http://old.sandi.net/depts/literacy/rubrics/list_speak.pdf

Genre specific rubrics from Using Rubrics to Improve Student Writing (Hampton, Murphy, Lowry, 2009)
- Narrative
- Report of Information

Instructions
Response to Literature
The Print Tool Evaluation and Remediation (Handwriting Without Tears)
Screener of Handwriting Proficiency (Handwriting Without Tears)
Writing Assessment Program Rubric (Educational Testing Service)
Teacher conferencing focused on mini-lessons (reflecting genres and 6-Traits)

Summative Assessments

The following assessments are summative assessments that document children's progress over longer periods of them. They are administered at the beginning, middle, and end of the school year.

DIBELS - Letter Naming Fluency, Phoneme Segmentation, Nonsense Word Fluency, Retell Fluency and Oral Reading Fluency (Kaminski, Good, Smith, & Dill, 2003).

TROLL – (Dickinson, McCabe, & Spraque, 2003).

Developmental Reading Assessment Text Levels and Word Analysis. (Beaver & Carter, 2003)

Curriculum Scope & Sequence

School: Sussex Montessori School **Grade or Course: Multi Age – 9-12 Year olds**
4th, 5th, 6th grades – English/Language Arts

SMS will use the Pacing Guide for Reading Instruction from the Common Core Curriculum Maps (2012) Josey-Bass Publishers to address the Foundation Skills at this level. The Charts below address the standards that are not related to Foundational Skills as they would be sequenced for the school year. The content (books, writing focus, etc) for each grouping of standards will relate to the Studies as described in Table 1. Teachers will use the combination of this scope and sequence and the Studies to develop units. Each study has two language arts units that will be developed by teachers. Each unit developed in Phase two of the Charter process will relate to the overall study for that time period addressing the standards as outlined below in each unit. This sequence combined with the Language Arts Continuum in the original application which identifies the Enduring Understandings, Essential Questions, and specific observable learning targets related to each standard will provide a complete picture of the ELA curriculum for SMS.

Time Line, Theme and Big Idea	Fourth Grade Common Core Standards Alignment	Fifth Grade Common Core Standards Alignment	Sixth Grade Common Core Standards Alignment
September, October, November, December, January **Year One, Study One – The Purpose of Government and Scientific Advances** **Year Two, Study One –Energy exchanges and Systems / The Historical Perspective Science** **Year Three, Study One – The diversity of life and life processes/cycles in nature and in studies of human cultures** **While the studies change in the multiage classrooms over the two year cycle, the pacing of the**	**4th Grade – Study One** **Language Arts Unit One** **6 Weeks in Length** RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or	**5th Grade – Study One** **Language Arts Unit One** **6 Weeks in Length** RL5.2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. RL.5.4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. RL.5.7. Analyze how visual and multimedia elements contribute to the	**6th Grade Study One** **Language Arts Unit One** **6 Weeks in Length** RL.6.2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. RL.6.4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.

language arts standards addressed for 4/5/6 are consistent for each year. The content from which the standards are approached changes according to the study for the year. This chart provides the guidelines for teachers for unit development in phase two of the Charter process ensuring the appropriate sequence and coverage of the standards for each grade level. Children will use a combination of reading, writing, speaking, listening and technology to gather, organize, communicate and evaluate their understandings of the world through the integrated curriculum study. Through the study of the language arts, children use literature relating to the focus of study and their personal writing to explore the concepts developed in this unit of study in the Cultural Curriculum. Literature used for the following components will be tied to the cultural study. Curriculum components include: • Interactive Read Aloud and Literature Discussion • Shared and Performance Reading • Writing about Reading • Writing • Oral, Visual and Technological	actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. RL.4.6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. RL.4.7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.6. Compare and contrast a firsthand and secondhand account of	meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). RI.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. RI.5.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. RI.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*. RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.5.2. a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.	RL.6.7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch RI.6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. RI.6.2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. RI.6.3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). RI.6.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. RI.6.6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

Communication • Phonics, Spelling and Word Study • Guided Reading	the same event or topic; describe the differences in focus and the information provided. RI.4.8. Explain how an author uses reasons and evidence to support particular points in a text. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.4.2.a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.4.2.b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.4.2.c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). W.4.2.d. Use precise language and domain-specific vocabulary to inform about or explain the topic.	W.5.2. b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.5.2. c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). W.5.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2. e Provide a concluding statement or section related to the information or explanation presented. W.5.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.5.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.5.3b Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. W.5.3c Use a variety of transitional words, phrases, and clauses to manage the sequence of events. W.5.3d Use concrete words and phrases and sensory details to convey	RI.6.9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person). W.6.3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. W.6.3a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. W.6.3b.Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. W.6.3c.Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. W.6.3d.Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. W.6.3e. Provide a conclusion that follows from the narrated

	W.4.3.a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.4.3.b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.4.9.a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific	experiences and events precisely. W.5.3e Provide a conclusion that follows from the narrated experiences or events. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.5.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text	experiences or events. W.6.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.6.5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.6.6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting. W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.6.9.a. Apply *grade 6 Reading standards* to literature (e.g.,

	details in the text [e.g., a character's thoughts, words, or actions]."). W.4.9.b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles. SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. SL.4.1.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.	[e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for discussions and carry out assigned roles. L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. L.5.1. c Use verb tense to convey	"Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). W.6.9.b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1c. Pose and respond to specific questions with elaboration and detail by making comments

	SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). L.4.1.g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* L.4.2.a. Use correct capitalization. L.4.3.a. Choose words and phrases to convey ideas precisely.* L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.5.a. Explain the meaning of simple	various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.1. e Use correlative conjunctions (e.g., *either/or, neither/nor*). L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.2. c Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). L.5.2. d Use underlining, quotation marks, or italics to indicate titles of works. L.5.2. e Spell grade-appropriate words correctly, consulting references as needed. L.5.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.	that contribute to the topic, text, or issue under discussion. L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.6.1.a. Ensure that pronouns are in the proper case (subjective, objective, possessive). L.6.1.b. Use intensive pronouns (e.g., *myself, ourselves*). L.6.1.c. Recognize and correct inappropriate shifts in pronoun number and person.* L.6.1.d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* L.6.1.e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.6.2a. Use punctuation (commas,

	similes and metaphors (e.g., *as pretty as a picture*) in context.	L.5.3. a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3. b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.5.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.5.5a Interpret figurative language, including similes and metaphors, in context.	parentheses, dashes) to set off nonrestrictive/parenthetical elements.* L.6.2b. Spell correctly. L.6.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.6.3a Vary sentence patterns for meaning, reader/listener interest, and style.* L.6.3b Maintain consistency in style and tone.* L.6.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. L.6.4a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4c Consult reference materials (e.g., dictionaries, glossaries,

		L.5.5b Recognize and explain the meaning of common idioms, adages, and proverbs. L.5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*). RF.5.3. Know and apply grade-level phonics and word analysis skills in decoding words. RF.5.3a Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. L.6.4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). L.6.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.6.5 a Interpret figures of speech (e.g., personification) in context. L.6.5.b Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. L.6.5.c Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical, unwasteful, thrifty*).

	4th Grade – Study One Language Arts Unit Two 6 Weeks in Length	5th Grade – Study One Language Arts Unit Two 6 Weeks in Length	6th Grade – Study One Language Arts Unit Two 6 Weeks in Length
	RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. RL.4.7. Make connections between the	RL.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RL.5.2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. RL.5.3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). RL.5.4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. RL.5.9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text. RI.5.3. Explain the relationships or	RL.6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. RL.6.2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. RL.6.3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. RL.6.4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone. RL.6.9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. RI.6.2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary

	text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*. RI.4.5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. RI.4.6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines,	interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. RI.5.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 5 topic or subject area*. RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. RI.5.9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. W.5.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.5.1a Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. W.5.1b Provide logically ordered reasons that are supported by facts and details. W.5.1c Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). W.5.1d Provide a concluding statement	of the text distinct from personal opinions or judgments. RI.6.3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). RI.6.4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings. RI.6.6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. RI.6.9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person). W.6.1. Write arguments to support claims with clear reasons and relevant evidence. W.6.1a Introduce claim(s) and organize the reasons and evidence clearly. W.6.1b Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. W.6.1c Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.

	animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.4.2.a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.4.2.b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.4.2.c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). W.4.2.d. Use precise language and domain-specific vocabulary to inform about or explain the topic. W.4.3. Write narratives to develop real	or section related to the opinion presented. W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.5.2. a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.5.2. b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.5.2. c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). W.5.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2. e Provide a concluding statement or section related to the information or explanation presented. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.5. With guidance and support from peers and adults, develop and	W.6.1d Establish and maintain a formal style. W.6.1e Provide a concluding statement or section that follows from the argument presented. W.6.2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. W.6.2a Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. W.6.2b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. W.6.2c Use appropriate transitions to clarify the relationships among ideas and concepts. W.6.2d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.6.2e Establish and maintain a formal style. W.6.2 f Provide a concluding statement or section that follows from

	or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.4.3.a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.4.3.b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. W.4.3.c. Use a variety of transitional words and phrases to manage the sequence of events. W.4.3.d. Use concrete words and phrases and sensory details to convey experiences and events precisely. W.4.3.e. Provide a conclusion that follows from the narrated experiences or events. W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a	strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for	the information or explanation presented. W.6.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.6.5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.6.9. a Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). W.6.9. b Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not").

	topic. W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.4.9.a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). W.4.9.b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles.	discussions and carry out assigned roles. SL.5.1. c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1. d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. SL.5.4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.5.5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. L.5.1. c Use verb tense to convey	SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1.a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1.b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1.c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. SL.6.1.d Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

	SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. SL.4.1.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). L.4.1.c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions. L.4.1.d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). L.4.1.g. Correctly use frequently	various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.1. e Use correlative conjunctions (e.g., *either/or, neither/nor*). L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.2. c Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). L.5.2. d Use underlining, quotation marks, or italics to indicate titles of works. L.5.2. e Spell grade-appropriate words correctly, consulting references as needed. L.5.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.	SL.6.5.. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.6.1a Ensure that pronouns are in the proper case (subjective, objective, possessive). L.6.1b Use intensive pronouns (e.g., *myself, ourselves*). L.6.1c Recognize and correct inappropriate shifts in pronoun number and person.* L.6.1d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* L.6.1e Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.6.2. a Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical

	confused words (e.g., *to, too, two; there, their*).* L.4.2.a. Use correct capitalization. L.4.2.b. Use commas and quotation marks to mark direct speech and quotations from a text. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.4.5.a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.	L.5.3. a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3. b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression.	elements.* L.6.2. b Spell correctly. L.6.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.6.3. a Vary sentence patterns for meaning, reader/listener interest, and style.* L.6.3. b Maintain consistency in style and tone.* L.6.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. L.6.4a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4 c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.

	4th Grade – Study One **Language Arts Unit Three** **6 Weeks in Length** RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking	**5th Grade – Study One** **Language Arts Unit Three** **6 Weeks in Length** RL.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RL.5.6. Describe how a narrator's or speaker's point of view influences how events are described. RL.5.9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. RI.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. RI.5.7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. RI.5.8. Explain how an author uses reasons and evidence to support	**6th Grade – Study One** **Language Arts Unit Three** **6 Weeks in Length** RL.6.6. Explain how an author develops the point of view of the narrator or speaker in a text. RL.6.9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. RI.6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. RI.6.6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. RI.6.8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence

	about a text. RL.4.6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. RL.4.9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text. RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*. RI.4.5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g.,	particular points in a text, identifying which reasons and evidence support which point(s). W.5.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.5.1a Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. W.5.1b Provide logically ordered reasons that are supported by facts and details. W.5.1c Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). W.5.1d Provide a concluding statement or section related to the opinion presented. W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.5.2. a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.5.2. b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples	from claims that are not. W.6.1. Write arguments to support claims with clear reasons and relevant evidence. W.6.1a Introduce claim(s) and organize the reasons and evidence clearly. W.6.1b Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. W.6.1c Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons. W.6.1d Establish and maintain a formal style. W.6.1e Provide a concluding statement or section that follows from the argument presented. W.6.2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. W.6.2. a Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when

	in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.4.1.a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. W.4.1.b.Provide reasons that are supported by facts and details. W.4.1.c. Link opinion and reasons using words and phrases (e.g., *for instance*, *in order to*, *in addition*). W.4.1.d. Provide a concluding statement or section related to the opinion presented. W.4.2.a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings),	related to the topic. W.5.2. c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). W.5.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2. e Provide a concluding statement or section related to the information or explanation presented. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. W.5.8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work,	useful to aiding comprehension. W.6.2. b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. W.6.2. c Use appropriate transitions to clarify the relationships among ideas and concepts. W.6.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.6.2. e Establish and maintain a formal style. W.6.2. f Provide a concluding statement or section that follows from the information or explanation presented. W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. W.6.9. Draw evidence from literary or informational texts to support

	illustrations, and multimedia when useful to aiding comprehension. W.4.2.b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.4.2.c. Link ideas within categories of information using words and phrases (e.g., *another*, *for example*, *also*, *because*). W.4.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. W.4.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a	and provide a list of sources. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for discussions and carry out assigned roles. SL.5.1. c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.	analysis, reflection, and research. W.6.9a Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). W.6.9b Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1. b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1. c Pose and respond to

	topic. W.4.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.4.9.a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). W.4.9.b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information	SL.5.1. d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. SL.5.3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence. L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. L.5.1. c Use verb tense to convey various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words	specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. SL.6.1. d Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. SL.6.3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not. L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.6.1. a Ensure that pronouns are in the proper case (subjective, objective, possessive). L.6.1. bUse intensive pronouns (e.g., *myself, ourselves*). L.6.1. c Recognize and correct inappropriate shifts in pronoun number and person.* L.6.1. d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and

	known about the topic to explore ideas under discussion. SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles. SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. SL.4.1.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). L.4.1.b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. L.4.1.c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions. L.4.1.d. Order adjectives within sentences according to conventional	and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4a Read grade-level text with purpose and understanding. RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression. RF.5.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	spelling when writing. L.6.2. a Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* L.6.2. b Spell correctly. L.6.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. L.6.4. a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4. b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. L.6.4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).

	patterns (e.g., *a small red bag* rather than *a red small bag*). L.4.1.g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* L.4.2.a. Use correct capitalization. L.4.2.b. Use commas and quotation marks to mark direct speech and quotations from a text. L.4.2.c. Use a comma before a coordinating conjunction in a compound sentence. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.4.5.a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context.		

	L.4.5.b. Recognize and explain the meaning of common idioms, adages, and proverbs. L.4.5.c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).		
February, March, April, May, June **Year One, Study Two – Place in Time and Space - The Universe through the eyes of science and history** **Year Two, Study Two – Producing and Consuming-** **Year Three, Study Three Earth's Dynamic Systems/Earth Regions/ and the Impact on Culture** **While the studies change in the multiage classrooms over the two year cycle, the pacing of the language arts standards addressed for 4/5/6 are consistent for each year. The content from which the standards are approached changes according to the study for the year. This chart provides the guidelines for teachers for unit development in phase two**	**4th Grade – Study Two** **Language Arts Unit Four** **6 Weeks in Length** RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in	**5th Grade – Study Two** **Language Arts Unit Four** **6 Weeks in Length** RL.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RL.5.2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. RL.5.3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). RL.5.4. Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.	**6th Grade – Study Two** **Language Arts Unit Four** **6 Weeks in Length** RL.6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. RL.6.2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. RL.6.3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. RL.6.7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.

of the Charter process ensuring the appropriate sequence and coverage of the standards for each grade level. Children will use a combination of reading, writing, speaking, listening and technology to gather, organize, communicate and evaluate their understandings of the world through the integrated curriculum study. Through the study of the language arts, children use literature relating to the focus of study and their personal writing to explore the concepts developed in this unit of study in the Cultural Curriculum. Literature used for the following components will be tied to the cultural study. Curriculum components include: • Interactive Read Aloud and Literature Discussion • Shared and Performance Reading • Writing about Reading • Writing • Oral, Visual and Technological Communication • Phonics, Spelling and Word Study • Guided Reading	mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. RL.4.6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. RL.4.7. Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text. RL.4.9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.2. Determine the main idea of a text and explain how it is supported by	RL. RL.5.6. Describe how a narrator's or speaker's point of view influences how events are described. RL.5.9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. RI.5.3. Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. RI.5.5. Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. RI.5.7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. RI.5.9. Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. W.5.2. Write informative/explanatory	RL.6.9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. RI.6.3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). RI.6.5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. RI.6.6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. RI.6.9. Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person). W.6.2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. W.6.2a Introduce a topic; organize ideas, concepts, and information, using

	key details; summarize the text. RI.4.5. Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. RI.4.6. Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided. RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.4.1.a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose.	texts to examine a topic and convey ideas and information clearly. W.5.2. a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.5.2. b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.5.2. c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). W.5.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2. e Provide a concluding statement or section related to the information or explanation presented. W.5.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.5.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.5.3b Use narrative techniques, such as dialogue, description, and pacing, to	strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. W.6.2b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. W.6.2c Use appropriate transitions to clarify the relationships among ideas and concepts. W.6.2d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.6.2e Establish and maintain a formal style. W.6.2f Provide a concluding statement or section that follows from the information or explanation presented. W.6.3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. W.6.3a Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. W.6.3b Use narrative techniques, such as dialogue, pacing, and description, to

	W.4.1.b.Provide reasons that are supported by facts and details. W.4.1.c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*). W.4.1.d. Provide a concluding statement or section related to the opinion presented. W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.4.2.a. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.4.2.b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.4.2.c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). W.4.2.d. Provide a concluding statement or section related to the information or explanation presented. W.4.4. Produce clear and coherent	develop experiences and events or show the responses of characters to situations. W.5.3c Use a variety of transitional words, phrases, and clauses to manage the sequence of events. W.5.3d Use concrete words and phrases and sensory details to convey experiences and events precisely. W.5.3e Provide a conclusion that follows from the narrated experiences or events. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. W.5.8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., “Compare	develop experiences, events, and/or characters. W.6.3c Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. W.6.3d Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. W.6.3e Provide a conclusion that follows from the narrated experiences or events. W.6.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. W.6.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.6.9. a Apply *grade 6 Reading*

	writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. W.4.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. W.4.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. W.4.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.4.9.a. Apply *grade 4 Reading*	and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for discussions and carry out assigned roles. SL.5.1. c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1. d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.	*standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). W.6.9. b Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. SL.6.1d Review the key ideas expressed and demonstrate understanding of

	standards to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions].").	SL.5.2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	multiple perspectives through reflection and paraphrasing.
	W.4.9.b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text").	SL.5.3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.	SL.6.3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.
	SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly.	SL.5.4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
	SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.	SL.5.5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	SL.6.5.. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
	SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles.	SL.5.6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.	SL.6.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.
	SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.	L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
	SL.4.1.d. Review the key ideas	L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.	L.6.1. a Ensure that pronouns are in the proper case (subjective, objective, possessive).
		L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have*	L.6.1. b Use intensive pronouns (e.g., *myself, ourselves*).
			L.6.1. c Recognize and correct inappropriate shifts in pronoun number

	expressed and explain their own ideas and understanding in light of the discussion. SL.4.3. Identify the reasons and evidence a speaker provides to support particular points. SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). L.4.1.b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. L.4.1.c. Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions. L.4.1.d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).	*walked*) verb tenses. L.5.1. c Use verb tense to convey various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.1. e Use correlative conjunctions (e.g., *either/or, neither/nor*). L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.2. c Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). L.5.2. d Use underlining, quotation marks, or italics to indicate titles of works. L.5.2. e Spell grade-appropriate words correctly, consulting references as needed. L.5.3. Use knowledge of language and	and person.* L.6.1. d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* L.6.1. e Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.6.2. a Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* L.6.2. b Spell correctly. L.6.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.6.3a Vary sentence patterns for meaning, reader/listener interest, and style.* L.6.3b Maintain consistency in style and tone.* L.6.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.

	L.4.1.e. Form and use prepositional phrases. L.4.1.g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* L.4.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.4.2.a. Use correct capitalization. L.4.2.b. Use commas and quotation marks to mark direct speech and quotations from a text. L.4.2.c. Use a comma before a coordinating conjunction in a compound sentence. L.4.2.d. Spell grade-appropriate words correctly, consulting references as needed. L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.4.3.a. Choose words and phrases to convey ideas precisely.* L.4.3.b. Choose punctuation for effect.*	its conventions when writing, speaking, reading, or listening. L.5.3. a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3. b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.5.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.5.5a Interpret figurative language, including similes and metaphors, in	L.6.4. a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4. b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. L.6.4. d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). L.6.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.6.5a Interpret figures of speech (e.g., personification) in context. L.6.5b Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words. L.6.5c Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical,*

	L.4.3.c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). L.4.4.c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.4.5.a. Explain the meaning of simple similes and metaphors (e.g., *as pretty*	context. L.5.5b Recognize and explain the meaning of common idioms, adages, and proverbs. L.5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*). RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4a Read grade-level text with purpose and understanding. RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression. RF.5.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	*unwasteful, thrifty*). L.6.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

	as a picture) in context. L.4.5.b. Recognize and explain the meaning of common idioms, adages, and proverbs. L.4.5.c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).		
	4th Grade – Study Two **Language Arts Unit Five** **6 Weeks in Length** RL.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RL.4.2. Determine a theme of a story, drama, or poem from details in the text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in	**5th Grade – Study Two** **Language Arts Unit Five** **6 Weeks in Length** RL.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RL.5.2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. RL.5.3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). RL.5.4. Determine the meaning of words and phrases as they are used in a text, including figurative language	**6th Grade – Study Two** **Language Arts Unit Five** **6 Weeks in Length** RL.6.1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. RL.6.2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. RL.6.3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. RL.6.4. Determine the meaning of words and phrases as they are used in a text, including figurative and

	mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. RL.4.9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.	such as metaphors and similes. RL.5.5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem. RLRL.5.7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). RI.5.8. Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). W.5.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.5.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.5.3b Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. W.5.3c Use a variety of transitional words, phrases, and clauses to manage the sequence of events. W.5.3d Use concrete words and	connotative meanings; analyze the impact of a specific word choice on meaning and tone. RL.6.6. Explain how an author develops the point of view of the narrator or speaker in a text. RL.6.9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. RI.6.8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not. W.6.3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. W.6.3. a Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. W.6.3. b Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. W.6.3. c Use a variety of transition words, phrases, and clauses to

	RI.4.8. Explain how an author uses reasons and evidence to support particular points in a text. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.4.1.a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. W.4.1.b.Provide reasons that are supported by facts and details. W.4.1.c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*). W.4.1.d. Provide a concluding statement or section related to the opinion presented. W.4.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.4.2.a. Introduce a topic clearly and group related information in paragraphs and sections; include	phrases and sensory details to convey experiences and events precisely. W.5.3e Provide a conclusion that follows from the narrated experiences or events. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which	convey sequence and signal shifts from one time frame or setting to another. W.6.3. d Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.W.6.3f Provide a conclusion that follows from the narrated experiences or events. W.6.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.6.5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.6.9. a Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g.,

	formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.4.2.b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.4.2.c. Link ideas within categories of information using words and phrases (e.g., *another, for example, also, because*). W.4.2.d. Provide a concluding statement or section related to the information or explanation presented. W.4.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.4.3.a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.4.3.b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. W.4.3.c. Use a variety of transitional words and phrases to manage the sequence of events.	reasons and evidence support which point[s]"). SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for discussions and carry out assigned roles. SL.5.1. c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1. d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. SL.5.2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. SL.5.3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence	stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and topics"). W.6.9. b Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1. b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1. c Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. SL.6.1. d Review the key ideas

	W.4.3.d. Use concrete words and phrases and sensory details to convey experiences and events precisely. W.4.3.e. Provide a conclusion that follows from the narrated experiences or events. W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. W.4.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. W.4.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. W.4.9. Draw evidence from literary or informational texts to support analysis,	SL.5.5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. SL.5.6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. L.5.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. L.5.1. c Use verb tense to convey various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.1. e Use correlative conjunctions (e.g., *either/or, neither/nor*). L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. SL.6.3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not. SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. SL.6.5.. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. SL.6.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.6.1a Ensure that pronouns are in the proper case (subjective, objective, possessive). L.6.1b Use intensive pronouns (e.g., *myself, ourselves*).

	reflection, and research. W.4.9.a. Apply *grade 4 Reading standards* to literature (e.g., "Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). W.4.9.b. Apply *grade 4 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text"). SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles. SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to	L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.2. c Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*). L.5.2. d Use underlining, quotation marks, or italics to indicate titles of works. L.5.2. e Spell grade-appropriate words correctly, consulting references as needed. L.5.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.5.3. a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3. b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	L.6.1c Recognize and correct inappropriate shifts in pronoun number and person.* L.6.1d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* L.6.1e Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.6.2a Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* L.6.2b Spell correctly. L.6.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.6.3. a Vary sentence patterns for meaning, reader/listener interest, and style.* L.6.3. b Maintain consistency in style and tone.* L.6.4. Determine or clarify the meaning of unknown and multiple-

	the remarks of others. SL.4.1.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. SL.4.2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. SL.4.3. Identify the reasons and evidence a speaker provides to support particular points. SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. L.4.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).	L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.5.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.5.5a Interpret figurative language, including similes and metaphors, in context. L.5.5b Recognize and explain the meaning of common idioms, adages, and proverbs. L.5.5c Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words. L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although,*	meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. L.6.4a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. L.6.4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). L.6.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.6.5. a Interpret figures of speech (e.g., personification) in context. L.6.5. b Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better

	L.4.1.b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. L.4.1.c. Use modal auxiliaries (e.g., *can*, *may*, *must*) to convey various conditions. L.4.1.d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). L.4.1.e. Form and use prepositional phrases. L.4.1.f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* L.4.1.g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* L.4.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.4.2.a. Use correct capitalization. L.4.2.b. Use commas and quotation marks to mark direct speech and quotations from a text. L.4.2.c. Use a comma before a	*nevertheless, similarly, moreover, in addition*). RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4a Read grade-level text with purpose and understanding. RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression. RF.5.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary	understand each of the words. L.6.5. c Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical, unwasteful, thrifty*). L.6.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

	coordinating conjunction in a compound sentence. L.4.2.d. Spell grade-appropriate words correctly, consulting references as needed. L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.4.3.a. Choose words and phrases to convey ideas precisely.* L.4.3.b. Choose punctuation for effect.* L.4.3.c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a		

	word (e.g., *telegraph, photograph, autograph*). L.4.4.c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.4.5.a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. L.4.5.b. Recognize and explain the meaning of common idioms, adages, and proverbs. L.4.5.c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).		
	4th Grade – Study Two **Language Arts Unit Six** **6 Weeks in Length** RL.4.2. Determine a theme of a story, drama, or poem from details in the	**5th Grade – Study Two** **Language Arts Unit Six** **6 Weeks in Length** RL.5.2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or	**6th Grade – Study Two** **Language Arts Unit Six** **6 Weeks in Length** RL.6.2. Determine a theme or central idea of a text and how it is conveyed through particular details; provide a

	text; summarize the text. RL.4.3. Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions). RL.4.4. Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean). RL.4.5. Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text RL.4.6. Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations. RL.4.9. Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures. RL.4.10. By the end of the year, read and comprehend literature, including	drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text. RL.5.3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact). RL.5.6. Describe how a narrator's or speaker's point of view influences how events are described. RL.5.7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem). RL.5.9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics. RL.5.10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently. RI.5.1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. RI.5.2. Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	summary of the text distinct from personal opinions or judgments. RL.6.3. Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves toward a resolution. RL.6.6. Explain how an author develops the point of view of the narrator or speaker in a text. RL.6.7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch. RL.6.9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. RL.6.10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range. RI.6.2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary

	stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *grade 4 topic or subject area*. RI.4.8. Explain how an author uses reasons and evidence to support particular points in a text. RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably. RI.4.10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range. W.4.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.4.1.a. Introduce a topic or text clearly, state an opinion, and create an	RI.5.6. Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. RI.5.7. Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. RI.5.10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently. W.5.1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. W.5.1a Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. W.5.1b Provide logically ordered reasons that are supported by facts and details. W.5.1c Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*). W.5.1d Provide a concluding statement or section related to the opinion presented.	of the text distinct from personal opinions or judgments. RI.6.3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes). RI.6.6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text. RI.6.7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue. RI.6.10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range. W.6.1. Write arguments to support claims with clear reasons and relevant evidence. W.6.1. a Introduce claim(s) and organize the reasons and evidence clearly. W.6.1. b Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text. W.6.1. c Use words, phrases, and

	organizational structure in which related ideas are grouped to support the writer's purpose. W.4.1.b. Provide reasons that are supported by facts and details. W.4.1.c. Link opinion and reasons using words and phrases (e.g., *for instance, in order to, in addition*). W.4.1.d. Provide a concluding statement or section related to the opinion presented. W.4.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.4.3.a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.4.3.b. Use dialogue and description to develop experiences and events or show the responses of characters to situations. W.4.3.c. Use a variety of transitional words and phrases to manage the sequence of events. W.4.3.d. Use concrete words and phrases and sensory details to convey	W.5.2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly. W.5.2. a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. W.5.2. b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. W.5.2. c Link ideas within and across categories of information using words, phrases, and clauses (e.g., *in contrast*, *especially*). W.5.2. d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.5.2. e Provide a concluding statement or section related to the information or explanation presented. W.5.3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. W.5.3a Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. W.5.3b Use narrative techniques, such	clauses to clarify the relationships among claim(s) and reasons. W.6.1. d Establish and maintain a formal style. W.6.1. e Provide a concluding statement or section that follows from the argument presented. W.6.2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. W.6.2a Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. W.6.2b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. W.6.2c Use appropriate transitions to clarify the relationships among ideas and concepts. W.6.2d Use precise language and domain-specific vocabulary to inform about or explain the topic. W.6.2de Establish and maintain a

	experiences and events precisely. W.4.3.e. Provide a conclusion that follows from the narrated experiences or events. W.4.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. W.4.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. W.4.7. Conduct short research projects that build knowledge through investigation of different aspects of a topic. W.4.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. W.4.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific	as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations. W.5.3c Use a variety of transitional words, phrases, and clauses to manage the sequence of events. W.5.3d Use concrete words and phrases and sensory details to convey experiences and events precisely. W.5.3e Provide a conclusion that follows from the narrated experiences or events. W.5.4. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.5.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. W.5.6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting. W.5.7. Conduct short research projects that use several sources to build knowledge through investigation of	formal style. W.6.2d f Provide a concluding statement or section that follows from the information or explanation presented. W.6.3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. W.6.3. a Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. W.6.3. b Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. W.6.3. c Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. W.6.3. d Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. W.6.3. e Provide a conclusion that follows from the narrated experiences or events. W.6.4. Produce clear and coherent

	tasks, purposes, and audiences. SL.4.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 4 topics and texts*, building on others' ideas and expressing their own clearly. SL.4.1.a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.4.1.b. Follow agreed-upon rules for discussions and carry out assigned roles. SL.4.1.c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others. SL.4.1.d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion. SL.4.2. Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. SL.4.3. Identify the reasons and	different aspects of a topic. W.5.8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources. W.5.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.5.9. a Apply *grade 5 Reading standards* to literature (e.g., "Compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). W.5.9. b Apply *grade 5 Reading standards* to informational texts (e.g., "Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). W. SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly. SL.5.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. SL.5.1. b Follow agreed-upon rules for	writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.) W.6.6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting. W.6.7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate. W.6.8. Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. W.6.9. Draw evidence from literary or informational texts to support analysis, reflection, and research. W.6.9a Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres [e.g., stories and poems; historical novels and fantasy stories] in terms of their approaches to similar themes and

	evidence a speaker provides to support particular points. SL.4.4. Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.4.5. Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes. SL.4.6. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. L.4.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. L.4.1.a. Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*). L.4.1.b. Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses. L.4.1.c. Use modal auxiliaries (e.g., *can, may, must*) to convey various	discussions and carry out assigned roles. SL.5.1. c Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. SL.5.1. d Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. SL.5.2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally. SL.5.3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence. SL.5.4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace. SL.5.5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes. SL.5.6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. L.5.1. Demonstrate command of the conventions of standard English	topics"). W.6.9b Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not"). W.6.10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. SL.6.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.6.1. a Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion. SL.6.1. b Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed. SL.6.1. c Pose and respond to specific questions with elaboration

	conditions. L.4.1.d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*). L.4.1.e. Form and use prepositional phrases. L.4.1.f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.* L.4.1.g. Correctly use frequently confused words (e.g., *to, too, two; there, their*).* L.4.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.4.2.a. Use correct capitalization. L.4.2.b. Use commas and quotation marks to mark direct speech and quotations from a text. L.4.2.c. Use a comma before a coordinating conjunction in a compound sentence. L.4.2.d. Spell grade-appropriate words correctly, consulting references as needed.	grammar and usage when writing or speaking. L.5.1. a Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. L.5.1. b Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses. L.5.1. c Use verb tense to convey various times, sequences, states, and conditions. L.5.1. d Recognize and correct inappropriate shifts in verb tense.* L.5.1. e Use correlative conjunctions (e.g., *either/or, neither/nor*). L.5.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.5.2. a Use punctuation to separate items in a series.* L.5.2. b Use a comma to separate an introductory element from the rest of the sentence. L.5.2. c Use a comma to set off the words *yes* and *no* (e.g., *Yes, thank you*), to set off a tag question from the rest of the sentence (e.g., *It's true, isn't it?*), and to indicate direct address (e.g., *Is that you, Steve?*).	and detail by making comments that contribute to the topic, text, or issue under discussion. SL.6.1. d Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing. SL.6.2. Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study. SL.6.4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation. SL.6.5.. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information. SL.6.6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. SL.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

	L.4.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.4.3.a. Choose words and phrases to convey ideas precisely.* L.4.3.b. Choose punctuation for effect.* L.4.3.c. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). L.4.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. L.4.4.a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. L.4.4.b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*). L.4.4.c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine	L.5.2. d Use underlining, quotation marks, or italics to indicate titles of works. L.5.2. e Spell grade-appropriate words correctly, consulting references as needed. L.5.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.5.3. a Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. L.5.3. b Compare and contrast the varieties of English (e.g., *dialects, registers*) used in stories, dramas, or poems. L.5.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies. L.5.4. a Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase. L.5.4. b Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis*). L.5.4. c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to	SL.6.1a Ensure that pronouns are in the proper case (subjective, objective, possessive). SL.6.1b Use intensive pronouns (e.g., *myself, ourselves*). SL.6.1c Recognize and correct inappropriate shifts in pronoun number and person.* SL.6.1d Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).* SL.6.1e Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve expression in conventional language.* L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. L.6.2. a Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.* L.6.2. b Spell correctly. L.6.3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. L.6.3a Vary sentence patterns for meaning, reader/listener interest,

	or clarify the precise meaning of key words and phrases. L.4.5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. L.4.5.a. Explain the meaning of simple similes and metaphors (e.g., *as pretty as a picture*) in context. L.4.5.b. Recognize and explain the meaning of common idioms, adages, and proverbs. L.4.5.c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). L.4.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and that are basic to a particular topic (e.g., *wildlife, conservation*, and *endangered* when discussing animal preservation).	find the pronunciation and determine or clarify the precise meaning of key words and phrases. L.5.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition*). RF.5.4. Read with sufficient accuracy and fluency to support comprehension. RF.5.4a Read grade-level text with purpose and understanding. RF.5.4b Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression. RF.5.4c Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	and style.* L.6.3b Maintain consistency in style and tone.* L.6.4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. L.6.4a Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. L.6.4b Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible*). L.6.4c Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. L.6.4d Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). L.6.6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary

			knowledge when considering a word or phrase important to comprehension or expression.

Mathematics Curriculum

Sussex Montessori School

The mathematics curriculum is built around several research based curriculum and standards documents including:
The National Common Core Standards
National Council of Teachers of Mathematics
Montessori Mathematics Curriculum

Thank you to the Elementary Workshop Montessori School, First State Montessori Academy and Wilmington Montessori School for providing wisdom and input to the development of this curriculum.

Table of Contents

Introduction to the Mathematics Curriculum Framework

In the Mathematics Curriculum, the teacher must be knowledgeable about the "Processes and Proficiencies" and have tools to assess when students demonstrate these proficiencies as they work within the various mathematical strands. Teachers also need a clear understanding of the knowledge goals for mathematical thinking within each of strands. The Montessori Mathematics Curriculum Framework provides teachers with the goals for mathematics at each multi-age stage of development (5-7, 7-9, and 9-12 year olds). Early in the school year, teachers use a variety of assessments to determine where children are on the learning continuum in each area. The Curriculum Framework provides the teacher with instructional strategies that are used in small group and individual lessons/units using hands-on Montessori materials, TERC mathematics, and other resources to meet the individual instructional needs of the child. These lessons provide opportunities for teachers to observe children and to evaluate their progress towards the goals for learning across each strand of the mathematics curriculum as well as their understanding and demonstration of the processes and proficiencies. The Framework provides various formative and summative assessment tools for teachers to confirm their observations, and to make adjustments to instruction as a result of those observations. These tools include daily observations, teacher designed assessments, and formal assessments such as the Curriculum Based Measurements, AIMS Math Assessments or DIBLES Mathematics. Finally, the Framework provides indicators of when a child is off-track with their mathematical thinking. The RTI model of assessment/instruction allows teachers to adjust instructional strategies and closely follow the progress of children who are off-track learners.

The development of the child in Mathematics is embedded within the context of a classroom that supports the best educational practices. It is generally accepted that the workforce of the future will require skills such as creative and innovative thinking, comfort with ideas and abstraction, along with a global worldview and vibrant imagination. Research (Adams, 2005) shows that children develop these skills in classrooms designed to promote intrinsic motivation; to provide choice, time for focus and deep study in areas of interest; to allow opportunities to experiment and discover, and to develop a focus on "What did you learn?" rather than "How well did you do?" The overall Montessori Program is designed to support the following:

- A focus on **big ideas and essential questions** with **extended work periods** to allow for **depth of understanding** and **habits of mind.**
- **Child-centered inclusive** learning environments that utilize **differentiated instruction** and **flexible grouping** to meet individual children's learning needs.
- **Classroom-based assessment** and observation that **informs instructional decision making** as the basis for **RTI.**
- **Hands-on interactive** curricular materials and classroom environment supporting children developing from **concrete to abstract thinking.**
- **Academic development** supported by an emphasis on the **social/emotional development** of the child within a **multi-age community of learners.**
- **Collaborative learning** and **community service** leading to mutual respect of others and the development of the child's **global perspective.**

References

Adams, K. (2005). "Sources of innovation and creativity". A paper commissioned by the National Center on Education and the Economy. Accessed 10/26/2011 at http://www.fpspi.org/Pdf/InnovCreaitivy.pdf.

Montessori, Maria. (1991). *The Advanced Montessori Method : Scientific pedagogy as applied to the education of children from seven to eleven years.* Oxford, England :Clio Press.

Montessori, Maria. (1973). *The Advanced Montessori Method : Volume 2.* New York : Schocken Books.

Mathematics Curriculum
K –1st (Ages 5-7)

This document is the core of the curriculum plan for the child as described above. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

Mathematics Processes and Proficiencies

1. Make sense of problems and persevere in solving them.

Mathematically proficient students:

Explain to themselves the meaning of a problem.

Look for entry points to its solution.

Analyze givens, constraints, relationships, and goals.

Make conjectures about the form and meaning of the solution.

Plan a solution pathway rather than simply jumping into a solution attempt.

Consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution.

Monitor and evaluate their progress and change course if necessary.

Explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data.

Search for regularity or trends.

Check their answers to problems using a different method.

Ask themselves, "Does this make sense?"

Understand the approaches of others to solving complex problems.

Identify correspondences between different approaches.

Use concrete objects or pictures to help conceptualize and solve a problem. (younger students)

Transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need, depending on the context of the problem. (older students)

2. Reason abstractly and quantitatively.

Mathematically proficient students:

Make sense of quantities and their relationships in problem situations.

Bring two complementary abilities to bear on problems involving quantitative relationships:

The ability to *decontextualize*, to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents

The ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved.

Create a coherent representation of the problem at hand, considering the units involved.

Attend to the meaning of quantities, not just how to compute them.

Know and flexibly use different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students:

Understand and use stated assumptions, definitions, and previously established results in constructing arguments.

Make conjectures and build a logical progression of statements to explore the truth of their conjectures.

Analyze situations by breaking them into cases.

Recognize and use counterexamples.

Justify their conclusions, communicate them to others, and respond to the arguments of others.

Make plausible arguments that take into account the context from which the data arose, reasoning inductively.

Compare the effectiveness of two plausible arguments.

Distinguish correct logic or reasoning from that which is flawed, and, f there is a flaw in an argument, explain what it is.

Listen to or read the arguments of others, decide whether they make sense.

Ask useful questions to clarify or improve arguments.

Construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. (younger students)

Determine domains to which an argument applies. (older students)

4. Model with mathematics.

Mathematically proficient students:

Apply the mathematics they know to solve problems arising in everyday life, society, and the workplace.

In early grades, this might be as simple as writing an addition equation to describe a situation.

In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community.

In high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another.

Apply what they know.

Make assumptions and approximations to simplify a complicated situation, realizing that these may need revision later.

Identify important quantities in a practical situation.

Map relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas.

Analyze relationships mathematically to draw conclusions.

Interpret their mathematical results in the context of the situation.

Reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Mathematics Processes and Proficiencies

5. Use Appropriate Tools Strategically.

Mathematically proficient students:

Consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software.

Develop familiarity with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator.

Detect possible errors by strategically using estimation and other mathematical knowledge.

Know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data.

Identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems.

Use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision.

Mathematically proficient students:

Communicate precisely to others.

Use clear definitions in discussion with others and in their own reasoning.

State the meaning of the symbols they choose, including using the equal sign consistently and appropriately.

Use care to correctly specify units of measure, and label axes to clarify the correspondence with quantities in a problem.

Calculate accurately and efficiently.

Express numerical answers with a degree of precision appropriate for the problem context.

Give carefully formulated explanations to each other. (elementary school)

Examine claims and make explicit use of definitions. (high school)

7. Look for and make use of structure.

Mathematically proficient students:

Look closely to discern a pattern or structure.

Young students might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have.

Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property.

Older students can look at the expression $2x + 9x + 14$ and see the 14 as 2×7 and the 9 as $2 + 7$.

Recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems.

Consider an overview and be able to shift perspective.

See complicated things as single objects or as being composed of several objects.

For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students:

Notice if calculations are repeated, and look both for general methods and for shortcuts.

Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal.

Middle school students might pay attention while calculating slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, and abstract the equation $(y - 2)/(x - 1) = 3$.

High school students might notice the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$, leading them to the general formula for the sum of a geometric series.

Apply what they know.

Maintain oversight of the problem solving process, while attending to the details.

Evaluate the reasonableness of their intermediate results.

Mathematics Continuum for K-1st (Ages 5-7)

Enduring Understandings	Essential Questions	Transfer Skills
Mathematics can be used to solve problems outside of the mathematics classroom. Mathematics is built on reason and always makes sense. Reasoning allows us to make conjectures and to prove conjectures. Classifying helps us build networks for mathematical ideas. Precise language helps us express mathematical ideas and receive them.	Is your plan working? Do you need to reconsider what you are doing? How are solving and proving different? How are showing and explaining different? How do you know when you have proven something? What does it mean to verify a conjecture? How do you make sense of different strategies? How do you determine the strengths and weaknesses of different strategies? How do you determine similarities and differences of strategies? Why do we classify? Why do we classify: numbers, geometric objects, functions?	Recognize a problem in their everyday life and seek a solution. Approach a situation with a plan to solve a problem. Use mathematics to solve problems in their everyday life. Adjust the plan as needed based on reasonableness. Offer mathematical proof that their solution was valid. Recognize patterns and classify information to make sense of their ideas. Communicate effectively, orally and in writing, using mathematical terms to explain their thinking. Use this knowledge of mathematics to: Represent numbers in a reasonable way for a given situation Use computation at their appropriate level Create a visual representation of a problem (graphs, charts, tables) Gather information and use it to make reasonable predictions of future events Explain their thinking and persuade others to their point of view Recognize and apply spatial relations to the mathematical world

Math Strand **Number Sense & Numeration**	**Common Core Standards Targeted Skills** **Earlier Development** ⟷ **Later Development**	
Understanding numbers, ways of representing numbers, relationships among numbers, and number systems	Connect representations of numbers less than 100(e.g. concrete materials, drawings or pictures, mathematical symbols). **(CC.K.CC.4a)** Count to 100 by ones and tens. **(CC.K.CC.1)** Build whole numbers less than 100 using groups of 1's and 10's. *Continued*	Be able to count to 120 starting at any number less than 120. **(CC.1.NBT.1)** Be able to read and write numerals and represent a number of objects with a written numeral up to 120. **(CC.1.NBT.1)** Count sets of objects and non-standard units of measure up to 100 by 1's, 2's, 5's and 10's. *Continued*

Math Strand Number Sense & Numeration	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understanding numbers, ways of representing numbers, relationships among numbers, and number systems	Understand quantity equivalence - the ability to "count on" or "pick-up the count." **(CC.K.CC.2)** Compare groups of objects and identify whether the number of objects is greater than, less than or equal to the objects in the second group. **(CC.K.CC.6)** Write numbers 0-20. Represent a set of objects with a written numeral. **(CC.K.CC.3)** Count to answer, "how many" with various configurations and as many as 20 objects in a line and up to 10 objects in a scattered configuration. **(CC.K.CC.5)** Compare two numbers between 1 and 10 presented as written numerals. **(CC.K.CC.7)** Understand the last number name tells the number of objects counted and that the number of objects is the same regardless of their arrangement. **(CC.K.CC.4b)** Understand that each successive number name refers to one larger. **(CC.K.CC.4c)** Show whole/part relationships of whole numbers less than 20 (e.g., 16 = 10+6, 16 = 20-4). **(CC.K.NBT.1)** Understand more/less and greater than/less than. **(CC.K.CC.7)**	Identify equal parts of a whole and equal parts of a set using halves. Understand that that the two digits of a two digit number represent ones and tens. **(CC.1.NBT.2)** Understand that 10 can be thought of as a bundle of ten ones. **(CC.1.NBT.2a)** Demonstrate an understanding of expanded notation using materials. **(CC.1.NBT.2)** Represent numbers on a number line. **(CC.2.MD.6)** Understand place value and numeral quantity association for 0-9999. **(CC.2.NBT.1 –** up to 1000**)** Demonstrate an understanding of order relations for whole numbers less than 100. **(CC.1.NBT.3)** Understand more/less and greater than/less than. **(CC.1.NBT.3)** Add within 100, including a two-digit number and a one-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **(CC.1.NBT.4)** Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **(CC.1.NBT.4)** Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. **(CC.1.NBT.5)** Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. **(CC.1.NBT.6)**

Instructional Strategies for Number Sense and Numeration

Individual and small group lessons using the following Montessori materials:
Teen Board
Ten Board: Quantity and Symbols
Introduction to the Decimal System: Quantity
Introduction to the Decimal System: Symbols
The Decimal System: Association of Quantity and Symbol
Formation of Numeral Cards
Montessori memorization activities
100 Board

Bank Game
Short and Long Chains
Variety of Number Lines
TERC Units K:
Mathematical Thinking in Kindergarten
Pattern trains & hopscotch path
Collecting, counting, measuring
Counting ourselves and others
Making shapes and building blocks
How many in all
TERC Units Grade 1

Mathematical Thinking in grade 1
Building number sense
Survey questions and secret rules
Quilt squares and block towns
Number games and story problems
Bigger, taller, heavier, smaller

Math logs / journals

Math Strand **Operations/Algebra**	**Common Core Standards Targeted Skills** **Earlier Development** ⟷ **Later Development**	
Understanding the meaning of operations and how they relate to one another. *Computing fluently and making reasonable estimates.* *Across all ages, children as developmentally appropriate:* *Representing graphically a problem and solution.* *Selecting appropriate methods of calculation from among mental math, paper and pencil, calculators, and computers*	Represent addition and subtraction using things such as objects, drawings, sounds, acting out, verbal explanations or expressions. **(CC.K.OA.1)** Develop, use, and explain strategies to add and subtract single-digit numbers. **(CC.K.OA.1), (CC.K.OA.2)** Use manipulatives or drawings to represent addition and subtraction fact families. **(CC.K.OA.2)** Decompose numbers less than or equal to 10 into pairs in more than one way using objects or drawings. **(CC.K.OA.3)** For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. **(CC.K.OA.4)** Fluently add and subtract within 5. **(CC.K.OA.5)** Make reasonable estimates. Recognize symbols +,-, =, x. Represent, compute, and narrate number sentences in horizontal and vertical presentations.	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings and equations with a symbol for the unknown number to represent the problem. **(CC.1.OA.1)** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20 by using drawings or objects and equations with a symbol for the unknown number to represent the problem. **(CC.1.OA.2)** Apply properties of operations as strategies to add and subtract. Students need not use formal terms for these properties. **(CC.1.OA.3)** Understand subtraction as an unknown-addend problem. **(CC.1.OA.4)** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). **(CC.1.OA.5)** Demonstrate an understanding of the meanings of operations and how they relate to one another. **(CC.2.NBT.5)** Know and use addition and subtraction fact families to 20 (e.g., 10+10=20, 20-10=10). **(CC.1.0A.6)** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. **(CC.1.OA.7)** Determine the unknown number in an addition or subtraction equation relating three whole numbers. **(CC.1.OA.8)**

Instructional Strategies for Operations/Algebra

Individual and small group lessons using the following Montessori materials:
Introduction to Memorization Work
Introduction to the Addition Strip Board
Addition Strip Board
Addition Charts
Oral Games for the Memorization of Addition
Addition Snake Game
Bead Bars for the Memorization of Addition
Bead Bars: Commutative Law
Bead Bars: Multiple Addends
Bead Bars: Addends Larger than Ten
Bead Bars: Associative Law
Basic Formats for Addition
Addition Story Problems
Subtraction Strip Board
Oral Games for the Memorization of facts
Golden Beads
Stamp Games
(Decomposing Numbers), K, 1, 2 and 3
Ten Frames, Ten and Some More, Grades: 1, 2 and 3
Grouping Tens, Grades: 1, 2 and 3
Two-Digit Addition and Subtraction, Grades: 2 and 3
Subtraction and addition Snake Game Subtraction and addition Story Problems
Variety of Number Lines

TERC Units Kindergarten:
Mathematical thinking in kindergarten
Pattern trains and hopscotch paths
Collecting counting measuring
Counting ourselves and others
Making shapes and building blocks
How many in all?

TERC Units Grade 1
Mathematical thinking at grade 1
Building number sense
Survey questions and secret rules
Quilt squares and block towns
Number games and story problems
Bigger taller heavier smaller

Math logs / journals

Math Strand Patterns	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding patterns, relationships and functions. *Representing and analyzing mathematical situations and structures using algebraic symbols.* *Using mathematical models to represent and understand quantitative relationships*	Recognize patterns, counting by 2's, 5's, 10's, 20's, etc. **(CC.K.CC.1), (CC.2.NBT.2)** Sort and classify objects by one or more attributes. **(CC.K.MD.3)** Place and read whole numbers on a number line. **(CC.2.MD.6)** Demonstrate the use of patterns as they communicate mathematically and solve problems. Recognize, create, and extend visual, symbolic, verbal, and physical patterns (e.g. abab, abbabb). Represent mathematical concepts with symbols for addition, subtraction, multiplication and equals.	Represent mathematical concepts with symbols for less than, greater than, and not equal to. **(CC.1.NBT.3)** Recognize, analyze, create, and extend numeric and non-numeric patterns. Sort and classify objects by multiple attributes. **(CC.K.MD.3)** Sort numbers into different classes (e.g., evens, odds). **(CC.2.OA.3)** Find the distance between two points on a number line. **(CC.2.MD.6)** Begin to solve open sentences, such as □+ 3=11, using informal methods and explain the solutions. **(CC.1.OA.8)**

Instructional Strategies for Patterns

Individual and small group lessons using the following Montessori materials:
Red and Blue rods
Table top red and blue rods
Colored bead bars
Strip Boards
Bank game
Pattern cards
Teens and tens boards
Hundred board
Short and long bead chains

TERC Units Kindergarten:
Pattern trains and hopscotch paths

TERC Units Grade 1
Mathematical thinking at grade 1

Building number sense
Survey questions and secret rules
Quilt squares and block towns
Number games and story problems

Calendar
Math logs / journals

Math Strand Measurement & Data	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understand measurable attributes of objects and the units, systems, and processes of measurement. *Applying appropriate techniques, tools, and formulas to determine measurement*s	Describe measureable attributes of objects (length, weight, volume, mass/weight, hot/cold). Describe several measureable attributes of an object. **(CC.K.MD.1)** Compare two objects with a measureable attribute in common, to see which object has "more of"/"less of' the attribute, and describe the difference. **(CC.K.MD.2)** Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. **(CC.K.MD.3)** Begin to understand the measurement of time (today, yesterday, tomorrow, days of week, and months of year). Recognize and name a penny, nickel, dime and quarter from a set of coins.	Order three objects by length; compare the lengths of two objects indirectly by using a third object. **(CC.1.MD.1)** Measure length using non-standard units. **(CC.1.MD.2)** Tell and write time to the hour and half-hour using digital and analog clocks. **(CC.1.MD.3)** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. **(CC.1.MD.4)**

Instructional Strategies for Measurement and Data

Individual and small group lessons using the following Montessori materials:
One-, two-, and three-minute hourglass egg timers (make corresponding labels)
A large Judy Clock
Small Judy Clocks
A set of rubber stamps of clock faces without hands
A variety of timelines (you can make these-birthday; day/night; lifespan; year/seasons)
A variety of calendars (this should ideally include a rolling calendar)
Money manipulatives
Thermometers
Variety of measuring cups/containers
Variety of rulers – both inch, foot and metric

TERC Units Kindergarten:
Mathematical thinking in kindergarten
Collecting counting measuring
How many in all?

TERC Units Grade 1
Building number sense
Quilt squares and block towns
Bigger taller heavier smaller

Math logs / journals

Math Strand **Geometry**	**Common Core Standards Targeted Skills** **Earlier Development** ⟷ **Later Development**	
Observing and analyzing the shapes and properties of two and three-dimensional geometric shapes. *Developing mathematical arguments about geometric relationships.* *Specifying locations and describe spatial relationships using coordinate geometry and other representational systems.* *Applying transformations and symmetry* *Using visualizations, spatial reasoning and geometric modeling to solve problems.*	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of, behind,* and *next to.* **(CC.K.G.1)** Correctly name shapes regardless of their orientations or overall size. **(CC.K.G.2)** Name and sort plane and solid figures by shape: triangle, square, rectangle, circle, sides (polygons), and angles (obtuse and acute). **(CC.K.G.2)** Identify shapes as two- dimensional (lying in a plane, "flat") or three-dimensional ("solid"). **(CC.K.G.3)** Analyze and compare two and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts. **(CC.K.G.4)** Model shapes in the world by building shapes from components and drawing shapes. **(CC.K.G.5)** Compose simple shapes to form larger shapes. **(CC.K.G.6)**	Describe the relative position of objects using the terms *near, far, left, right.* **(CC.K.G.1)** Distinguish between defining attributes versus non-defining attributes. **(CC.1.G.1)** Build and draw shapes to possess defining attributes. **(CC.1.G.1)** Compose two-dimensional shapes or three-dimensional shapes to create a composite shape, and form new shapes from the composite shape. (**CC.1.G.2)** Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of.* **(CC.1.G.3)** Understand that decomposing into more equal shares creates smaller shares. **(CC.1.G.3)** Name and sort angles.

Instructional Strategies for Geometry -Individual instruction and small group lessons on:

Individual and small group lessons using the following Montessori materials:
Geometry Units
Geometry Sticks
Squares
Triangles
Other Geometric Figures
Inscribed and Circumscribed Figures
Large Geometric Solids
Geometric Cabinet

TERC Units Kindergarten:
Mathematical thinking in kindergarten
Pattern trains and hopscotch paths
Collecting counting measuring
Making shapes and building blocks
How many in all?

TERC Units Grade 1
Mathematical thinking at grade 1
Building number sense
Survey questions and secret rules
Quilt squares and block towns
Number games and story problems
Bigger taller heavier smaller

Math logs / journals

Math Strand Probability	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understanding and apply basic concepts of probability. *Developing and evaluating inferences and predictions that are based on data.* *Formulating questions that can be addressed with data and collect, organize, and display relevant data to answer them.* *Selecting and using appropriate statistical methods to analyze data*	Collect data by observing, measuring, surveying, and counting. **(CC.K.MD.3), (CC.1.MD.4)** Interpret data by making comparisons (e.g., more, less, the same). **(CC.K.MD.2), (CC.1.MD.4)**	Demonstrate a variety of ways to represent and organize data using physical objects. **(CC.1.MD.4)** Interpret data by making comparisons (e.g., how many more). **(CC.1.MD.4)**

Instructional Strategies for Probability

Individual and small group lessons using the following Montessori materials:
Data collection strategies
Comparison charts and graphs
Math logs / journals

TERC Units Kindergarten:
Mathematical thinking in kindergarten
Collecting counting measuring
Counting ourselves and others

TERC Units Grade 1
Mathematical thinking at grade 1
Survey questions and secret rules
Quilt squares and block towns
Bigger taller heavier smaller

Off Track Indicators For All Strands

Child has difficulty with spatial organization (placing numbers on the page) or organizing/using the materials to complete a problem.
Student is not comfortable using mathematical language or has difficulty with math vocabulary words.
Student has difficulty seeing how concepts (e.g., addition and subtraction, or ratio and proportion) are related to each other.
Student has problems transferring concepts learned in the math classroom to real life situations.
Student has an inability to determine reasonableness of a solution or problem.
Student is confused by the language of word problems (e.g., when irrelevant information is included or when information is given out of sequence).
Student does not know how to get started on word problems or how to break down problems into simpler sub problems.
Student has difficulty reasoning through a problem or difficulty using strategies effectively during problem solving.
After being taught a concept using multiple materials, child still cannot grasp the concept or process.
Student does not have a strong sense of number/place value/quantity.
Student does not understand that there are basic patterns in number.

Assessments -While specific assessments are not listed under each strand, these assessments will be used to assess each student's growth in terms of the various processes and proficiencies.

Delaware Comprehensive Assessment System (DCAS)
TERC Assessments – Investigations in Number, Data and Space, Assessment Sourcebook, K-1
Assessing Math Concepts series by Kathy Richardson, DIDAX Educational Resources (AMC)
- Counting Objects, Grades: K and 1
- Changing Numbers (Beginning Number Relationships), Grades: K, 1 and 2
- More/Less Trains (Comparing Numbers), Grades: 1 and 2
- Number Arrangements (Identifying and Combining Parts), Grades: K, 1 and 2
- Combination Trains (Number Combinations), Grades: 1 and 2
- Hiding Assessments (Decomposing Numbers), Grades K, 1, 2 and 3
- Ten Frames, Ten and Some More, Grades: 1, 2 and 3
- Grouping Tens, Grades: 1, 2 and 3

Mathematics Assessment Sampler Pre K-2 (MAS)

Formal Assessments:
AIMS Web Test of Early Numeracy for K-1
AIMS Web Test of Computation 1st only
TERC Assessments

Informal Assessments:
Work Samples correlated with standards
Work Samples related to goals for math in portfolios
Observation leading to Anecdotal Records
Curriculum Based Measurement

	DCAS	Anecdotal Records	Portfolios	Journals	TERC	AIMS	MAS	AMC
Proficiencies		X	X	X	X	X	X	X
Number Sense / Numeration	X	X	X	X	X	X		X
Operations/Algebra	X	X	X	X	X		X	X
Patterns	X	X	X	X	X		X	X
Geometry	X	X	X	X	X		X	
Probability	X	X	X	X	X		X	

Resources

Montessori Math Albums: Math, Geometry, Fractions
TERC: Implementing the Investigations in Number, Data and Space Curriculum (Dale Seymour Publications) Grades K-1
Good Questions for Math Teaching, K-6, Peter Sullivan and Pat Lilburn
Family Math: Jean Kerr Stenmark, Virginia Thompson, and Ruth Cossey
Build It! Festival, Mathematics Activities for Grades K-6, Teacher's GEMS Guide
Understanding and Solving Word Problems, Step by Step Math, Curriculum Associates Inc.
Activities to Undo Math Misconceptions, Honi Bamberger and Karren Schultz-Ferrell
It's Elementary!,Grades 1, MJ Owen
About Teaching Mathematics, A K-8 Resource, Marilyn Burns
Two Plus Two is not Five, Susan Greenwald
Read It! Draw It! Solve It! Grade 1 – 3, Elizabeth Miller
50 Problem Solving Lessons, Marilyn Burns
Figure It Out – Thinking Like a Math Problem Solver, Grade 1 – 3, Sandra Cohen

2nd-3rd (Ages 7-9) Mathematics Curriculum

This document is the core of the curriculum plan for the child as described above. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

Mathematics Continuum for 2nd-3rd (Ages 7-9)

Enduring Understandings	Essential Questions	Transfer Knowledge
Mathematics can be used to solve problems outside of the mathematics classroom. Mathematics is built on reason and always makes sense. Reasoning allows us to make conjectures and to prove conjectures. Classifying helps us build networks for mathematical ideas. Precise language helps us express mathematical ideas and receive them.	Is your plan working? Do you need to reconsider what you are doing? How are solving and proving different? How are showing and explaining different? How do you know when you have proven something? What does it mean to verify a conjecture? How do you make sense of different strategies? How do you determine the strengths and weaknesses of different strategies? How do you determine similarities and differences of strategies? Why do we classify? Why do we classify: numbers, geometric objects, functions?	Recognize a problem in their everyday life and seek a solution. Approach a situation with a plan to solve a problem. Use mathematics to solve problems in their everyday life. Adjust the plan as needed based on reasonableness. Offer mathematical proof that their solution was valid. Recognize patterns and classify information to make sense of their ideas. Communicate effectively, orally and in writing, using mathematical terms to explain their thinking. Use this knowledge of mathematics to: Represent numbers in a reasonable way for a given situation Use computation at their appropriate level Create a visual representation of a problem (graphs, charts, tables) Gather information and use it to make reasonable predictions of future events Explain their thinking and persuade others to their point of view Recognize and apply spatial relations to the mathematical world

Math Strand **Number Sense & Numeration**	**Common Core Standards Targeted Knowledge and Skills** **Earlier Development** ⟷ **Later Development**	
Understanding numbers, ways of representing numbers, relationships among numbers, and number systems	Connect representations of numbers less than 1,000 (e.g., concrete materials, drawings or pictures, mathematical symbols). **(CC.2.NBT.1)** Show whole/part relationships of whole numbers less than 100. (e.g., 77=80-3; 77=75+2). **(CC.2.NBT.1)** Build whole numbers less than 1000 using groups of 1's, 10's and 100's. **(CC.2.NBT.1)** *Continued*	Build whole numbers less than 10,000 using groups of 1's, 10's, 100's, and 1000's. Use place value understanding to round whole numbers to the nearest 10 or 100. **(CC.3.NBT.1)** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction *Continued*

Math Strand Number Sense & Numeration	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding numbers, ways of representing numbers, relationships among numbers, and number systems	Demonstrate an understanding of place value for whole numbers less than 1000. **(CC.2.NBT.1)** Understand the function of zero as a placeholder. **(CC.2.NBT.1b)** Count on and count back by 1's, 2's, 5's, 10's, and 100's between any two numbers less than 1,000. **(CC.2.NBT.2)** Demonstrate an understanding of expanded notation to thousands, e.g. 1853 = 1 thousand + 8 hundreds + 5 tens + 3 units. **(CC.2.NBT.3)** Represent mathematical concepts with symbols for less than, greater than, and not equal to. **(CC.2.NBT.4)** Represent through the use of materials the Commutative, Associative and Distributive properties. **(CC.2.NBT.9)**	Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a/b* as the quantity formed by *a* parts of size 1/*b*. **(CC.3.NF.1)** Understand a fraction as a number on the number line; represent fractions on a number line diagram. **(CC.3.NF.2)** Multiply one-digit whole numbers by multiples of 10 in the range of 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on the place value and properties of operations. **(CC.3.NBT.3)** Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. **(CC.3.NF.3)** Understand that two fractions are equivalent (equal) if they are the same size, or same point on a number line. **(CC.3.NF.3a)** Recognize and generate simple equivalent fractions. Explain why the fractions are equivalent. **(CC.3.NF.3b)** Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. **(CC.3.NF.3c)** Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions. **(CC.3.NF.3d)**

Instructional Strategies / Materials Number Sense & Numeration

Individual and Small group lessons using the following Montessori Math Materials:
Golden Beads
Stamp Game- Formation of Quantity, Addition, Subtraction
Bead Frame– Quantity, Addition, Subtraction, Multiplication
Large Bead Frame
Long Bead Chain
Powers of Numbers
Relationship of Multiplication and Division
The Bank Game
The Checkerboard
Math Journals

TERC Units– Grade 2
Mathematical Thinking at Grade 2
Coins, Coupons and Combinations
Shapes, Halves, and Symmetry
Putting Together and Taking Apart
How Long? How Far?
How Many Pockets? How Many Teeth?

TERC Units– Grade 3
Mathematical Thinking at Grade 3
Things that Come in Groups
Landmarks in the Hundreds
Up and Down the Number Line
Combining and Comparing
Exploring Solids and Boxes

Math Strand Operations/Algebra	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding the meaning of operations and how they are related to one another. *Computing fluently and making reasonable estimates.* *Across all ages children as developmentally appropriate:* *Representing graphically a problem and solution.* *Selecting appropriate methods of calculation from among mental math, paper and pencil, calculators, and computers*	Use addition and subtraction with whole numbers with understanding. **(CC.2.OA.2)** Understand and use subtraction and addition as inverse operations. **(CC.2.NBT.5)** Connect repeated addition with multiplication **(CC.2.OA.4)** Count on, count back and count by multiples. **(CC.2.NBT.2), (CC.2.NBT.8)** Recognize and use symbols +, -, ×, ÷. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. **(CC.2.NBT.4)** Make estimates before counting and computing. Know and use addition and subtraction fact families to 20 (e.g., 10+10=20, 20-10=10). **(CC.2.OA.2)** Perform one-digit multiplication with materials. Develop, use, and explain strategies to add and subtract two- or three-digit whole numbers. **(CC.2.NBT.5), (CC.2.NBT.6), (CC.2.NBT.7), (CC.2.NBT.8)** Develop, use and explain strategies to add and subtract single-digit and multi-digit whole numbers. **(CC.K.OA.2), (CC.1.OA.6), (CC.2.NBT.5)** Develop, use and explain strategies to: add and subtract single-digit and multi-digit whole numbers abstractly. Sort numbers into different classes (e.g., evens, odds). **(CC.2.OA.3)** Begin to solve open sentences, such as ☐+ 3=11, using informal methods and explain the solutions. **(CC.2.OA.1)**	Use addition and subtraction with whole numbers with understanding. **(CC.3.NBT.2)** Apply appropriately the operations of multiplication and division of whole numbers. **(CC.3.OA.3), (CC.3.OA.7), (CC.3.NBT.3)** Connect repeated addition with multiplication and repeated subtraction with division. Understand and use division and multiplication as inverse operations. **(CC.3.OA.5), (CC.3.OA.6)** Demonstrate commutative, associative and distributive properties. **(CC.3.OA.5)** Make estimates before counting and computing. Perform one-digit division with materials. Multiply whole numbers with at least one single-digit factor. **(CC.3.OA.1), (CC.3.OA.7)** Multiply whole numbers with at least one single-digit factor abstractly. **(CC.3.OA.5)** Divide whole numbers using single-digit divisors abstractly. Perform one digit multiplication and division, abstractly. Use concrete materials to perform addition and subtraction of fractions with common denominators. **(CC.4.NF.3d)** Solve 2-step word problems using addition, subtraction, multiplication, or division strategies. **(CC.3.OA.8)** Begin to explain how to solve an equation. Find numbers that make inequalities true, such as, □ < 8 or 2 + □ < 10. Interpret whole-number quotients of whole numbers. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56÷8.* **(CC.3.OA.2)** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. **(CC.3.OA.4)** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. *For example, explain why 4 times a number is always even.* **(CC.3.OA.9)**

Instructional Strategies / Materials for Operations/Algebra

Individual and Small Group Lessons using the following Montessori Math Materials:
Pythagoras Board
Short and Long Chains
Addition, Subtraction Boards
Golden Beads-Addition, Subtraction, Multiplication, Division
Stamp Game–Quantity, Addition, Subtraction, Multiplication, Division
Bead Frame - Addition, Subtraction, Multiplication
Large Bead Frame-Addition, Subtraction, Multiplication
Powers of Numbers
Relationship of Multiplication and Division
The Bank Game
The Checkerboard
Construction of the Decanomial
Introduction to the Unit Division Board
Unit Division Board
Division Bead Board
Division Charts
Division Story Problems
Math Journals
TERC Units– Grade 2:
Mathematical Thinking at Grade 2
Coins, Coupons and Combinations
Putting Together and Taking Apart
How Long? How Far?
How Many Pockets? How Many Teeth?
TERC Units– Grade 3
Mathematical Thinking at Grade 3
Things that Come in Groups
Landmarks in the Hundreds
Up and Down the Number Line
Combining and Comparing
Turtle Paths

Math Strand—Patterns	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding patterns, relationships and functions. *Representing and analyzing mathematical situations and structures using algebraic symbols.* *Using mathematical models to represent and understand quantitative relationships*	Recognize, analyze, create, and extend numeric and non-numeric patterns.	Identify and describe a wide variety of numeric and geometric patterns. Describe patterns and relationships using tables, rules and graphs.

Instructional Strategies / Materials for Patterns Individual instruction and small group lessons on:

Individual and Small Group Lessons Using Montessori Math Materials:
Bank game
Pattern cards
Hundred board
Short and long bead chains
Calendar
Math Journals

TERC Units– Grade 2:
Mathematical Thinking at Grade 2
Coins, Coupons and Combinations
Shapes, Halves and Symmetry
Putting Together and Taking Apart
How Long? How Far?
Timelines and Rhythm Patterns

TERC Units– Grade 3
Mathematical Thinking at Grade 3
Things that Come in Groups
Flips, Turns, and Area
From Paces to Feet
Landmarks in the Hundreds
Up and Down the Number Line
Combining and Comparing
Fair Shares
Exploring Solids and Boxes

Math Strand Measurement & Data	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understand measurable attributes of objects and the units, systems, and processes of measurement. *Applying appropriate techniques, tools, and formulas to determine measurements*	Find the distance between two points on a number line. **(CC.2.MD.5), (CC.2.MD.6)** Introduction to decimals as applied to money. **(CC.2.MD.8)** Read decimal notation when representing money. **(CC.2.MD.8)** Identify the value of a penny, nickel, dime, quarter, and a dollar. **(CC.2.MD.8)** Identify the value of a group of pennies, a group of nickels, a group of dimes or a group of quarters. **(CC.2.MD.8)** Make estimates before measuring. **(CC.2.MD.3)** Estimate, measure, and compare length, height, width, and distance around using non-standard and standard units of measure. **(CC.1.MD.2), (CC.2.MD.1), (CC.2.MD.3)** Measure and describe time (e.g., yesterday/today/tomorrow, before/after). Use the calendar to measure intervals of time (e.g., days, weeks, months). *Continued* Tell time to the nearest half hour and quarter hour, quarter past, quarter of.	Estimate, measure and compare areas using non-standard units of measure. **(CC.3.MD.6)** Estimate, measure and compare volume/capacity using non-standard units of measure. **(CC.5.MD.4)** Select the most appropriate standard unit of measure and use it to estimate, measure, and compare length, height, width, and distance around. Estimate and measure the perimeter of rectangles using non-standard units and non-standard units of measure. Measure time using standard units (e.g., minutes, hours, days, weeks, years). Estimate, measure, and compare mass/weight using non-standard units of measure. Estimate, measure, and compare mass/weight using standard units of measure. **(CC.3.MD.2)** Determine the change due from a purchase. Round money as an estimation strategy. Estimate and measure the perimeter of rectangles using non-standard units and non-standard units of measure. *Continued* Measure areas by counting unit squares. **(CC.3.MD.6)** Estimate, measure and compare volume/capacity using standard units of measure.

Math Strand Measurement & Data	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding measurable attributes of objects and the units, systems, and processes of measurement. *Applying appropriate techniques, tools, and formulas to determine measurements*	**(CC.1.MD.3** – *to the nearest half hour***)** Tell time to the nearest five minutes. **(CC.2.MD.7)** Read and record temperature to the nearest 10 degrees in F and C. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. **(CC.2.MD.2)** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. **(CC.2.MD.4)**	**(CC.3.MD.2)**Tell time to the nearest minute. **(CC.3.MD.1)** Read and record temperature to the nearest degree in F and C. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram. **(CC.3.MD.1)** Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings to represent the problem (excluding notions of "times as much"). **(CC.3.MD.2)** Recognize area as an attribute of plane figures and understand concepts of area measurement. **(CC.3.MD.5)** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. (**CC.3.MD.7a)** Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas on mathematical reasoning. **(CC.3.MD.7b)** Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning. **(CC.3.MD.7c)** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems. **(CC.3.MD.7d)** Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters. **(CC.3.MD.8)** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Instructional Strategies / Materials for Measurement and Data

Individual and Small Group Lessons Using Montessori Math Materials:
One-, two-, and three-minute hourglass egg timers (make corresponding labels)
Large Judy Clock
Small Judy Clocks
A set of rubber stamps of clock faces without hands
A variety of timelines (you can make these-birthday; day/night; lifespan; year/seasons)
A variety of calendars
Money manipulatives
Thermometers
Variety of measuring cups/containers
Variety of rulers – both inch, foot and metric

Math Strand Geometry	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Observing and analyzing the shapes and properties of two and three-dimensional geometric shapes. *Developing mathematical arguments about geometric relationships.* *Specifying locations and describing spatial relationships using coordinate geometry and other representational systems.* *Applying transformations and symmetry* *Using visualizations, spatial reasoning and geometric modeling to solve problems.*	Sort and classify objects by multiple attributes. **(CC.2.G.1)** Name and sort plane and solid figures by size and shape. **(CC.2.G.1)** Identify the new shape formed by combining two shapes. **(CC.1.G.2)** Match figures by size and shape. **(CC.2.G.1)** Name and sort polygons by sides and vertices. **(CC.2.G.1)** Name and sort angles. **(CC.4.G.1 – *in 2D figures*)** Decompose plane solid figures to the properties of the original composite shapes. Compare and classify plane and solid figures using models. **(CC.2.G.1)** Identify symmetrical shapes in the real world. **(CC.4.G.3)** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths.* **(CC.3.G.3)** Recognize that equal shares of identical wholes need not have the same shape. **(CC.3.G.3)**	Identify and describe plane and solid figures using models. Demonstrate a flip, slide, and turn of a given shape. Identify congruent shapes in the real world. Verify symmetrical shapes by drawing lines of symmetry. **(CC.4.G.3)** Define polygons using their attributes (e.g., number of sides, number of vertices, lines of symmetry). **(CC.2.G.1)** Measure angles using the Montessori protractor. **(CC.4.MD.6)** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories. **(CC.3.G.1)** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. **(CC.3.G.2)**

Instructional Strategies / Materials for Geometry

Individual and Small Group Lessons Using Montessori Math Materials:
Box of Sticks, Squares, Triangles, Other Geometric Figures
Inscribed and Circumscribed Figures
Large Geometric Solids
Geometric Cabinet
Centesimal Circle and Protractor
TERC Units– Grade 2:
Mathematical Thinking at Grade 2
Shapes, Halves and Symmetry
How Long? How Far?
Timelines and Rhythm Patterns
TERC Units– Grade 3
Mathematical Thinking at Grade 3
Things that Come in Groups
Flips, Turns, and Area
From Paces to Feet
Landmarks in the Hundreds
Turtle Paths
Fair Shares
Exploring Solids and Boxes

Math Strand Probability	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding and apply basic concepts of probability. *Developing and evaluating inferences and predictions that are based on data.* *Formulating questions that can be addressed with data and collect, organize, and display relevant data to answer them.* *Selecting and using appropriate statistical methods to analyze data*	Demonstrate a variety of techniques to represent and organize categorical data (e.g., physical objects, pictographs and graphs) **(CC.2.MD.10)** Interpret data by making comparisons (e.g., how many more). **(CC.3.MD.3)** Predict the chance of an event happening (e.g., never, sometimes, always). Describe the likelihood of an outcome (e.g., likely, unlikely). Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. **(CC.2.MD.10)** Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. **(CC.2.MD.10)** Organize measurement data by creating a line plot, where the horizontal scale is marked off in whole-number units. **(CC.2.MD.9)**	Collect data by observing, measuring, surveying, counting. **(CC.2.MD.9), (CC.MD.4)** Demonstrate various methods to interpret data (e.g., looking for patterns and relationships, drawing conclusions, answering the stated question or related questions). Explore concept of experimental probability using manipulatives Draw a scaled picture graph and scaled bar graph to represent a data set with several categories. **(CC.3.MD.3)** Solve one- and two-step "how many more" and "how many less" problems using information present in scaled bar graphs. **(CC.3.MD.3)** Organize measurement data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters. **(CC.3.MD.4)** Demonstrate a variety of techniques to represent and organize categorical and numerical data (e.g., physical objects, pictographs and graphs) **(CC.K.MD.3), (CC.1.MD.4),(CC.2.MD.9), (CC.2.MD.10)**

Instructional Strategies / Materials for Probability

Individual and small group lessons using:

TERC Lessons:

- Mathematical Thinking at Grade 2
- Coins, Coupons and Combinations
- Does It Walk, Crawl or Swim?
- How Many Pockets? How Many Teeth?
- Timelines and Rhythm Patterns

TERC Units– Grade 3

- From Paces to Feet
- Up and Down the Number Line
- Combining and Comparing

Off Track Indicators

Child has difficulty with spatial organization (placing numbers on the page) or organizing/using the materials to complete a problem.
Student is not comfortable using mathematical language or has difficulty with math vocabulary words.
Student has difficulty seeing how concepts (e.g., addition and subtraction, or ratio and proportion) are related to each other.
Student has problems transferring concepts learned in the math classroom to real life situations.
Student has an inability to determine reasonableness of a solution or problem.
Student is confused by the language of word problems (e.g., when irrelevant information is included or when information is given out of sequence).
Student does not know how to get started on word problems or how to break down problems into simpler sub problems.
Student has difficulty reasoning through a problem or difficulty using strategies effectively during problem solving.

Assessments

Specific assessments are not listed under each strand, the following may be used to assess each student's growth

Formal Assessments

AIMS Web Test for Concepts and Applications for 2nd-3rd
AIMS Web Test of Computation 2nd-3rd
TERC Assessments Investigations in Number, Data, and Space Assessment Sourcebook Grade 2 & 3
ERB-CTP4 for Grade 3
Mathematics Assessment Sampler Pre K-2, Grades 3-5
Assessing Math Concepts Series by Kathy Richardson
- Changing Numbers
- More/Less Trains
- Number Arrangements
- Combination Trains
- Hiding Assessments
- Ten Frames
- Grouping Tens
- Two-digit Addition and Subtraction

Informal Assessments

Work Samples correlated with standards
Work Samples related to goals for math in portfolios
Observation leading to Anecdotal Records
Curriculum Based Measurement—Math Journals correlated with standards and goals for math

	DCAS	Anecdotal Records	Portfolios	Journals	TERC	AIMS	MAS	AMC
Proficiencies		X	X	X	X	X	X	X
Number Sense / Numeration	X	X	X	X	X	X		X
Operations/Algebra	X	X	X	X	X		X	X
Patterns	X	X	X	X	X		X	X
Geometry	X	X	X	X	X		X	
Probability	X	X	X	X	X		X	

Resources

Montessori Albums—Resources obtained through MACTE approved Montessori training courses: Math, Geometry, Fractions
TERC: Implementing the Investigations in Number, Data and Space Curriculum (Dale Seymour Publications) Grades 2-3
Good Questions for Math Teaching, K-6, Peter Sullivan and Pat Lilburn
Good Questions, Great Ways to Differentiate Mathematics Instruction, Marian Small
Writing in Math Class, A Resource for Grades 2-8, Marilyn Burns
Family Math: Jean Kerr Stenmark, Virginia Thompson, and Ruth Cossey
Build It! Festival, Mathematics Activities for Grades K-6, Teacher's GEMS Guide
A Collection of Math Lessons from Grades 3-6, Marilyn Burns
Hands-On Math Projects with Real-Life Applications Grades 3-5, Judith A. Muschla and Gary Robert Muschla
Understanding and Solving Word Problems, Step by Step Math, Curriculum Associates Inc.
It's Elementary!,Grades 2 and 3, MJ Owen
About Teaching Mathematics, A K-8 Resource, Marilyn Burns
Two Plus Two is not Five, Susan Greenwald
Read It! Draw It! Solve It! Grade 1 – 3, Elizabeth Miller
50 Problem Solving Lessons, Marilyn Burns
Figure It Out – Thinking Like a Math Problem Solver, Grade 1 – 3, Sandra Cohen

4th—6th (Ages 9-12) Mathematics Curriculum

This document is the core of the curriculum plan for the child as described above. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

Mathematics Continuum for 4th-6th (Ages 9-12)

Enduring Understandings	Essential Questions	Transfer Knowledge
Mathematics can be used to solve problems outside of the mathematics classroom. Mathematics is built on reason and always makes sense. Reasoning allows us to make conjectures and to prove conjectures. Classifying helps us build networks for mathematical ideas. Precise language helps us express mathematical ideas and receive them.	Is your plan working? Do you need to reconsider what you are doing? How are solving and proving different? How are showing and explaining different? How do you know when you have proven something? What does it mean to verify a conjecture? How do you make sense of different strategies? How do you determine the strengths and weaknesses of different strategies? How do you determine similarities and differences of strategies? Why do we classify? Why do we classify: numbers, geometric objects, functions?	Recognize a problem in their everyday life and seek a solution. Approach a situation with a plan to solve a problem. Use mathematics to solve problems in their everyday life. Adjust the plan as needed based on reasonableness. Offer mathematical proof that their solution was valid. Recognize patterns and classify information to make sense of their ideas. Communicate effectively, orally and in writing, using mathematical terms to explain their thinking. Use this knowledge of mathematics to: Represent numbers in a reasonable way for a given situation Use computation at their appropriate level Create a visual representation of a problem (graphs, charts, tables) Gather information and use it to make reasonable predictions of future events Explain their thinking and persuade others to their point of view Recognize and apply spatial relations to the mathematical world

Math Strand Number Sense & Numeration	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understanding numbers, ways of representing numbers, relationships among numbers, and number systems	Show whole/part relationships of common fractions and decimals to demonstrate understanding of numbers less than one. **(CC.3.NF.1)** Connect representations of decimal and fraction values for halves, fourths and tenths (concrete). **(CC.4.NF.6)** Demonstrate place value concepts of whole numbers to 100,000. Students extend their understanding of place value ways of representing number to 100,000 in various contexts. **(CC.4.NBT.1), (CC.4.NBT.2)** Understand and apply models of multiplication: arrays & shares, decanomial. **(CC.4.NBT.5)** Compare and order fractions using models, benchmark fractions or common numerators or denominators. **(CC.4.NF.2)** Understand and use models including number line to identify equivalent fractions. **(CC.4.NF.1)** Recognize the differences in size of a unit and how it affects the size of fractional and decimal parts. **(CC.3.NF.1)** Demonstrate an understanding of order relations for common fractions and for decimals in similar place values using physical, verbal, and symbolic representations (fourths, eights, thirds, tenths). **(CC.4.NF.2), (CC.5.NBT.3)** Round decimals to whole numbers as an estimation strategy. **(CC5.NBT.4)** Understand place value to numbers through millions and millionths in various contexts. **(CC.4.NBT)** Estimate quotients using two digit divisors. **(CC.5.NBT.6)** Connect equivalent fractions and decimals by comparing models to symbols. **(CC.4.NF.6)** Locate equivalent symbols on the number line. **(CC.4.NF.2)** Demonstrate decimal place value to 100^{th} place. **(CC.4.NF.6)** Identify decimal equivalents of common fractions (e.g. ¼ and .25). **(CC.4.NF.5), (CC.4.NF.6)** Compare and order decimals. **(CC.4.NF.7)** Use various forms of 1 to demonstrate equivalence of fractions. **(CC.3.NF.3b)** Order and compare fractions, decimals and percents using concrete materials, drawing or pictures, and mathematical symbols. **(CC.4.NF.2)** Compose whole numbers using factors. **(CC.4.OA.4)** Use estimation to determine relative sizes of amounts or distances. **(CC.2.MD.3), (CC.3.MD.2)** Use place value understanding to round multi-digit whole numbers to any place. **(CC.4.NBT.3)**	Distributive property of multiplication. **(CC.6.NS.4)** Demonstrate place value concepts with decimals. **(CC.5.NBT.1), (CC.5.NBT.3)** Compose whole numbers using exponents. **(CC.6.EE.1)** Describe and use equivalent relationships among commonly used fractions, decimals and percents. Estimate the results of multiplying or dividing by a positive number less than one. **(CC.5.NF.4)** Demonstrate place value using powers of ten (e.g. a finite decimal multiplied by an appropriate power of 10 is a whole number (.25 x 100 = 25). **(CC.5.NBT.2), (CC.5.NBT.3a)** Demonstrate an understanding of order relations for fractions, decimals, percents, and integers. **(CC.6.NS.6)** Describe the relative effect of operations on integers. **(CC.7.NS.1)** Use scientific notation. **(CC.8.EE.3)** Solve problems using ratio and rate. **(CC.6.RP.3)** Estimate decimal or fractional amounts in problem solving. Understand the concept of a ratio and use ration language to describe a ratio relationship between two quantities. **(CC.6.RP.1)** Understand the concept of a unit rate a/b associated with a ratio a:b with b≠0, and use rate language in the context of a ratio relationship. **(CC.6.RP.2)** Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables and plot the pairs of values on the coordinate plane. Use tables to compare ratios. **(CC.6.RP.3a)** Solve unit rate problems including those involving unit pricing and constant speed. **(CC.6.RP.3b)** Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. **(CC.6.RP.3c)** Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. **(CC.6.RP.3d)**

Instructional Strategies / Materials for Number Sense and Numeration

Individual and Small group lessons using:
TERC and Connected Mathematics, Key to Series:
TERC - grades 3-5, Connected Mathematics - Grades 6-8
Key To Series is all grades
TERC, and Mathematics In Context Lessons:
4th: Mathematical Thinking at Grade 4; Arrays and Shares; Landmarks in the Thousands; Different Shapes, Equal Pieces; The Shape of Data; Money, Miles and Large Numbers; Changes over Time; Packages and Groups.
5th: Mathematical Thinking at Grade 5; Picturing Polygons; Name that Portion; Between Never and Always; Building on Numbers You Know; Patterns of Change; Containers and Cubes; Data: Kids, Cats and Ads
6th: Prime Time; Bits and Pieces I; Bits and Pieces II; Bits and Pieces III; How Likely Is it?; Covering and Surrounding
7th: Data Around Us; Comparing and Scaling; Moving Straight Ahead; Accentuate the Negative
Montessori Materials:
4th: Bank game, large bead frame, yellow decimal board, Mortensen
5th: Golden boards (divisibility), yellow board, checkerboard, small board, red fraction materials
6th: Integer snake game, peg board (multiples and factors)
7th: Integer snake game, large skittles

Math Strand Operations/Algebra	Common Core Standards Targeted Skills: Earlier Development ← → Later Development	
Understanding the meaning of operations and how they are related to one another. *Computing fluently and making reasonable estimates.* *Across all ages, children as developmentally appropriate:* *Graphically represent a problem and solution.* *Select appropriate methods of calculation from among mental math, paper and pencil, calculators, and computers.*	Know and use multiplication and division fact families fluently. **(CC.3.OA.7)** Develop use and explain algorithms for addition and subtraction. **(CC.3.NBT.2), (CC.4.NBT.4)** Develop use and explain strategies to add and subtract common fractions (thirds, fourths, halves, eighths). **(CC.5.NF.1)** Multiply whole numbers with at least one two-digit factor. **(CC.4.NBT.5)** Add sums with three or more addends, both single digit and multi-digit numbers up to 1,000,000 abstractly. **(CC.4.NBT.4)** Use single digit and multi-digit whole numbers with regrouping. **(CC.4.NBT.4), (CC.5.NBT.5)** Analyze real world problems to identify relevant information and apply appropriate mathematical processes: multiplication and division. **(CC.4.OA.2), (CC.4.OA.3)** Demonstrate understanding of factors and multiples. **(CC.4.OA.4)** Estimate decimal or fractional amounts in problem solving. **(CC.5.NF.2), (CC.5.NBT.7)** Understand the inverse relationship of multiplication and division. **(CC.3.OA.6)** Recognize, define, and use mathematical terms: addend, sum, subtrahend, minuend, difference, multiplicand, multiplier, product, partial product, divisor, dividend, quotient, and percent. **(CC.6.EE.2b)** Multiply whole numbers with at least one multi-digit factor (as the multiplier or multiplicand). **(CC.5.NBT.5)** Use whole numbers abstractly to multiply and divide with multi-digit multipliers and dividers. **(CC.5.NBT.5), (CC.5.NBT.6)** Use multiplication and division to generate equivalent fractions and sim-	Recognize symbols: decimals, exponents, brackets, and equivalence. **(CC.5.OA.1)** Develop, use, and explain algorithms for multiplication and division. **(CC.5.NBT.5), (CC.6.NS.2), (CC.6.NS.3)** Add and subtract decimals to the tenths and hundredths place value. **(CC.5.NBT.7)** Develop, use and explain strategies to multiply and divide fractions and decimals effectively. **(CC.5.NBT.7), (CC.5.NF.4), (CC.5.NF.6), (CC.5.NF.7)** Use addition and subtraction with fractions and decimals with understanding. **(CC.5.NF.1), (CC.5.NF.2), (CC.5.NBT.7)** Develop understanding of order of operations including grouping symbols or exponents with or without calculators. **(CC.5.OA.1), (CC.5.OA.2)** Students explore contexts in which they can describe negative numbers such as owing money, elevations below sea level. **(CC.6.NS.5)** Develop, use and explain strategies to add, subtract, multiply, and divide integers. **(CC.7.NS.1), (CC.7.NS.2)** Apply order of operations with and without calculators. **(CC.5.OA.1)** Use fractions and decimals to solve problems in real life situations. **(CC.5.NF.2), (CC.5.NF.6), (CC.5.NF.7c)** Connect ratio and rate to multiplication and division (use example from focal point grade 6 in # operations).**(CC.7.RP.2)** Apply the inverse relationship between multiplication and division to

Math Strand Operations/Algebra	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding the meaning of operations and how they are related to one another. *Computing fluently and making reasonable estimates.* *Across all ages, children as developmentally appropriate:* *Graphically represent a problem and solution.* *Select appropriate methods of calculation from among mental math, paper and pencil, calculators, and computers.*	plify fractions. **(CC.4.NF.1)** Make reasonable estimates of fraction and decimal sums and differences. **(CC.5.NF.2), (CC.5.NBT.7)** Add and subtract fractions and decimals to solve problems (story problems). **(CC.5.NF.2), (CC.5.NBT.7)** Explore prime and composite numbers. **(CC.4.OA.4)** Use common factors and multiples to add and subtract fractions. **(CC.5.NF.1)** Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations. **(CC.4.OA.1)** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. **(CC.4.OA.2)** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. **(CC.4.OA.3)** Assess the reasonableness of answers using mental computation and estimation strategies including rounding. **(CC.4.OA.3)** Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. **(CC.4.NF.3a)** Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate this way.* **(CC.4.OA.5)** Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 +1/8; 3/8 = 1/8 +2/8. **(CC.4.NF.3b)** Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and /or by using properties of operation and the relationship between addition and subtraction. **(CC.4.NF.3c)**	make sense of procedures to multiply and divide fractions and decimals. **(CC.5.NF.4)** Students express division of two whole numbers as a fraction (e.g. 4 divided by 2 =4/2). **(CC.5.NF.1)** Remainders in division problems are expressed as fractions and/or decimals. Develop fluency with standard procedures for adding and subtracting fractions and decimals. **(CC.6.NS.3)** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. **(CC.6.NS.1)** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. **(CC.6.NS.4)** Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. **(CC.6.NS.4)** Understand a rational number as a point on the number line. **(CC.6.NS.6)** Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative coordinates. **(CC.6.NS.6)** Understand ordering and absolute value of rational numbers. **(CC.6.NS.7)** Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. **(CC.6.NS.7a)** Write, interpret, and explain statements of order for rational numbers in real-world contexts. **(CC.6.NS.7b)** Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as a magnitude for a positive or negative quantity in a real-world situation. **(CC.6.NS.7c)** Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance of -30 dollars represents a debt greater than 30 dollars.* **(CC.6.NS.7d)** Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. **(CC.6.NS.8)** Use coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. **(CC.6.NS.8)**

Math Strand Operations/Algebra	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
Understanding the meaning of operations and how they are related to one another. *Computing fluently and making reasonable estimates.* *Across all ages, children as developmentally appropriate:* *Graphically represent a problem and solution.* *Select appropriate methods of calculation from among mental math, paper and pencil, calculators, and computers.*	Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem. **(CC.4.NF.3d)** Understand a fraction *a/b* as a multiple of *1/b*. **(CC.4.NF.4a)** Understand a multiple of *a/b* as a multiple of *1/b* and use this understanding to multiply a fraction by a whole number. **(CC.4.NF.4b)** Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. **(CC.4.NF.4c)** Interpret a fraction as a division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answer in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. **(CC.5.NF.3)** Compare the size of a product to the size of one factor on the basis of the other factor without performing the indicated multiplication. **(CC.5.NF.5a)** Explain why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers great than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (nxa)/(nxb)$ to the effect of multiplying *a/b* by 1. **(CC.5.NF.5)** Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. **(CC.5.NF.7a)** Interpret division of a whole number by a unit fraction, and compute such quotients. **(CC.5.NF.7b)**	Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5-y.* **(CC.6.EE.2a)** View one or more parts of an expression as a single entity. *For example, view (8+7) as both a single entity and a sum of two terms.* **(CC.6.EE.2b)** Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. **(CC.6.EE.3)** Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). **(CC.6.EE.3)** Identify when two expressions are equivalent. **(CC.6.EE.4)** Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? **(CC.6.EE.5)** Use substitution to determine whether a given number in a specified set make an equation or inequality true. **(CC.6.EE.5)** Solve problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers. **(CC.6.EE.7)** Write an inequality of the form $x > c$ or $x < c$ to represent a constraint of a condition in a problem. **(CC.6.EE.8)** Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent these solutions on a number line diagram. **(CC.6.EE.8)** Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation using variables appropriately. **(CC.6.EE.9)** Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the corresponding equation. **(CC.6.EE.9)**

Instructional Strategies / Materials for Operations/Algebra - Individual and small group lessons using the following:

TERC and Mathematics In Context Lessons:

4th: Mathematical Thinking at Grade 4; Arrays and Shares; Landmarks in the Thousands; Different Shapes, Equal Pieces; The Shape of Data; Changes Over Time; Packages and Groups; Sunken Ships and Grid Patterns; Three out of Four Like Spaghetti
5th: Building on Numbers You Know; Patterns of Change
6th: Prime Time; Bits and Pieces III; Data About Us
7th: Variables and Patterns; Moving Straight Ahead

Montessori Materials:

4th: decanomial, long chains, binomials/trinomials,
5th: algebraic decanomial, pegboard (multiples, factors)
6th: squaring, square roots, cubing
6th and 7th: Key to Algebra; Variables, Terms, & Expressions; Equations; Polynomials; Rational Numbers; Multiplying & Dividing; Adding & Subtracting; Rational Expressions

Math Strand Patterns	**Common Core Standards Targeted Skills**	
	Earlier Development ⟷	**Later Development**
Understanding patterns, relationships and functions. *Representing and analyzing mathematical situations and structures using algebraic symbols.* *Using mathematical models to represent and understand quantitative relationships*	Place and read most frequently used fractions and decimals on a number line (eighths, fourths, halves). **(CC.3.NF.2a)** Use letters as representations of unknown variable quantities (8+n=11). **(CC.4.OA.3)** Relate the dimensions of a rectangle to factors and products. **(CC.3.G.7)**	Produce tables, rules, and graphs to describe patterns and relationships. Create and analyze a wide variety of numeric and geometric patterns. **(CC.4.OA.5), (CC.5.OA.3)** Understand the difference between an unknown quantity and a variable quantity. **(CC.6.EE.6)** Identify geometric patterns and relationships and draw or describe the next figure. **(CC.4.OA.5)** Analyze a function and describe how to get the next term from the previous term. Find numbers that make inequalities true, such as $x < 8$ or $2 + x < 10$. **(CC.6.EE.5), (CC.6.EE.8)** Develop an understanding of the use of a rule to describe a sequence of numbers or objects. **(CC.6.EE.6)** Analyze a relationship and describe how to get the next term from the previous term. Create a function and state the rule as an equation. Connect corresponding situations and graphs, using a double bar, line graph, and coordinate grid. Use informal methods to model and solve real world proportional situations. **(CC.6.RP.3)** Solve one-step linear equations and inequalities using concrete or informal methods (e.g. x+4=9). **(CC.6.EE.7)** Connect corresponding situations with graphs, tables, or equations. Understand that variables represent numbers whose exact values are not specified. **(CC.6.EE.6)** Model and solve real world proportional and linear situations using tables, graphs, or equations. Solve two-step linear equations and inequalities using concrete informal or formal methods. **(CC.7.EE.4)**

Math Strand Patterns	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understanding patterns, relationships and functions. *Representing and analyzing mathematical situations and structures using algebraic symbols.* *Using mathematical models to represent and understand quantitative relationships*		Describe the interrelationships among tables, graphs, and equations. Understand that expressions in various forms can be equivalent (e.g. x+x+2=2x+2; 3x+x+5=4x+5) **(CC.6.EE.4)** Know that the solutions of an equation are the values of variables that made the equation true. **(CC.6.EE.5)** Solve simple one-step equation by using number sense, properties of operations, and the idea of maintaining equality on both sides of the equation (e.g. x+3=7). **(CC.6.EE.7),** Solve multi step equations and inequalities using inverse operations. **(CC.7.EE.4)** Analyze linear relationships to explain how a change in one quantity results in a change in another. **(CC.6.RP.1), (CC.7.RP.2)** Identify geometric patterns and relationships and generalize the patterns algebraically.

Instructional Strategies / Materials for Patterns

Individual and small group lessons using the following:
TERC, and Mathematics In Context Lessons:
4th: Different Shapes; Equal Pieces; The Shape of Data; Money, Miles, and Large Numbers; Changes Over Time; Sunken Ships and Grid Patterns
5th: Picturing Polygons; Measurement Benchmarks; Patterns of Change; Containers and Cubes; Data: Kids, Cats, and Ads
6th: Shapes and Designs; Covering and Surrounding
7th: Stretching and Shrinking; Filling and Wrapping; Variables and Patterns
Montessori Materials:
4th: decanomial, long chains, binomials/trinomials,
5th: algebraic decanomial, pegboard (multiples, factors)
6th: squaring, square roots, cubing
6th and 7th: Key to Algebra; Variables, Terms, & Expressions; Equations; Polynomials; Rational Numbers; Multiplying & Dividing; Adding & Subtracting; Rational Expressions

Math Strand **Measurement & Data**	**Common Core Standards Targeted Knowledge and Skills** **Earlier Development** ⟷ **Later Development**	
Understanding measurable attributes of objects and the units, systems, and processes of measurement. *Applying appropriate techniques, tools, and formulas to determine measurements*	Learn to quantify area by finding the total number of same sized units of area that cover the shape without gaps or overlaps. **(CC.3.MD.5a), (CC.3.MD.5b), (CC.3.MD.6), CC.3.MD.7a)** Estimate and measure the perimeter of polygons given the length of sides. **(CC.3.MD.8)** Use an analog and digital clock to determine the amount of elapsed time. **(CC.3.MD.1)**Make change by counting on or counting back. **(CC.3.MD.8)** Round money as an estimation strategy. Square unit is the standard unit for measuring area. **(CC.3.MD.5)** Select appropriate units for measuring area. **(CC.3.MD.5a)** Apply strategy to measure or estimate area. **(CC.3.MD.6), (CC.3.MD.7)** Identify the relationship between perimeter and area. **(CC.3.MD.8)** Select an appropriate standard square unit and use it to cover, count, and compare the area of shapes. **(CC.3.MD.5b), (CC.3.MD.6)** Estimate and measure the perimeter of polygons with incomplete information. **(CC.3.MD.8)** Use physical models to develop formulas for the area of rectangles and triangles. **(CC.3.MD.6), (CC.3.MD.7), (CC.6.G.1)** Relate the dimensions of a rectangle to factors and their products. **(CC.3.MD.7a)** Estimate and measure angles. **(CC.4.MD.6)** Compare measurable attributes of perimeter and area.**(CC.3.MD.8)** Select an appropriate standard square unit and use it to cover, count, and compare the area of shapes. **(CC.3.MD.6), (CC.3.MD.7)** Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz; l, ml; hr, min, sec. **(CC.4.MD.1)** Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. **(CC.4.MD.1)** Record measurement equivalents in a two-column table. **(CC.4.MD.1)** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in larger unit in terms of a smaller unit. **(CC.4.MD.2)** Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale. **(CC.4.MD.2)** Apply area and perimeter formulas for rectangles in real world and mathematical problems. **(CC.4.MD.3)** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). **(CC.4.MD.4)** Solve problems involving addition and subtraction of fractions by using information presented in line plots. **(CC.4.MD.4)**	Select an appropriate standard cubic unit and use it to count, fill, and compare volume-capacity. **(CC.5.MD.3), (CC.5.MD.4), (CC.5.MD.5a)** Demonstrate an understanding of when to use a unit, a square unit, and a cubic unit. Recognize volume as an attribute of three-dimensional space. **(CC.5.MD.3)** Understand that a cube that is 1 unit on an edge is a standard unit for measuring volume. **(CC.5.MD.3a)** Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05m), and use these conversions in solving multi-step, real world problems. **(CC.5.MD.1)** Apply the formulas $V = l$ x w x h and V= b x h to find the volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems. **(CC.5.MD.5b)** Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. **(CC.5.MD.5c)** Use all four operations on fractions to solve problems involving information presented in line plots. **(CC.5.MD.2)**

Math Strand Measurement & Data	Common Core Standards Targeted Knowledge and Skills Earlier Development	Later Development
Understanding measurable attributes of objects and the units, systems, and processes of measurement. *Applying appropriate techniques, tools, and formulas to determine measurements*	Understand that an angle is measured with reference to a circle with its center at the common end-point of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. **(CC.4.MD.5a)** Understand that an angle that turns through n one-degree angles is said to have an angle measure of *n* degrees. **(CC.4.MD.5b)** Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. **(CC.4.MD.7)** Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. **(CC.4.MD.7)**	

Instructional Strategies / Materials for Measurement and Data

Individual and small group lessons using the following:
Montessori Materials, TERC, and Mathematics In Context Lessons
4th: Different Shapes, Equal Pieces
5th: Measurement Benchmark, Containers and Cubes
6th: Shapes & Designs, Covering & Surrounding
4th: Geoboards, equivalence materials, constructive triangles
5th: Area materials
6th: 3-D solids, box of cubes
Key to Measurement
4th English Units of Length, Metric Units of Length
5th Measuring Length and Perimeter, Using English Units, Measuring Length & Perimeter Using Metric Units
6th Finding Area and Volume Using English Units, English Units for Weight, Capacity Temperature, and Time, Finding Area and Volume Using Metric Units, Metric Units for Mass, Capacity Temperature & Time

Math Strand **Geometry**	**Common Core Standards Targeted Knowledge and Skills** **Earlier Development** ⟷ **Later Development**	
Observing and analyzing the shapes and properties of two- and three-dimensional geometric shapes. *Developing mathematical arguments about geometric relationships.* *Specifying locations and describe spatial relationships using coordinate geometry and other representational systems.* *Applying transformations and symmetry* *Using visualizations, spatial reasoning and geometric modeling to solve problems.*	Recognize area as an attribute of two dimensions of regions. **(CC.3.G.5)** Identify and classify angles. **(CC.4.G.1)** Define polygons using their attributes (parallel or perpendicular sides, classification of angles). **(CC.4.G.2)** Identify geometric relationships in the real world (e.g. lines, angles) Design and analyze simple tilings and tessellations. Estimate and classify angles **(CC.4.G.1)** Investigate and predict how shapes change when combined or subdivided. **(CC.1.G.2), (CC.6.G.1)** Measure angles using a protractor. **(CC.4.MD.6)** Recognize a line of symmetry for a two-dimensional figure, identify line-symmetric figures and draw lines of symmetry. **(CC.4.G.3)**	Use physical models to develop formulas for the area of circles. **(CC.7.G.4)** Measure and find the ratio of the circumference and the diameter of circular objects to obtain an estimation of Pi. **(CC.7.G.4)** Use physical models to develop formulas for the circumference of circles and the area of parallelograms and trapezoids. **(CC.6.G.1)** Select appropriate units, strategies, and tools for solving problems that involve estimating or measuring volume. **(CC.5.MD.4)** Use physical models to develop formulas for the volume and surface area of rectangular and triangular prisms. **(CC.6.G.4)** Demonstrate an understanding of the relationships between surface area and volume of a three dimensional figure. **(CC.6.G.4)** Identify, compare, and classify two- and three- dimensional figures (e.g. prisms, cones) by sides and angles. **(CC.5.G.4)** Discover and demonstrate that transformations such as reflections (flips), translations (slides), and rotations (turns), maintain congruence. **(CC.8.G.1)** Given a template, build three-dimensional figures. **(CC.6.G.4)** Draw plane figures with identified attributes. **(CC.7.G.2)** Draw an example of a flip, slide, or turn, given a model. **(CC.8.G.1)** Identify and explain congruent, equivalent and similar relationships. **(CC.8.G.2)** Create templates of three-dimensional figures. **(CC.6.G.4)** Use a compass and straight edge to illustrate congruence and geometric relationships. Analyze properties of polyhedral solids, describing them by the number of edges, faces, or vertices. **(CC.2.G.1)** Discover and demonstrate transformation of scale, size, and proportionality in congruent and similar figures applied on the coordinate plane. **(CC.7.G.1), (CC.8.G.3)** While working with surface area, find and justify relationships among the formulas for the areas of various polygons **(CC.6.G.4)** Use appropriate vocabulary for coordinate graphing: axes, origin, coordinates, x-axis, y-axis, x-coordinate, y-coordinate, coordinate pair. **(CC.5.G.1)** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, **(CC.5.G.1), (CC.5.G.2)** *Continued* Interpret coordinate values of points on a coordinate graph in the first quadrant in the context of the situation. **(CC.5.G.2)** Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have*

Math Strand Geometry	Common Core Standards Targeted Knowledge and Skills Earlier Development ⟷ Later Development	
		four right angles and squares are rectangles, so all squares must have four right angles. **(CC.5.G.3)** Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. **(CC.6.G.2)** Apply the formulas $V = lwh$ and $V = bh$ to fin volumes of right rectangular prisms with fractional edge lengths in the context of solving problems. **(CC.6.G.2)** Draw polygons in the coordinate plane given coordinates for the vertices. **(CC.6.G.3)** Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. **(CC.6.G.3)**

Instructional Strategies / Materials for Geometry

Individual and small group lessons using:

TERC, and Mathematics In Context Lessons:

4th: Mathematical Thinking at Grade 4; Arrays and Shares; Seeing Solids and Silhouettes; Different Shapes, Equal Pieces; Sunken Ships and Grid Patterns

5th: Picturing polygons; Measurement benchmarks; Patterns of change; Containers and cubes; Data: Kids, Cats and Ads

6th: Shapes & Designs

7th: Stretching and shrinking; Filling and wrapping

Montessori Materials:

4th: Geoboards, equivalence materials, constructive triangles

5th: Area materials

6th: 3-D solids, box of cubes

Key to Measurement

Math Strand Probability	Common Core Standards Targeted Skills Earlier Development ⟷ Later Development	
Understanding and apply basic concepts of probability. *Developing and evaluating inferences and predictions that are based on data.* *Formulating questions that can be addressed with data and collect, organize, and display relevant data to answer them.* *Selecting and use appropriate statistical methods to analyze data.*	Systematically collect, organize, construct and describe data. **(CC.6.SP.4), (CC.6.SP.5)** Select and use data displays. **(CC.6.SP.4)** Support conclusions drawn from interpretation of data. **(CC.6.SP.5)** List all probable outcomes for a probability experiment involving a single event. **(CC.7.SP.7)**	Use vocabulary to describe outcomes (likely, unlikely, possible, probable). **(CC.7.SP.5)** Conduct a probability experiment and draw conclusions from the results. **(CC.7.SP.6)** Calculate and use mean, median, mode, and range to interpret data. **(CC.6.SP.2), (CC.6.SP.3), (CC.6.SP.5), (CC.7.SP.3), (CC.7.SP.4)** Use proportional reasoning to predict how often a simple probability event will occur in some number of trials. **(CC.7.SP.6)** Solve problems by making frequency tables, bar graphs, picture graphs, and line plots. **(CC.6.SP.5)** Apply understanding of place value to develop and use stem and leaf plots. Construct and describe displays of data. **CC.6.SP.4), (CC.6.SP.5)** Use real world data to estimate the probability for future events. **(CC.7.SP.7)** Use probability to predict and explain the outcome of a simple experiment. **(CC.7.SP.6)** Analyze a sample to make inferences about a population. **(CC.7.SP.2)** Design an appropriate experiment and apply principles of probability for a simple or compound event. (e.g., games of chance, board games, spinners, dice games, coins, cards). **(CC.7.SP.6), (CC.7.SP.7a), (CC.7.SP.8)** Collect, organize, describe, and make predictions with data. **(CC.6.SP.5)** Defend conclusions drawn from the interpretation of data. **(CC.6.SP.5d)** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.* **(CC.6.SP.1)** Interpret a numerical data set to determine the number of observations. **(CC.6 SP.5a)** Describe the nature of the attribute under investigation in a numerical data set, including how it was measured and its units of measurement. **(CC.6 SP.5b)** Give quantitative measures of center (median and/or mean) and variability (interquartile range and/or absolute deviation) as well as describe an overall pattern and any striking deviations from the overall pattern with reference to the context in which a set of numerical data were gathered. **(CC.6 SP.5c)** Relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered for a numerical data set. **(CC.6 SP.5d)**

Instructional Strategies / Materials for Probability

Individual and Small group lessons using:
TERC and Connected Mathematics, Key to Series.

TERC is grades 3-5, Connected Mathematics is Grades 6-8, Key To Series is all grades

4th: The Shape of Data; Changes over Time; Three out of Four Like Spaghetti;

5th: Mathematical Thinking at Grade 5; Patterns of Change; Containers and Cubes; Data: Kids, Cats and Ads

6th: How Likely Is it?; Data About us

7th: Variables and Patterns; Moving Straight Ahead; What do you Expect?; Data Around Us

Off Track Indicators

Child has difficulty with spatial organization (placing numbers on the page) or organizing/using the materials to complete a problem.
Student is not comfortable using mathematical language or has difficulty with math vocabulary words.
Student has difficulty seeing how concepts (e.g., addition and subtraction, or ratio and proportion) are related to each other.
Student has problems transferring concepts learned in the math classroom to real life situations.
Student has an inability to determine reasonableness of a solution or problem.
Student is confused by the language of word problems (e.g., when irrelevant information is included or when information is given out of sequence).
Student does not know how to get started on word problems or how to break down problems into simpler sub problems.
Student has difficulty reasoning through a problem or difficulty using strategies effectively during problem solving.
After being taught a concept using multiple materials, child still cannot grasp the concept or process.
Student does not have a strong sense of number/place value/quantity.
Student does not understand that there are basic patterns in numbers.

Assessments

Specific assessments are not listed under each strand, the following may be used to assess each student's growth.

Formal Assessments

AIMS Web Test of Concepts & Application for 4-6
AIMS Web Test of Computation 4th-6th
TERC Assessments
Connected Mathematics Assessments
ERB-CTP4
Work Samples correlated with standards
Work Samples related to goals for math in portfolios
Observation leading to Anecdotal Records
Curriculum Based Measurement
Math Journal entries correlated with standards & goals for math

Informal Assessments

	DCAS	Anecdotal Records	Portfolios	Journals	TERC	AIMS	MAS	AMC
Proficiencies		X	X	X	X	X	X	X
Number Sense / Numeration	X	X	X	X	X	X		X
Operations/Algebra	X	X	X	X	X		X	X
Patterns	X	X	X	X	X		X	X
Geometry	X	X	X	X	X		X	
Probability	X	X	X	X	X		X	

Resources

TERC: Implementing the Investigations in Number, Data and Space Curriculum (Dale Seymour Publications) Grades 4-5
Connected Mathematics (Pearson, Prentice Hall), Grades 6-7
Key To Series by Key Curriculum Press
What's Happening in Math Class? Deborah Schifter
Good Questions for Math Teaching, K-6, Peter Sullivan and Pat Lilburn
Good Questions for Math Teaching 6-8, Peter Sullivan and Pat Lilburn
Good Questions, Great Ways to Differentiate Mathematics Instruction, Marian Small
Writing in Math Class, A Resource for Grades 2-8, Marilyn Burns
Family Math: Jean Kerr Stenmark, Virginia Thompson, and Ruth Cossey
Build It! Festival, Mathematics Activities for Grades K-6, Teacher's GEMS Guide
A Collection of Math Lesson from Grades 6-8, Marilyn Burns and Cathy Humphreys
A Collection of Math Lessons from Grades 3-6, Marilyn Burns
Hands-On Math Projects with Real-Life Applications Grades 3-5, Judith A. Muschla and Gary Robert Muschla
Hands-On Math Projects with Real-Life Applications Grades 6-8, Judith A. Muschla and Gary Robert Muschla
Understanding and Solving Word Problems, Step by Step Math, Curriculum Associates Inc.

Cultural Curriculum
(Integrated Social Studies and Science)

Sussex Montessori School

The mathematics curriculum is built around several research based curriculum and standards documents including:
The National Common Core Standards
State of Delaware Science & Social Studies Standards
National Geography Standards

Thank you to the Elementary Workshop Montessori School, First State Montessori Academy and Wilmington Montessori School for providing wisdom and input to the development of this curriculum.

Table of Contents

Introduction to the Cultural Curriculum Framework

The Montessori Cultural Curriculum (Integrated Science/Social Studies), requires that teachers have knowledge of "Over-Arching Big Ideas and Thought Processes," related to their course areas. They also need tools to assess when students demonstrate the development of the big ideas, human potentials, and thought processes as they work within various integrated projects and classroom experiences. Teachers also need a clear understanding of the knowledge goals for thinking within the various content strands of Science and Social Studies. The Montessori Cultural Curriculum Framework (Integrated Science/Social Studies) provides teachers with the goals for each of these strands at each multi-age stage of development (5-7, 7-9, and 9 -12 year olds). Consistent with the goals of the Delaware Recommended Curriculum (2006), the framework is designed to support a learning environment in which students will:

- Be engaged in authentic and purposeful activities.
- Be instructed using materials appropriate to their individual and developmental needs.
- Be active participants in gathering information from a variety of sources.
- Be engaged in integrated and meaningful communication;
- Be assessed through ongoing instructional activities which require them to solve problems, gather and use resources, work collaboratively, and assume responsibility for their learning.
- Access, organize, and communicate information using modern technology.
- Experience a multicultural perspective.
- Reflect on their own development and set goals for their learning.
- Be constructive and critical members of a community of life- long learners.

Teachers use **Understanding by Design (UbD)** model of instructional planning, teachers use that framework to develop specific long-term studies connected around "enduring understandings" of the Montessori Cultural Curriculum. These are explained on the charts that follow, and include the "unity of humans," the "unity of all living things on earth," and the "unity of the earth itself." These enduring understandings align with the enduring understandings of the Delaware Science and Social Studies Content Standards. For the K-1st (ages 5-7) and the 2nd-3rd (ages 7-9) multi-age programs, the children focus on two essential questions that arise from these three enduring understandings. This creates two-year-long cycles for each two-year multi-age program integrating science and social studies content standards together under each essential question. This integration extends to the Mathematics and English Language Arts standards as children use these tools to communicate and evaluate their understandings of the world.

The first year, or cycle, is devoted to the concept of "What does it mean to be Human?" and the second year, or cycle, to "How does the World Work?" During the K-3 years, students study these questions within the context of continent studies. In other words, they explore what it means to be human and how the world works through the lens of various cultures on each continent. In the 4th-6th (ages 9-12) multi -age program, the children focus on three cycles, adding a third essential question, "What is Culture?" Children learn to use language, mathematics, scientific inquiry, and research to develop their inquiry-based studies.

The Curriculum Framework provides the teacher with the standards that must be addressed within the context of the unit developed and the projects in which the children engage. Instructional strategies are used in small group and individual lessons/projects. These include hands-on Montessori materials, the Science Coalition Kits and resources, various resources such as the National Geographic lessons, Delaware Social Studies Standards, books, and other media to meet the individual instructional needs of children. These materials are not provided to limit resources available, but to offer a starting place for the development of instructional units. Small group lessons, individual lessons, and projects provide opportunities for teachers to observe children and to evaluate their progress towards the goals for learning across each strand of the science and social studies curriculum, as well as their understanding and demonstration of the "Over-arching Big Ideas and Thought Processes." The Framework provides various formative and summative assessment tools for teachers to confirm their observations and to make adjustments in instruction as a result of those observations. These tools include daily observations, teacher designed assessments, Science Kit assessments, etc. The RTI model of assessment/instruction allows teach-

ers to adjust instructional strategies and follow more closely the progress of children who are off-track learners.

The development of the child in the Montessori Cultural Curriculum (Integrated Science/Social Studies) is embedded within the context of a classroom that supports the best educational practices. It is generally accepted that the workforce of the future will require skills such as creative and innovative thinking, comfort with ideas and abstraction, as well as a global worldview and vibrant imagination. Research (Adams, 2005) shows that children develop these skills in classrooms designed to promote intrinsic motivation, classrooms that provide choice, time for focus and deep study in areas of interest, opportunities to experiment and discover, and a focus on "what did you learn?" rather than "how well did you do?" The overall Montessori Program is designed to support the following:

- Focus on **big ideas and essential questions** with **extended work periods** that allow for **depth of understanding** and **development of habits of mind.**
- **Child-centered inclusive** learning environments that utilize **differentiated instruction** and **flexible grouping** to meet individual children's learning needs.
- **Classroom-based assessment** and observation that **informs instructional decision making** as the basis for **RTI.**
- **Hands-on interactive** curricular materials and classroom environment that supports children developing from **concrete to abstract thinking.**
- **Academic development** supported by an emphasis on the **social/ emotional development** of the child within a **multi-age community of learners**.
- **Collaborative learning** and **community service** leading to mutual respect of others and the development of the child's **global perspective.**

This document is designed to support this type of teaching and learning experience.

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Guidelines for the Responsive Classroom – Level 1 and 2. Northeast Foundation for Children

The K-1st (ages 5-7) Cultural Curriculum
(Social Studies/Science)

This document is the core of the curriculum plan for the K-1st (ages 5-7) child. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress.

Social Studies and Science—K—1st (Ages 5-7)

Transfer Knowledge

Transfer Skills in the Integrated Social Studies/ Science curriculum, known as the Montessori Cultural curriculum, are not based on the transfer of a specific body of knowledge, but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Research Skills	Self-expression
Unity of Human Beings: Students understand the similarities and differences of cultures across the world; that people interact with the natural world in distinct ways that produce cultural uniqueness; that people, places, and environments are integrated; that life involves producing and consuming. **Unity of all Living Things on Earth:** Students will show respect for the beauty and wonder of nature. They develop an understanding of how, through science, we learn how nature works. They understand that all people use natural resources to meet a variety of human needs. *Continued* This use of resources defines many	**Students will:** Understand the role the human potentials play in both their school community and their everyday lives. **Character** – Students are trustworthy, compassionate, and demonstrate integrity. **Leadership** – Students combine vision, ethics, and courage to empower others to make a difference in the community. **Thinking Skills** – Students develop flexibility, perseverance, curiosity, imagination, inventiveness, wonder, and the ability to reflect on process and product which support lifelong and collaborative learning in order to address real life challenges. *Continued* **Life Management** – Students develop self-awareness so that in	**Students will:** Understand what makes a question which leads to inquiry and investigation. Plan investigations to address a question or problem. Use mathematics, reading, writing, and technology when conducting an investigation and communicating the results. Synthesize information from various resources and experiences to develop inquiries about the world around them. Determine ways to gather data and use various tools (experiments, surveys, logs, journals, etc.). Understand what constitutes evidence. *Continued* Understand when you have enough evidence.	**Students will:** Discover and express ideas, feelings, beliefs and values. Reflect on how these ideas effect the way they interact with the world. Acquire the skills necessary to successfully participate in groups, which includes defining the objective, dividing responsibilities, and working cooperatively. Demonstrate cooperation, assertion, responsibility, empathy and self-control when communicating with others. Utilize and explore their own creativity. Learn to appreciate the aesthetic. *Continued* Use various technology tools to gather, organize, and communi-

Social Studies and Science—K—1st (Ages 5-7)
Transfer Knowledge

Transfer Skills in the Integrated Social Studies/ Science curriculum, known as the Montessori Cultural curriculum, are not based on the transfer of a specific body of knowledge, but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Research Skills	Self-expression
cross cultural human interactions. **Unity of the Universe Itself:** Students develop an understanding of their relationship and place in the development of the universe, how the earth has changed over time through physical, chemical, and geological processes.	the long run they make responsible, healthy and balanced life/ work choices. **Creative and Artistic** – Students discover and develop creative gifts so that in the long run they will be able to express themselves creatively and artistically, recognize and respect creativity in others, utilize the creativity of others, and preserve flexibility of thought and open-mindedness to look at and meet challenges. **Service and Responsibility** – Students learn the value of service and responsibility so that in the long run they will be able to demonstrate empathy, compassion, social responsibility, and appreciation for others and the world around them.	Interpret evidence and present logical inferences and conclusions to others from the evidence.	cate with others. Use various visual print and artistic mediums to communicate with others. Adapt presentation style and speech for the audience. Present claims and findings in a logically sequenced way, developing concepts to support a position.

Standards Embedded Across Both Years of the K-1st (Ages 5-7) Program

Enduring Understanding Embedded in all three studies	Essential Questions Embedded in all three studies	Standards Embedded in all Three Studies
Social Studies	**Social Studies**	**Social Studies**
The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Mental maps summarize differences and similarities about places. Mental maps change as the scale moves from local to global; we know more about our home area than more distant places; and these differences affect how we feel and behave towards places that are distant versus those that are close. Effective participation in groups leads to effective Democratic governments.	Why is *when* an event happens important? How can words, models, and graphics help us learn about the world? What does it mean to participate effectively in a group? Why does *where* matter? Why does *when* matter?	Students will use clocks, calendars, schedules, and written records to record or locate events in time **(H.1.K-3A).** Students will understand the nature and uses of maps, globes, and other geo-graphics. (**G.1.k-3a)** Students will use artifacts and documents to gather information about groups and their histories **(H. 2.k-3A)** Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively **(C.4.K-3a)**
Science as Inquiry	**Science as Inquiry**	**Science as Inquiry**
Scientific inquiry is a method by which humans seek to understand the natural world. Scientific inquiry involves asking scientifically-oriented questions, collecting evidence, forming explanations, connecting explanations to scientific knowledge and theory, and communicating and justifying the explanation. In a science investigation, a fair test is one in which all of the conditions are kept constant, except the one condition being investigated. The purpose of accurate observations and data collection is to provide evidence. Scientists use tools to enhance their senses in order to obtain more evidence. Scientists use observations from investigations, and knowledge that is already known, to develop an explanation. The purpose of communicating with others is to share evidence and conclusions. Scientists communicate the result of their investigations to others. The use of mathematics, reading, writing, and technology are important in conducting scientific inquiries. The development of technology and advancement in science influence each other and drive each other forward.	What makes a question scientific? What constitutes evidence? When do you know you have enough evidence? Why is it necessary to justify and communicate an explanation?	Generate questions and predictions using observations and exploration about the natural world. **S1.1A (K-3)** Generate and follow simple plans using systematic observations to explore questions and predictions **S1.1B(K-3)** Collect data using observations, simple tools and equipment. Record data in tables, charts, and bar graphs. Compare data with others to examine and question results. **S1.1C (K-3)** Construct a simple explanation by analyzing observational data. Revise the explanation when given new evidence or information gained from other resources or from further investigation. **S1.1D (K-3)** Share simple plans, data, and explanations with an audience, and justify the results using the evidence from the investigation. **S1.1E (K-3)** Use mathematics, reading, writing, and technology when conducting an investigation, and communicating the results. **S1.1F (K-3)** Tools are useful in science to help gather data for observations and measurements, and provide a safe means of conducting an investigation. **S.1.2B(K-3)** People from all parts of the world practice science and make many important scientific contributions. **S.1.3A(K-3)**

Year One: What Does It Mean To Be Human?

Continent Study of North and South America

Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry and research. Thinking like a scientist or a geographer, a historian or a social scientist, they use methods of scientific inquiry and research tools to learn about the natural and human world around them within the context of continent studies. Each program year is comprised of three time-periods or studies which spiral, building complexity throughout the subsequent grade levels. These studies are laid out in this document by use of color coding for each study.

Study One - September, October, November

K-1st (Ages 5-7)
Membership in Groups/ Diversity and Continuity of Living Things

Children understand that everyone holds membership in a variety of groups, beginning with the family. They consider how groups shape our lives, how we, in turn, can shape groups, and they develop a sense of civic and social responsibility. Through this study, children will see themselves as holding membership in a variety of groups from their family, to the classroom, to the larger community. As children explore the diversity and continuity of all living things, they understand that all species belong to groups based on their characteristics; these characteristics are hereditary. All species, including humans, have a cycle of life.

2nd-3rd (Ages 7-9)
Responsibility to Group Membership / Diversity and Continuity of Living Things

Humans have established systems that structure their participation in groups. Children learn the various ways that governments are structured, develop an understanding of the principles of a representative democracy and the responsibilities they have as citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond, and to understand that group membership means having responsibilities, as well as rights. Building on the study of the 5-7 program, children continue to explore the diversity and continuity of living things, and the relationship of humans to the natural world. They understand how humans as organisms are similar and different from other organisms, and that each has a place in the natural world.

4th –6th (Ages 9-12)
The Purpose of Governments and Scientific Advances

This study builds on the understandings of group functioning, rights and responsibilities from the K-1st (ages 5-7) and the 2nd-3rd (ages7-9) programs. The study focuses specifically on civic responsibility. Children learn the various ways that governments are structured, develop an understanding of the principles of a representative democracy and the responsibilities they have a citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond and to understand that citizenship in groups and the U.S. means having responsibilities, as well as rights. Children explore various scientific advances, laws that have been instituted related to scientific knowledge, and how government influences the uses of our natural resources.

Study Two—December, January, February, March		
K-1st (Ages 5-7) **Study Two – Fundamental Needs** All species, including humans have basic fundamental needs. Children distinguish wants from needs, and understand that due to scarcity, individuals, families, classrooms, must make choices in their activities and consumption of their goods and services. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.	**2nd-3rd (Ages 7-9)** **Study Two – Economics of wants and fundamental needs** Children distinguish human wants from needs, and understand that due to scarcity, individuals, families, communities, and societies as a whole, must make choices in their activities and consumption of their goods and services. People make decisions about production and consumption by considering the costs and benefits of various choices. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.	**4th –6th (ages 9-12)** **Study Two** **Place in Time and Space -** **The Universe through the eyes of science and history** Building on the concept that humans seek to place themselves in time and space, children will develop an appreciation for the earth in relationship to the universe. Humans have always sought to explore and understand our place in the universe. Combining scientific thinking and the lens of the historian, children will develop an understanding of the solar system and track the history of human discovery related to space exploration beginning with the earliest scientist and moving to man's most recent explorations.
Study Three — April, May, June		
K-1st (Ages 5-7) **Study Three – Place in Time and Space** Humans have always had a capacity to place themselves in time and space. Students explore the intergenerational connections of the various groups they belong to. They learn about the history and traditions of their own cultures. They gain perspective about where they are located spatially on the planet and in the universe.	**2nd-3rd (Ages 7-9)** **Study Three—Place in Time and Space** **Geological History, Human History** Humans have always had a capacity to place themselves in time and space. Students develop an understanding of the concept of regions, how regions and places are defined both by land forms and by human interactions and characteristics (cultures, linguistics, etc.). Students understand that they are part of a larger history of humanity and the geological history of the earth.	**4th –6th (ages 9-12)** **Study Three** In the 4th – 6th (ages 9-12) children are able to use their skills to delve more deeply into an academic study. As such, there are two focus studies in the course of a year, not three.

Year One: What Does It Mean To Be Human? K– 1st (Ages 5-7) Continent Study of North and South America in September, October, November

Study One – Membership in Groups / Diversity and Continuity of Living Things - Children understand that everyone holds membership in a variety of groups, beginning with the family. They consider how groups shape our lives, how we, in turn, can shape groups, and they develop a sense of civic and social responsibility. Through this study, children will see themselves as holding membership in a variety of groups from their family, to the classroom, to the larger community. As children explore the diversity and continuity of all living things, they understand that all species belong to groups based on their characteristics; these characteristics are hereditary. All species, including humans, have a cycle of life.

Enduring Understanding	Essential Questions	Standards Tied to Study 1
Social Studies	**Social Studies**	**Social Studies**
People belong to some groups by birth and others by function. Groups or communities can include family, schools, classrooms, cultures, and countries. Governments are structured to address the basic needs of the people in a society.	How are groups formed? Why are groups important? How many members are in a group? What makes a group? Is working in a group better than working alone? What does it take to be a good member of a group? What is the nature of a privilege? What do you have to do to earn or lose a privilege? How should an elected official represent the interests of the people?	Acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively **(C.4.K-3a)** Develop an understanding of the similarities between families now and in the past (daily life and in other times) cultural origins of customs and beliefs around the world **(H.4.K-3a)** Leaders are sometimes chosen by election, and that elected officials are expected to represent the interests of the people who elected them **(C.1.K-3a)** Positions of authority, whether elected, appointed, or familial carry responsibilities and should be respected **(C.1.K-3b)**
Science	**Science**	**Science**
Organisms reproduce, develop, have predictable life cycles, and pass on heritable traits to their offspring. The diversity and changing of life forms over many generations is the result of natural selection, or in which organisms with advantageous traits survive, reproduce, and pass those traits to offspring. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants.	Why do offspring resemble their parents? How are organisms of the same kind different from each other? How does this help them reproduce and survive? How does the understanding and manipulation of genetics, reproduction, development and evolution affect the quality of human life?	The offspring of some plants and animals resemble the parents (i.e., a tree seedling resembles a mature tree). **S7.1A (K-3)** The offspring of some plants and animals do not resemble the parents. Similarities between parents and their offspring become more apparent as their life cycle continues (i.e., caterpillars become butterflies).**S7.1B (K-3)** All plants and animals go through a life cycle of birth, growth, development, reproduction, and death. This cycle is predictable and describable, but differs from organism to organism. **S7.1C (K-3)** Many different kinds of plants and animals live throughout the world. These plants and animals can be grouped according to the characteristics they share. **S7.2A (K-3)**

Year One: What Does It Mean To Be Human? K– 1st (Ages 5-7) Continent Study of North and South America in December to March

Study Two – Fundamental Needs - All species, including humans have basic fundamental needs. Children distinguish wants from needs and that due to scarcity, individuals, families, communities, and societies as a whole, must make choices in their activities and consumption of their goods and services. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.

Enduring Understanding in Study Two	Essential Questions in Study Two	Standards Tied to Study Two
Social Studies	**Social Studies**	**Social Studies**
Maps, globes and other geographics are tools that help us understand the resources available to humans in various regions. A region is a concept rather than a real object on the ground, used to simplify the diversity of places. Because resources are scarce, societies must organize the production, distribution, and allocation of goods and services. Due to scarcity, individuals as producers and consumers, families, communities, and societies as a whole must make choices in their goods and services.	How do maps, globes, and other geographics help us to understand where groups are located and how they meet their needs? Why does *where* matter? How should people use what they have to get what they want? Why can't I have everything I want?	Students will understand the nature and uses of maps, globes, and other geo-graphics. **(G.1.k-3a)** Students will use the concepts of place and region to explain simple patterns of connections between and among places across the country and world. **(G.4.K-3a** Introduced in relation to the use of resources and continent study**)** Students will understand that individuals and families with limited resources undertake a wide variety of activities to satisfy their wants. **E.1AK-3)** Students will identify human wants and the various resources and strategies which have been used to satisfy them over time. **E.3A (K-3)**
Science	**Science**	**Science**
Groups meet their fundamental needs in a variety of ways. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants. As humans seek to meet their needs, they can alter the living and non-living factors within an ecosystem, thereby creating changes to the overall system. People develop new materials as a response to the needs of society and pursuit of knowledge. This development may have risks and benefits to humans and the environment. *Continued*	How do humans have an impact on the diversity and stability of ecosystems? What is a "responsible" use of energy? Are there alternative forms of energy that will serve our needs, or better ways of using traditional forms of energy? What is technology? How has technology helped people solve problems? How do humans have an impact on the diversity and stability of ecosystems as they seek to meet their needs? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process? *Continued*	People use the variety of plants and animals found throughout the world for food, clothing, and shelter (e.g., silk for clothing, wood for building shelters). **S7.3A(K-3)** The ability of an organism (People) to meet its needs for survival is dependent upon its environment. Manipulation of the environment can positively or negatively affect the well being of various organisms that live there. **S6.4C (K-3)** Humans use devices and specialized equipment to ensure safety and to improve their quality of life (e.g., goggles, glasses, hearing aids, and wheelchairs). **S6.4B (K-3)** People have invented new technologies to solve problems. **S1.2A(K-3)** *Continued*

Year One: What Does It Mean To Be Human? K– 1st (Ages 5-7) Continent Study of North and South America from December to March

Enduring Understanding in Study Two	Essential Questions in Study Two	Standards Tied to Study Two
Science	**Science**	**Science**
People use a variety of resources to meet the basic and specific needs of life. Some of these resources cannot be replaced. Others can be replenished or exist in such vast quantities they are in no danger of becoming depleted. Humans use technology to solve problems and meet their needs.	Are there alternative sources of energy to meet human needs? What can we do to benefit the health of humans and other organisms?	Technology has created new materials that can help people solve problems. **S.2.4B(K-3)** Many natural resources are limited. The amount available can be made to last longer by decreasing the use of some resources or by reusing or recycling certain materials. **S8.3A(K-3)** The properties of materials influence their use. Some materials are more suitable for making a particular product or device. **S2.4A (K-3)** Moving air, moving water, and sunlight contain energy that can be put to our use. **S3.4A (k-3)**

Year One: What Does It Mean To Be Human? K– 1st (Ages 5-7) Continent Study of North and South America in April, May, June

Study Three – **Place in Time and Space-** Humans have always had a capacity to place themselves in time and space. Students explore the intergenerational connections of the various groups they belong to. They learn about the history and traditions of their own cultures. They gain perspective about where they are located spatially on the planet and in the universe.

Enduring Understandings in Study Three	Essential Questions in Study Three	Standards Tied to Study Three
Social Studies	**Social Studies**	**Social Studies**
History is often messy, yet a historian must logically organize events, recognize patterns and trends, explain cause and effect, make inferences, and draw conclusions from those sources which are available at the time. The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Competing chronologies can both be accurate, yet may not be equally relevant to the specific topic at hand. Understanding past processes and contributions is essential in building scientific knowledge. *Continued*	Why does *when* matter? To what extent does one event lead to another event? What can I learn about the past from studying artifacts and documents? What can't I learn? How do artifacts and documents influence how history is written? Is this source credible? What questions should I ask before I use this source? How could there be different explanations of the same event in history? What role do technological advances play in history? Why does where matter? *Continued*	Use artifacts and documents to gather information about the past **(H.2.K-3a)** Understand that historical accounts are constructed by drawing logical inferences from artifacts and documents **(H.3.K-3a)** Utilize clocks, calendars, schedules and written records or locate events in time **(H.1.K-3a)** Students will understand the nature and uses of maps, globes, and other geo-graphics. **(G.1.k-3a)** Students will use the concepts of place and region to explain simple patterns of connections between and among places across the country and the world. **(G.4.K-3a Introduced)** *Continued*

Year One: What Does It Mean To Be Human? K– 1st (Ages 5-7) Continent Study of North and South America in April, May, June

Enduring Understandings in Study Three	Essential Questions in Study Three	Standards Tied to Study Three
Social Studies	**Social Studies**	**Social Studies**
Mental maps summarize differences and similarities about places. These differences and similarities lead to conflict or cooperation and the exchange of goods and ideas between people. A region is a concept rather than a real object on the ground, used to simplify the diversity of places. Regions must have boundaries to exist, yet there are advantages and disadvantages associated with any real or abstract feature used to draw a boundary.	To what extent do the differences between flat maps and globes affect understanding of places in the world and their relationship to each other? Why are there different kinds of maps? How can they be "read" to discover the nature and contents of the real world? Why might places differ from regions? How can regions be used to simplify an understanding of place diversity? How might differences and similarities among regions result in connections between them? Why is a place founded where it is? Why might these reasons change?	Use artifacts and documents to gather information about the past **(H.2.K-3a)** Understanding that historical accounts are constructed by drawing logical inferences from artifacts and documents **(H.3.K-3a)** Utilize clocks, calendars, schedules and written records or locate events in time **(H.1.K-3a)** Students will understand the nature and uses of maps, globes, and other geo-graphics. **(G.1.k-3a)** Students will use the concepts of place and region to explain simple patterns of connections between and among places across the country and the world. **(G.4.K-3a Introduced)**
Science	**Science**	**Science**
There are observable, predictable patterns of movement in the Sun, Earth, and Moon system that account for day/night. Technology expands our knowledge of the Earth, Moon, and Sun System.	How have past scientific contributions influenced current scientific understanding of the world? What do we mean in science when we say that we stand on the shoulders of giants? What predictable, observable patterns occur as a result of the interaction between the Earth, Moon, and Sun? How has technology expanded our knowledge of the Earth, Moon, and Sun System?	The shape of the Earth is similar to a sphere. **S4.1A (K-3)** From Earth many objects may be seen in the sky including the Sun, the Moon, stars, and man-made objects. **S4.1B (K-3)** The Sun and Moon appear to move slowly across the sky. **S4.1C (K-3)** The pattern of day and night repeats every 24 hours. The Sun can only be seen in the daytime. **S4.1AD (K-3)** The Moon can be observed sometimes at night and sometimes during the day. **S4.1E (K-3)** The appearance of the Moon changes in a cycle that takes about a month. **S4.1F (K-3)** Binoculars and telescopes allow people to observe objects in the sky from Earth. **S.4.3A(K-3)** Technology expands the range of human senses. **S6.4A (K-3)**

Instructional Strategies and Performance Projects/Assessments
Year One K– 1st (Ages 5-7) - What Does it Mean to Be Human?

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the three studies of *What Does it Mean to Be Human*? These lessons are shared each year with various levels of detail according to the children's development. Particular emphasis should be given to the parts of the story that reinforce the content standards being developed in the K-1st (Ages 5-7)study of *What Does it Mean to Be Human.* The same lessons will be shared in the 2nd—3rd (Ages 7-9) program expanding on concepts introduced at the K-1st (Ages 5-7)level. (See page 5 for full details of Montessori Great Lessons)

First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Language
The Fifth Great Lesson: The Story of Numbers

Continent studies

Montessori classrooms focus on a study of each continent and the various cultures and geography of those continents as children discover what it means to be human, how geography impacts how cultures meet their human needs, and how the various cultures interact. While presented separately in this document, the concepts of what it means to be human and the Delaware Content Standards are closely interwoven throughout the year through the continent studies. These Integrated units developed through the **Understanding by Design (UbD) process** (see planning sheet page 30). Possible instructional materials and strategies teachers may use are listed below.

Montessori lessons and materials related to:

- Responsive Classroom lessons and activities to build community and teach social skills, responsibilities, rights and privileges
- Create fair classroom rules
- Timelines of Individual lives
- Set up the process to carry out a mock election within the classroom
- Working in Groups
- Fundamental needs of man and how various cultures meet these needs (food, clothing, shelter, water, communication, spirituality)
- Geography maps, globes, landform models
- Cultural traditions and celebrations
- Set up the process to carry out a mock election within the classroom
- Hands on materials developing concepts of time, quantity, linear measurement, volume, weight, and money
- Specific lessons on the earth, sun and moon:
  - ◊ Describe the shape of the Earth as being like a sphere and describe how a globe models this shape.
  - ◊ Name and identify objects that can be observed in the sky including the Sun, Moon, and stars and man-made objects such as airplanes.
  - ◊ Describe the repeating cyclic pattern of day and night and include in this description that we can see the Sun only during the daytime.
  - ◊ List objects that can be observed in the sky in the daytime and objects that can be observed in the sky at nighttime. Discuss which objects are on which lists (e.g., the Moon can be observed sometimes in the day and sometimes at night).
  - ◊ Safely observe the location of the Sun at the same time in the morning, noon, and afternoon over several days. Describe the Sun's movement across the sky over the course of the day.
  - ◊ Observe the Moon in the day sky over several months. Draw a sequence of pictures that shows the repeating cyclic pattern of the Moon.
  - ◊ Use simple models to demonstrate how Earth's rotation causes day and night.

Science Kits

Instructional Strategies and Performance Projects/Assessments Year One K– 1st (Ages 5-7) - What Does it Mean to Be Human?

As related to the UBD Units, teachers will utilize the following science kits to address the science standards across the two year cycle of the 5-7 program.

- Trees—Exploring how trees are alive and different from non-living things, their basic needs, and functions of structures.
- Five Senses—Using the five senses to observe and describe the world
- Wood and Paper-Examining the properties of wood and paper
- Weather and Me-Weather patterns and their influence on living things
- Solids and Liquids-Comparing/Testing the Properties of Solids and Liquids
- Organisms-Requirements for living things to survive in their habitats

Delaware Recommended Curriculum units that might be used in the studies.
Participating in a Group (Word) (PDF) *December 15, 2009*
Schedules (Word) (PDF)
Thinking About Maps and Globes (Word)

Classroom projects leading to the performance assessments as listed below:

- Using a world migration map, identify migration patterns around the world determining Americas roots, while tracking students' family migration path to the US or within the US
- Compare/contrast the migration paths of student's families to the migration patterns on the world map.
- Through a family interview, identify reasons ancestors migrated to the U.S. and traditions they brought with them to their new home/country.
- Photojournalism project – students will photograph people and places that represent cultural markers in our community.
- Create a dramatic enactment depicting the migratory path of a selected species
- Create a recycling and composting program for the classroom
- Create a structured market place wherein students will buy and sell chosen materials with all profits donated to a charity to be determined by the group's consensus

Resources

Montessori Albums—Resources obtained through MACTE approved Montessori training courses
http://missbarbara.net/ - Web sites related to each area of the Montessori Great Lessons and the Delaware Content Standards.
http://www.thinkfinity.org/
http://education.nationalgeographic.com/education/
http://sciencenetlinks.com/
http://www.econedlink.org/
http://historyexplorer.americanhistory.si.edu/
www.nsta.org
http://www.loc.gov/index.html
PALS is an on-line, standards-based, continually updated resource bank of science performance assessment tasks indexed via the National Science Education Standards (NSES) and various other standards frameworks.

Year Two How Does the World Work?

Continent Study – Africa and Australia

Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry, and research. Thinking like a scientist or a geographer, a historian or a social scientist, they use methods of scientific inquiry and research tools to learn about the natural and human world around them within the context of continent studies. Each program year is comprised of three time-periods or studies which spiral, building complexity throughout the subsequent grade levels. These studies are laid out in this document by use of color coding for each study.

Study One - September, October, November

K-1st (Ages 5-7)
Man's Impact on Life Cycles and Systems

The natural world works in a series of cycles and systems. Children understand that human life has a beginning, a time of growth, and an ending. They acquire a basic knowledge of the body's needs and its functions and adopt personal habits that promote wellness. Extending this concept, children learn that species within an ecosystem have unique structures that allow them to survive in that ecosystem. Children will see the cycle of life around them in nature. This understanding extends to an understanding that all organisms are all connected as a part of the larger ecosystem. Children develop an understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. Beginning with their families and classrooms, children understand that people have a civic and global responsibility to use the earth's resources wisely.

2nd-3rd (Ages 7-9)
Life Cycles and Systems/ Historian's perspective

The natural world works in a series of cycles and systems. This understanding extends to an understanding that we are all connected as a part of the larger ecosystem. This ecosystem depends on a system of consumers and producers. Species within an ecosystem have unique structures that allow them to survive in that ecosystem. As one part of the ecosystem changes, other parts will be affected. Children develop an understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. The perspective of the historian can help us to understand how man has impacted the regions around them and how the resulting changes in ecosystems have impacted communities.

4th –6th (Ages 9-12)
Energy exchanges and Systems / The Historical Perspective Science

Children discover that the flow of energy drives processes of change in all biological, chemical, and physical systems. In this study children learn that energy stored in a variety of systems can be transformed into their energy forms, which influence many facets of daily life. People use a variety of resources to meet the basic energy needs of life. Some of these resources cannot be replaced and others exist in vast quantities. The structure of materials influences their physical properties, chemical reactivity, and use. The exchange of energy can change matter from one form to another making a material more suitable for a specific purpose. Many scientists have contributed to our understandings of the biological, chemical and physical nature of energy. Historians contribute to our understanding of how these scientists worked, their culture, society's responses to their work, and the resources they had for their work.

Study Two—December, January, February, March

K-1st (Ages 5-7)
Earth Systems and Human Interactions
Weather/Soils

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. These changes also impact human groups and their survival. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from geological evidence.

2nd-3rd (Ages 7-9)
Producing and Consuming

All people engage in making and using things. Children recognize the value and dignity of work. They learn that human economic systems serve to provide a method for people to distribute goods and services to meet their wants and needs. They understand that due to scarcity, individuals, families, and communities and societies as a whole must make choices in their activities and consumption of their goods and services. Life for all of us involves producing and consuming. Knowledge of materials and their properties helps man to match materials to products for consumption.

4th –6th (ages 9-12)
Producing and Consuming

Production and consumption occurs as a human interaction among humans and as a natural interaction in ecosystems. All people engage in making and using things. Children learn the various ways that different cultures produce goods, what they value for production, how they structure economic systems that support production and consumption, and how cultures use the regional resources and trade globally to meet various needs of different societies. They understand that due to scarcity, communities and societies must make choices in their activities and consumption of goods and services. Various aspects of science contribute to decisions about production and consumption. The ecosystem is dependent on the concept of producers and consumers. When man utilizes the natural resources around him, he may impact the balance of the ecosystem impacting his long-term ability to meet man's needs. The production and consumption of energy impacts the ability of a society to produce goods and services to meet their needs. Knowledge of materials and their properties helps man to match materials to products.

Study Three — April, May, June

K-1st (Ages 5-7)
The Flow of Energy and Human Needs

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. In this study, children understand that energy takes many forms. People use energy to do work. There are various sources of energy that people can harness to use. Some are renewable sources and others will be depleted at some point. People also seek to understand materials and their properties. The transfer of energy can change materials into different forms (water, ice, steam). Different materials are best suited to various uses by man because of their properties.

2nd-3rd (Ages 7-9)
Earth's Energy and Geological Systems

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from geological evidence. These changes also impact human groups and the energy and mineral resources in various regions available to humans to meet their needs.

4th –6th (ages 9-12)
Study Three

In the 4th – 6th (ages 9-12) children are able to use their skills to delve more deeply into an academic study. As such, there are two focus studies in the course of a year not three.

Year Two: How Does the World Work? K-1st (Ages 5-7) Continent Study – Africa and Australia: September, October, November

Study One - Man's Impact on Life Cycles and Systems

The natural world works in a series of cycles and systems. Children understand that human life has a beginning, a time of growth, and an ending. They acquire a basic knowledge of the body's needs and its functions, and adopt personal habits that promote wellness. Extending this concept, children learn that species within an ecosystem have unique structures that allow them to survive in that ecosystem. Children will see the cycle of life around them, in nature. This understanding extends to an understanding that all organisms are all connected as a part of the larger ecosystem. Children develop and understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. Beginning with their families and classrooms, children understand that people have a civic and global responsibility to use the earth's resources wisely.

Enduring Understanding in Study One	Essential Questions in Study One	Standards Tied to Study One
Social Studies	**Social Studies**	**Social Studies**
Effective citizens are committed to protecting rights for themselves, other citizens, and future generations, by upholding their civic responsibilities and are aware of the potential consequences of inaction. Distinctions between a citizen's rights, responsibilities, and privileges help to define the requirements and limits of personal freedom.	How do one's civic responsibilities relate to our use of natural resources and our interactions with the natural world? What rights, responsibilities, and privileges do humans have to use the world's resources wisely? Why is it important that groups work together to use resources well?	Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively. **C4AK-3**
Science	**Science**	Science
Life Processes Living systems demonstrate the complementary nature of structure and function. All organisms transfer matter and convert energy from one form to another. Both matter and energy are necessary to build and maintain structures within the organism. Organisms respond to internal and external cues which allow them to survive. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation. Organisms and their environments are interconnected. Changes in one part of the system will affect other parts of the system. **Ecology** Organisms and their environments are interconnected. Matter needed to sustain life is continually recycled among and between organisms and the environment. Energy from the sun flows irreversibly through ecosystems and is conserved as organisms use and transform it.	**Life Processes** What do all living things need? How does structure relate to function in living systems from the cellular to the organismic level? How is matter transferred and energy transferred/ transformed in living systems? How do responses to internal and external cues aid in an organism's survival? What can we do to benefit the health of humans and other organisms? **Ecology** How can change in one part of an ecosystem affect change in other parts of the ecosystem? How do matter and energy link organisms to each other and their environments? Why is sunlight essential to life on earth? How do humans have an impact on the diversity and stability of ecosystems?	**Life Processes** Plants & animals are similar to, and different from, each other in observable structures & behavior. These characteristics distinguish them from each other and from nonliving things.**S6.1A (K-3)** Each plant or animal has different structures that serve different functions in growth, survival & reproduction. **S6.1B(K-3)** In animals the skeletal-muscular system provides structure, support and enables movement. **S6.1C(K-3)** Plants and animals are living things. All living things have basic needs for survival including air, water, food (nutrients), space, shelter, and light. **S6.2A (K-3)** Senses help humans and other organisms detect internal and external cues. **S6.3A (K-3)** **Ecology** Interconnectedness exists among the living and nonliving parts of an environment. This interconnectedness can be observed by the changes made by plants and animals in their environment. **S8.1A(K-3)** Plants & animals need enough space & resources to survive. Overcrowding leads to an increased need for resources. **S8.1B(K-3)** All animals depend on plants. Some animals eat plants for food, others eat animals that have eaten plants. **S8.2A(K-3)** Plants need energy from the Sun, water and nutrients for growth and survival. **S8.2A(4-5)**

Year Two: How Does the World Work? K-1st (Ages 5-7) Continent Study – Africa and Australia: December, January, February, March

Study Two: Earth Systems and Human Interactions – Weather/Soils

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. These changes also impact human groups and their survival. Some of the changes can be measured on a human time scale, but others occur so slowly, that they must be inferred from Geological evidence.

Enduring Understanding in Study Two	Essential Questions in Study Two	Standards Tied to Study Two
Social Studies	**Social Studies**	**Social Studies**
The ways mapped patterns are analyzed and used help solve societal problems. (apply to weather) The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment.	Why are there different types of maps? How can they be "read" to discover the nature and contents of the real world? (apply to weather and soils) To what extent do differences between flat maps and globes affect understanding of places in the world and their relationship to each other? (apply to weather and soils) To what extent do differences in climate and landforms across the earth affect how and where people live?	Students will understand the nature and uses of maps, globes, and other geographics. Students will distinguish different types of climate and landforms and explain why they occur **G2A(K-3)**
Science	**Science**	**Science**
Earth's Systems Earth's components form systems. These systems continually interact at different rates of time, affecting the Earth locally and globally. Technology enables us to better understand Earth's systems. It also allows us to analyze the impact of human activities on Earth's systems and the impact of Earth's systems on human activity. Earth's systems can be broken down into individual components which have observable measurable properties.	**Earth's Systems** How do changes in one part of the Earth system affect other parts of the system? In what ways can Earth processes be explained as interactions among spheres? How does technology extend human senses and understanding? How does understanding the properties of Earth materials and the physical laws that govern their behavior lead to prediction of Earth events?	**Earth's Systems** Weather influences plants, animals and human activity. **S5.2A (K-3)** People who work or play outdoors often dress and base their activities on the speed of the wind and the temperature of the air. **S5.2B (K-3)** Water from rain, lakes, and underground is needed by plants, animals and people for their everyday activities. **S5.2C (K-3).** Clouds are shaped by winds and are made of small water droplets or ice crystals. Cloud shapes can be used to help forecast weather. **S5.2D (K-3)** Weather can be observed, measured and described through the use of simple tools such as a thermometer, rain gauge and wind vane. **S5.3B (K-3)** Components of Earth's system include minerals, rocks, soil, water and air. These materials can be observed, sorted and/or classified based on their physical properties. **S5.1A (K-3)** Water can exist as a solid, liquid or gas and in different forms such as rain, snow and ice. **S5.1B (K-3)** Sand, clay and humus have distinct physical properties and are components of soils. **S5.1C (K-3)** A soil's composition varies from environment to environment. **S5.1D (K-3)**

Year Two: How Does the World Work? K-1st (Ages 5-7) Continent Study – Africa and Australia: April to June

Study Three—The Flow of Energy and Human Needs - Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. In this study, children understand that energy takes many forms. People use energy to do work. There are various sources of energy that people can harness to use. Some are renewable sources and others will be depleted at some point. People also seek to understand materials and their properties. The transfer of energy can change materials into different forms (water, ice, steam). Different materials are best suited to various uses by man because of their properties.

Enduring Understanding in Study Three	Essential Questions in Study Three	Standards Tied to Study Three
Social Studies	**Social Studies**	**Social Studies**
Effective citizens are committed to protecting rights for themselves, other citizens, and future generations, by upholding their civic responsibilities and are aware of the potential consequences of inaction. Distinctions between a citizen's rights, responsibilities, and privileges help to define the requirements and limits of personal freedom.	How do one's civic responsibilities relate to our use of natural resources and our interactions with the natural world? What rights, responsibilities, and privileges do humans have to use the world's resources wisely? Why is it important that groups work together to use resources well?	K-3a: Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively. **C4AK-3**
Science	**Science**	**Science**
Energy Energy takes many forms. These forms can be grouped into types of energy that are associated with the motion of mass (kinetic energy), and types of energy associated with the position of mass and with energy fields (potential energy). Changes take place because of the transfer of energy. Energy is transferred to matter through the action of forces. Different forces are responsible for the transfer of the different forms of energy. Energy readily transforms from one form to another, but these transformations are not always reversible. The details of these transformations depend upon the initial form of the energy and the properties of the materials involved. **Materials and Their Properties** The structures of materials determine their properties. The properties of materials influence their use. Some materials are more suitable for making a particular product or device.	**Energy** How do we know that things have energy? How can energy be transferred from one material to another? What happens to a material when energy is transferred to it? **Materials and Their Properties** What determines if new materials need to be developed to meet group needs? How do the properties of materials determine their use? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process?	**Energy** The Sun is a source of energy that lights and warms the Earth. **S3.1A (K-3)** Heat energy is a form of energy that makes things warmer. e.g. heat energy can come from burning wood. **S3.1C (K-3)** Objects that move (e.g.., moving air, moving water) have energy because of their motion. **S3.1B (K-3)** The position of an object gives its location relative to where you are (e.g., above, below, in front, or behind). The motion of an object describes how its position is changing. Pushing or pulling on an object can change its position or motion. **S3.2A (K-3)** Transferring heat energy to an object will make it feel warmer by raising its temperature and it may cause a change in the object's physical properties. **S3.2D (K-3)** **Materials and Their Properties** Materials can be described and classified according to the following physical properties: size, shape, mass, texture, color, and material composition. Students can observe materials' physical properties by using tools that include rulers, balances, thermometers and hand lenses. **S.2 K-3A** Materials exist in one of three states – solid, liquid, or gas. Solids and liquids have easily observable properties and may change from one form to the other. **S.1 K-3B**

Instructional Strategies and Performance Projects/Assessments
Year Two K– 1st (Ages 5-7) - How Does the World Work?

Montessori Great Lessons

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First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Language
The Fifth Great Lesson: The Story of Numbers

Continent studies

Montessori classrooms focus on a study of each continent and the various cultures and geography of those continents as children discover what it means to be human, how geography impacts the way cultures meet their human needs, and how the various cultures interact. While presented separately in this document, the concepts of what it means to be human and the Delaware Content Standards are closely interwoven throughout the year through the continent studies. These Integrated units developed through the **Understanding by Design (UbD) process** (see page 30). Possible Instructional materials and strategies teachers may use are listed below.

Montessori lessons and materials related to:

Living things: Botany and Zoology

- Life cycle of plants and animals
- Parts of a plant/animal.
- Classifying
- Comparing and contrasting the needs
- Fundamental needs of living things

My connection to the natural world: Science kits on Organisms and/or Solids and liquids:

- Ecology
- Botany
- Zoology
- Biomes
- Geography

Human needs and habits:

- Fundamental needs of humans lessons and activities
- Ecology
- Food chains/Ecosystem
- Nutrition

Civics, History, Geography:

- Responsive Classroom lessons and activities to build community and teach social skills, responsibilities, rights and privileges

Instructional Strategies and Performance Projects/Assessments Year Two K– 1st (Ages 5-7) - How Does the World Work?

- Create fair classroom rules
- Timelines of Individual lives
- Set up the process to carry out a mock election within the classroom
- Working in Groups
- Fundamental needs of man and how various cultures meet these needs (food, clothing, shelter, water, communication, spirituality)
- Geography maps, globes, landform models
- Cultural traditions and celebrations
- Set up the process to carry out a mock election within the classroom

Energy Lessons focusing on:

- Recognizing and identifying that the Sun warms and lights the Earth.
- Recognizing and identifying that air surrounds us and that moving air (wind) has energy that can make things move.
- Recognizing that heat energy can come from the burning of wood.
- Observing that heat energy makes things warmer.
- Observing that objects move in different ways such as fast, slow, sideways, zigzag, and swaying back and forth.
- Observing how the air makes the trees and other objects move. Describe how a fast moving wind can make objects move more than a gentle breeze (i.e., trees swaying).
- Observing the evidence of the force of air pushing on objects and materials such as pinwheels and kites. Compare how the direction and speed (fast, slow) of the moving air affects the motion of the objects.
- Observing and measure the temperature of hot and cold water. Investigate what happens when hot and cold water are mixed. Record data on a graph and use the data to summarize the results.
- Demonstrating that the position of an object can be above or below, in front of or behind, or to the left or right of another object.
- Using the sense of touch, recognize that objects placed in direct sunlight feel warmer than objects in the shade.
- Investigating what happens to the temperature of an object when it is placed in direct sunlight. Record data and conclude that the energy in the sunlight was changed into heat energy in the object.
- Comparing what happens when sunlight strikes dark and light colored objects.

Science Kits

As related to the UBD Units, teachers will utilize the following science kits to address the science standards across the two year cycle of the 5-7 program.

- Trees—Exploring how trees are alive and different from non-living things, their basic needs, and functions of structures.
- Five Senses—Using the five senses to observe and describe the world
- Wood and Paper-Examining the properties of wood and paper
- Weather and Me-Weather patterns and their influence on living things
- Solids and Liquids-Comparing/Testing the Properties of Solids and Liquids

Organisms-Requirements for living things to survive in their habitats

Instructional Strategies and Performance Projects/Assessments Year Two K– 1st (Ages 5-7) - How Does the World Work?

Delaware Recommended Curriculum units that might be used in the studies.
Participating in a Group (Word) (PDF) *December 15, 2009*
Schedules (Word) (PDF)
Thinking About Maps and Globes (Word)

Classroom projects leading to the performance assessments as listed below: Through reflective journals, oral responses, and illustrations students will:

- Describe the life cycles of common plants and animals.
- Identify what living things need to survive, comparing and contrasting by comparing and contrasting the differences between living and non-living.
- Design an experiment demonstrating the fundamental needs of a plant or animal.
- Observe and journalize a plant or animal throughout a life cycle.
- Create a model of a life cycle
- Science experiments
- Trace, color and label countries using continent puzzle maps
- Trace continent puzzle map, use World Atlas (with guidance) to identify, color and label the biomes of the continent of study
- Create 3-D representation of a selected biome
- Through reflective journals, oral responses, and illustrations students will compare and contrast the differences of basic needs between humans and other life forms.
- Create a recycling and composting program for the classroom
- Create a miniature habitat
- Create a 3-D representation of a life cycle

Resources

Montessori Albums—Resources obtained through MACTE approved Montessori training courses
http://missbarbara.net/ - Web sites related to each area of the Montessori Great Lessons and the Delaware Content Standards.
http://www.thinkfinity.org/
http://education.nationalgeographic.com/education/
http://sciencenetlinks.com/
http://www.econedlink.org/
http://historyexplorer.americanhistory.si.edu/
www.nsta.org
http://www.loc.gov/index.html
PALS is an on-line, standards-based, continually updated resource bank of science performance assessment tasks indexed via the National Science Education Standards (NSES) and various other standards frameworks.

Sample Understanding by Design (UbD) Template: will be used by teachers to develop units that support the integration of the Montessori Curriculum across subject areas, to tie to the Common Core Standards, and to focus on the big ideas, essential questions, and transfer skills. The following was written for use in the K-1 (ages 5-7) classroom.

Title: **Investigating Biomes**	Grade: **K-1 (ages 5-7)**
Topic: **Connections to Nature**	Designer:

Stage 1—Desired Results

Established Goals
All children recognize that everyone is connect to the natural world. They learn about the scientific method and in the process increase their understanding of the world around them.

Transfer Goals
Students will know the basic steps of scientific inquiry and will begin to understand how we are connected to the natural world. Children will develop a respect and reverence for the beauty and wonder of the world.

Enduring Understandings:
Students will understand that…
Everything is connected to the natural world.
They can investigate the world around them by employing scientific inquiry and discovery.
The living world is always in a state of change.
Living creatures are interdependent.

Essential Questions:
How do living things adapt to or change the world around them?
How are living things interdependent?
Why do humans investigate their world?
How would you investigate?

Knowledge: *Students will know…*
The location of Asia on the globe or world map.
The location of each of the biomes in Asia.
Key characteristics of the biomes (climate, geography, some plants & animals, people that live there).

Skills: *Students will be able to…*
Locate Asia on a globe or map.
Locate a familiar biome (mountains, desert, tropical forest, grassland, temperate forest) on a map of the continent.
Describe (include weather, physical characteristics, location) a familiar biome.
Name 2-3 plants/animals/people that inhabit the biome.
Use research skills, books/or internet with teacher guidance & support, to find out about a particular animals in a selected Asiatic biome.

Stage 2 - Assessment Evidence

Performance Tasks: *Summary in GRASPS form*
Trace, label, color countries using the continent puzzle maps of Asia.
Trace continent puzzle map, use the world atlas (with guidance) to identify, color, label the biomes of Asia.
Using the Waseca Biomes Cards, classify/categorize the animals, plants and people of the continent by biome.
Whole class project: Create a 3-D representation of a selected biome.

Key Criteria:
Utilize the scientific methodology.
Oral explanation of observable changes.
Identify cause and effect of natural and man-made events.

Other Evidence:
Oral responses
Illustrations

The 2nd –3rd (ages7-9) Cultural Curriculum
(Social Studies/Science)

This document is the core of the curriculum plan for the 2nd –3rd (ages7-9) child. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress

Social Studies and Science—2nd—3rd (Ages 7-9)

Transfer Knowledge

Transfer Skills in the Integrated Social Studies/ Science curriculum known as the Montessori Cultural curriculum are not based on the transfer of a specific body of knowledge but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Research Skills	Self-expression
Unity of Human Beings Students understand the similarities and differences of cultures across the world; that people interact with the natural world in distinct ways that produce cultural uniqueness; that people, places, and environments are integrated; that life involves producing and consuming. **Unity of all Living Things on Earth** Students will show respect for the beauty and wonder of nature. They develop an understanding of how, through science, we learn how nature works. They understand that all people use natural resources to meet a variety of human needs. *Continued* This use of resources defines many cross cultural human interac-	**Students will:** Understand the role the human potentials play in both their school community and their everyday lives **Character** – Students are trustworthy, compassionate, and demonstrate integrity. **Leadership** – Students combine vision, ethics, and courage to empower others to make a difference in the community. **Thinking Skills** – Students develop flexibility, perseverance, curiosity, imagination, inventiveness, wonder, and reflections on process and product supporting lifelong and collaborative learning in order to address real life challenges. *Continued* **Life Management** – Students develop self-awareness so that in	**Students will:** Understand what makes a question which leads to inquiry and investigation. Plan investigations to address a question or problem. Use mathematics, reading, writing, and technology when conducting an investigation and communicating the results. Synthesize information from various resources and experiences to develop inquiries about the world around them. Determine ways to gather data and use various tools (experiments, surveys, logs, journals, etc.). Understand what constitutes evidence. *Continued* Understand when you have enough evidence.	**Students will:** Discover and express ideas, feelings, beliefs and values. Reflect on how these ideas effect the way they interact with the world. Acquire the skills necessary to successfully participate in groups, which includes defining the objective, dividing responsibilities, and working cooperatively. Demonstrate cooperation, assertion, responsibility, empathy and self-control when communicating with others. Utilize and explore their own creativity. Learn to appreciate the aesthetic. *Continued* Use various technology tools to gather, organize, and communi-

Social Studies and Science—2nd—3rd (Ages 7-9)

Transfer Knowledge

Transfer Skills in the Integrated Social Studies/ Science curriculum known as the Montessori Cultural curriculum are not based on the transfer of a specific body of knowledge but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Research Skills	Self-expression
tions. **Unity of the Universe Itself** Students develop an understanding of their relationship and place in the development of the universe; how the earth has changed over time through physical, chemical, and geological processes.	the long run they make responsible, healthy and balanced life work choices. **Creative and Artistic** – Students discover and develop creative gifts so that in the long run they will be able to express themselves creatively and artistically, recognize and respect creativity in others, utilize the creativity of others, and preserve flexibility of thought and open-mindedness to look at and meet challenges. **Service and Responsibility** – Students learn the value of service and responsibility so that in the long run they will be able to demonstrate empathy, compassion,, social responsibility, and appreciation for others and the world around them.	Interpret evidence and present logical inferences and conclusions to others from the evidence.	cate with others. Use various visual print and artistic mediums to communicate with others. Adapt presentation style and speech for the audience. Present claims and findings in a logically sequenced way, developing concepts to support a position.

Standards Embedded Across Both Years of the 2nd-3rd (Ages 7-9) Program

Enduring Understanding Embedded in all three studies	Essential Questions Embedded in all three studies	Standards Embedded in all Three Studies
Social Studies	**Social Studies**	**Social Studies**
The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Mental maps summarize differences and similarities about places. Mental maps change as the scale moves from local to global; we know more about our home area than more distant places; and these differences affect how we feel and behave towards places that are distant versus those that are close. Effective participation in groups leads to effective Democratic governments.	Why is *when* an event happens important? How can words, models, and graphics help us learn about the world? What does it mean to participate effectively in a group? Why does *where* matter? Why does *when* matter?	Students will use clocks, calendars, schedules, and written records to record or locate events in time **(H.1.K-3A).** Students will understand the nature and uses of maps, globes, and other geo-graphics. **(G.1.k-3a)** Students will use artifacts and documents to gather information about groups and their histories **(H. 2.k-3A)** Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively **(C.4.K-3a)**
Science as Inquiry	**Science as Inquiry**	**Science as Inquiry**
Scientific inquiry is a method by which humans seek to understand the natural world. Scientific inquiry involves asking scientifically-oriented questions, collecting evidence, forming explanations, connecting explanations to scientific knowledge and theory, and communicating and justifying the explanation. In a science investigation, a fair test is one in which all of the conditions are kept constant except the one condition being investigated. The purpose of accurate observations and data collection is to provide evidence. Scientists use tools to enhance their senses in order to obtain more evidence. Scientists use observations from investigations and knowledge that is already known to develop an explanation. The purpose of communicating with others is to share evidence and conclusions. Scientists communicate the results of their investigations to others. The use of mathematics, reading, writing, and technology are important in conducting scientific inquiries. The development of technology and advancement in science influence each other and drive each other forward.	What makes a question scientific? What constitutes evidence? When do you know you have enough evidence? Why is it necessary to justify and communicate an explanation?	Generate questions and predictions using observations and exploration about the natural world. **S1.1A (K-3)** Generate and follow simple plans using systematic observations to explore questions and predictions **S1.1B(K-3)** Collect data using observations, simple tools and equipment. Record data in tables, charts, and bar graphs. Compare data with others to examine and question results. **S1.1C (K-3)** Construct a simple explanation by analyzing observational data. Revise the explanation when given new evidence or information gained from other resources or from further investigation. **S1.1D (K-3)** Share simple plans, data, and explanations with an audience and justify the results using the evidence from the investigation. **S1.1E (K-3)** Use mathematics, reading, writing, and technology when conducting an investigation and communicating the results. **S1.1F (K-3)** Tools are useful in science to help gather data for observations and measurements and provide a safe means of conducting an investigation. **S.1.2B(K-3)** People from all parts of the world practice science and make many important scientific contributions. **S.1.3A(K-3)**

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9)
Continent Study of Europe & Antarctica

Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry and research. Thinking like a scientist or a geographer, historian or social scientist, they use methods of scientific inquiry and research tools to learn about the natural and human world around them within the context of continent studies. Each program year is comprised of three time-periods or studies which spiral, building complexity throughout the subsequent grade levels. These studies are laid out across the curriculum by use of color coding for each study.

Study One - September, October, November

K-1st (Ages 5-7) Membership in Groups/ Diversity and Continuity of Living Things	2nd-3rd (Ages 7-9) Responsibility to Group Membership / Diversity and Continuity of Living Things	4th –6th (Ages 9-12) The Purpose of Governments and Scientific Advances
Children understand that everyone holds membership in a variety of groups, beginning with the family. They consider how groups shape our lives, how we, in turn, can shape groups, and they develop a sense of civic and social responsibility. Through this study, children will see themselves as holding membership in a variety of groups from their family, to the classroom, to the larger community. As children explore the diversity and continuity of all living things, they understand that all species belong to groups based on their characteristics; these characteristics are hereditary. All species, including humans, have a cycle of life.	Humans have established systems that structure their participation in groups. Children learn the various ways that governments are structured, develop an understanding of the principles of a representative democracy and the responsibilities they have a citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond and to understand that group membership means having responsibilities, as well as rights. Building on the study of the 5-7 program, children continue to explore the diversity and continuity of living things and the relationship of humans to the natural world. They understand how humans as organisms are similar and different from other organisms and that each has a place in the natural world.	This study builds on the understandings of group functioning, rights and responsibilities from the K-1st (ages 5-7) and the 2nd-3rd (ages7-9) programs. The study focuses specifically on civic responsibility. Children learn the various ways that governments are structured, develop an understanding of the principles of a representative democracy and the responsibilities they have a citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond and to understand that citizenship in groups and the U.S. means having responsibilities, as well as rights. Children explore various scientific advances, laws that have been instituted related to scientific knowledge, and how government influences the uses of our natural resources.

Study Two—December, January, February, March		
K-1st (Ages 5-7) **Fundamental Needs** All species, including humans have basic fundamental needs. Children distinguish wants from needs and that due to scarcity, individuals, families, communities, and societies as a whole, must make choices in their activities and consumption of their goods and services. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.	**2nd-3rd (Ages 7-9)** **Economics of wants and fundamental needs** Children distinguish human wants from needs and that due to scarcity, individuals, families, communities, and societies as a whole, must make choices in their activities and consumption of their goods and services. People make decisions about production and consumption considering costa and benefits for various choices. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.	**4th –6th (ages 9-12)** **Place in Time and Space -** **The Universe through the eyes of science and history** Building on the concept that humans seek to place themselves in time and space, children will develop an appreciation for the earth in relationship to the universe. Humans have always sought to explore and understand our place in the universe. Combining scientific thinking and the lens of the historian, children will develop an understanding of the solar system and track the history of human discovery related to space exploration beginning with the earliest scientist and moving to man's most recent explorations.
Study Three — April, May, June		
K-1st (Ages 5-7) **Place in Time and Space** Humans have always had a capacity to place themselves in time and space. Students explore the intergenerational connections of the various groups they belong to. They learn about the history and traditions of their own cultures. They gain perspective about where they are located spatially on the planet and in the universe.	**2nd-3rd (Ages 7-9)** **Place in Time and Space – Geological History, Human History** Humans have always had a capacity to place themselves in time and space. Students develop an understanding of the concept of regions, how regions and places are defined both by land forms and by human interactions and characteristics (cultures, linguistics, etc.) . Students understand that they are part of a larger history of humanity and the geological history of the earth.	**4th –6th (ages 9-12)** In the 4th – 6th (ages 9-12) children are able to use their skills to delve more deeply into an academic study. As such, there are two focus studies in the course of a year not three.

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9) Continent Study of Europe & Antarctica in September, October, November

Study One: Responsibility to Group Membership/ Diversity and Continuity of Living Things

Humans have established systems that structure their participation in groups. Children learn the various ways that governments are structured, develop an understanding of the principles of a representative democracy and the responsibilities they have a citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond and to understand that group membership means having responsibilities, as well as rights. Building on the study of the 5-7 program, children continue to explore the diversity and continuity of living things and the relationship of humans to the natural world. They understand how humans as organisms are similar and different from other organisms and that each has a place in the natural world.

Enduring Understanding for Study One	Essential Questions for Study One	Standards Tied to Study One
Social Studies	**Social Studies**	**Social Studies**
The principles and ideals underlying the American Democracy are designed to promote the freedom of the American people. Effective citizens are committed to protecting rights for themselves, other citizens, and future generations, by upholding their civic responsibilities and are aware of the potential consequences of inaction.	Why is authority needed? What are the obligations of authority? Why is respect for authority conditional? What is the nature of a privilege? What do you have to do to earn or lose a privilege? What is the relationship between my rights and my responsibilities? Is working in a group better than working alone?	Students will understand that respect for others, their opinions, and their property is a foundation of civil society in the United States. **C2A – K-3** Students will understand that American citizens have distinct responsibilities (such as voting), rights (such as free speech and freedom of religion), and privileges (such as driving). **C3AK-3** Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively. **C4AK-3**
Science	**Science**	**Science**
Diversity and Continuity of Living Things Organisms reproduce, develop, have predictable life cycles, and pass on heritable traits to their offspring. The diversity and changing of life forms over many generations is the result of natural selection, in which organisms with advantageous traits survive, reproduce, and pass those traits to offspring. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants.	**Diversity and Continuity of Living Things** Why do offspring resemble their parents? How are organisms of the same kind different from each other? How does this help them reproduce and survive? How does the understanding and manipulation of genetics, reproduction, development and evolution affect the quality of human life?	**Diversity and Continuity of Living Things** The offspring of some plants and animals resemble the parents (i.e., a tree seedling resembles a mature tree). **S7.1A (K-3)** The offspring of some plants and animals do not resemble the parents. Similarities between parents and their offspring become more apparent as their life cycle continues (i.e., caterpillars become butterflies). **S7.1B (K-3)** *Continued*

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9) Continent Study of Europe & Antarctica in September, October, November
Study One: Responsibility to Group Membership/ Diversity and Continuity of Living Things

Enduring Understanding for Study One	Essential Questions for Study One	Standards Tied to Study 1
Social Studies	**Social Studies**	**Social Studies**
The principles and ideals underlying the American Democracy are designed to promote the freedom of the American people. Effective citizens are committed to protecting rights for themselves, other citizens, and future generations, by upholding their civic responsibilities and are aware of the potential consequences of inaction. Distinctions between a citizen's rights, responsibilities, and privileges help to define the requirements and limits of personal freedom. Effective citizens can research issues, form reasoned opinions, support their positions, and engage in the political process.	Why is authority needed? What are the obligations of authority? Why is respect for authority conditional? What is the nature of a privilege? What do you have to do to earn or lose a privilege? What is the relationship between my rights and my responsibilities? Is working in a group better than working alone? How should an elected official represent the interests of the people? Should groups choose to make decisions democratically when it would be easier if one person made all the decisions and assignments? For whom should I vote? Why? What is most important to me when I make this decision?	Students will understand that respect for others, their opinions, and their property is a foundation of civil society in the United States. **C2A – K-3** Students will understand that American citizens have distinct responsibilities (such as voting), rights (such as free speech and freedom of religion), and privileges (such as driving). **C3AK-3** Students will understand leaders are sometimes chosen by election, and that elected officials are expected to represent the interests of the people who elected them **C.1.K-3a** Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively. **C4AK-3l**
Science	**Science**	**Science**
Diversity and Continuity of Living Things Organisms reproduce, develop, have predictable life cycles, and pass on heritable traits to their offspring. The diversity and changing of life forms over many generations is the result of natural selection, in which organisms with advantageous traits survive, reproduce, and pass those traits to offspring. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants.	**Diversity and Continuity of Living Things** Why do offspring resemble their parents? How are organisms of the same kind different from each other? How does this help them reproduce and survive? How does the understanding and manipulation of genetics, reproduction, development and evolution affect the quality of human life?	**Diversity and Continuity of Living Things** The Earth's present day species evolved from earlier, distinctly different species. **S7.2A (6-8)** Introduced Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival. Most of the species that have lived on Earth no longer exist. **S7.2D (6-8)** Introduced The offspring of some plants and animals resemble the parents (i.e., a tree seedling resembles a mature tree). **S7.1A (K-3)** The offspring of some plants and animals do not resemble the parents. Similarities between parents and their offspring become more apparent as their life cycle continues (i.e., caterpillars become butterflies). **S7.1B (K-3)** All plants and animals go through a life cycle of birth, growth, development, reproduction, and death. This cycle is predictable and describable, but differs from organism to organism. **S7.1C (K-3)** Many different kinds of plants and animals live throughout the world. These plants and animals can be grouped according to the characteristics they share. **S7.2A (K-3)**

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9) Continent Study of Europe & Antarctica in December to March

Study Two: Economics of Wants and Fundamental Needs -Children distinguish human wants from needs and understand that due to scarcity, individuals, families, communities, and societies as a whole, must make choices in their activities and consumption of their goods and services. Science has provided ways that humans can better meet their needs. As humans use natural resources to meet their needs, they may have long term impacts on the environment and the future availability of resources. Children discover the importance of carefully using the precious resources of our earth, becoming responsible producers, consumers, and conservers.

Enduring Understanding in Study Two	Essential Questions in Study Two	Standards Tied to Study Two
Social Studies	**Social Studies**	**Social Studies**
Due to scarcity, individuals as producers and consumers, families, communities, and societies as a whole must make choices in their activities and consumption of goods and services. Because resources are scarce, societies must organize the production, distribution, and allocation of goods and services. Effective decision making requires comparing the additional costs of alternatives relative to the additional benefits received.	Why can't I have everything I want? How should people use what they have to get what they want? Why have different ways to produce and allocate goods and services developed?	Students will understand that communities and families with limited resources undertake a wide variety of activities to satisfy their wants. **E1A (k-3)** Students will apply the concept that economic choices require the balancing of costs incurred with benefits received to decisions about the use of natural resources. **E1B(K-3)** Students will identify human wants and the various resources and strategies which have been used to satisfy them over time.**E3A(K-3)** Students will understand the nature and uses of maps, globes, and other geographics. **G1A(K-3)**
Science	**Science**	**Science**
Groups meet their fundamental needs in a variety of ways. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants. As Humans Seek to meet their needs, they can alter the living and non-living factors within an ecosystem, thereby creating changes to the overall system. People develop new materials as a response to the needs of society and pursuit of knowledge. This development may have risks and benefits to humans and the environment. People use a variety of resources to meet the basic and specific needs o life. Some of these resources cannot be replaced. Others can be replenished or exist in such vast quantities they are in no danger of becoming depleted. Humans use technology to solve problems and meet their needs.	How do humans have an impact on the diversity and stability of ecosystems? What is a "responsible" use of energy? Are there alternative forms of energy that will serve our needs, or better ways of using traditional forms of energy? What is technology? How has technology helped people solve problems? How do humans have an impact on the diversity and stability of ecosystems as they seek to meet their needs? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process? Are there alternative sources of energy to meet human needs? What can we do to benefit the health of humans and other organisms?	People use the variety of plants and animals found throughout the world for food, clothing, and shelter (e.g., silk for clothing, wood for building shelters). **S7.3A(K-3)** The ability of an organism (People) to meet its needs for survival is dependent upon its environment. Manipulation of the environment can positively or negatively affect the well being of various organisms that live there.**S6.4C (K-3)** Humans use devices and specialized equipment to ensure safety and to improve their quality of life (e.g., goggles, glasses, hearing aids, and wheelchairs). **S6.4B (K-3)** People have invented new technologies to solve problems. **S1.2A(K-3)** Technology has created new materials that can help people solve problems. **S.2.4B(K-3)** Many natural resources are limited. The amount available can be made to last longer by decreasing the use of some resources or by reusing or recycling certain materials. **S8.3A(K-3)** The properties of materials influence their use. Some materials are more suitable for making a particular product or device. **S2.4A (K-3)** Moving air, moving water, and sunlight contain energy that can be put to our use. **S3.4A (k-3)**

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9) Continent Study of Europe & Antarctica in April to June

Study Three: Place in Time and Space – Geological History, Human History- Humans have always had a capacity to place themselves in time and space. Students develop an understanding of the concept of regions and how regions and places are defined both by land forms and by human interactions and characteristics (cultures, linguistics, etc.) . Students understand that they are part of a larger history of humanity and the geological history of the earth.

Enduring Understanding for Study Three	Essential Questions for Study Three	Standards Tied to Study Three
Social Studies	**Social Studies**	**Social Studies**
Why are there different types of maps? How can they be "read" to discover the nature and contents of the real world? To what extent do differences between flat maps and globes affect understanding of places in the world and their relationship to each other? The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment. Places are unique associations of natural environments and human cultural modifications. Concepts of site and situation can explain the uniqueness of places. As site or situation change, so also does the character of a place. A region is a concept rather than a real object on the ground, used to simplify the diversity of places. Regions must have boundaries to exist, yet there are advantages and disadvantages associated with any real or abstract feature used to draw a boundary. History is often messy, yet a historian must logically organize events, recognize patterns and trends, explain cause and effect, make inferences, and draw conclusions from those sources which are available at the time. The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Competing chronologies can both be accurate, yet may not be equally relevant to the specific topic at hand.	Why does *where* matter? To what extent do differences in climate and landforms across the earth affect how and where people live? To what extent are places different in culture and activity? How might connections between places affect their size and complexity? Why might places differ from regions? How can regions be used to simplify an understanding of place diversity? How might differences and similarities among regions result in connections between them? Why does *when* matter?	Students will understand the nature and uses of maps, globes, and other geo-graphics. **G1A (K-3)** Students will distinguish different types of climate and landforms and explain why they occur.**G2A(K-3)** Students will identify types of human settlement, connections between settlements, and the types of activities found in each. **G3A(K-3)** Students will use the concepts of place and region to explain simple patterns of connections between and among places across the country and the world. **G4A(K-3)** Students will develop an understanding of the similarities between families now and in the past, including: Daily life today and in other times Cultural origins of customs and beliefs around the world **H4A(k-3)** Different kinds of communities in Delaware and the United States **H4B(K-3)** Students will develop an awareness of major events and people in United States and Delaware history. Who lives here and how did they get here? (immigrants, demographics, ethnic and religious groups) Important people in our past

Year One: What Does It Mean To Be Human? 2nd-3rd (Ages 7-9) Continent Study of Europe & Antarctica in April to June

Study Three: Place in Time and Space – Geological History, Human History- Humans have always had a capacity to place themselves in time and space. Students develop an understanding of the concept of regions and how regions and places are defined both by land forms and by human interactions and characteristics (cultures, linguistics, etc.) . Students understand that they are part of a larger history of humanity and the geological history of the earth.

Enduring Understanding for Study Three	Essential Questions for Study Three	Standards Tied to Study Three
Science	Science	Science
The earth's regions are often defined by the dynamic systems that cause natural boundaries to form.	How have various geological and weather events changed face of the earth? How do these changes impact the community and the history of the region?	Water reshapes Earth's land surface by eroding rock and soil in some areas and depositing them in other areas **S5.2B (4-5)** The surface of the earth changes constantly. Some of these changes happen slowly and are difficult to detect on a daily basis. Others changes happen quickly and result from events (i.e., major storms and volcanoes). **S5.2E (4-5)** The fit of continental coast lines, the similarity of rock types and fossilized remains provide evidence that today's continents were once a single land mass. The continents moved to their current positions on plates driven by energy from Earth's interior. **S5.2L (6-8)** Constructive processes that build up the land and the destructive processes of weathering and erosion shape and reshape the land surface. **5.4D (6-8)**

Instructional Strategies and Performance Projects/Assessments
Year One 2nd-3rd (Ages 7-9) - What Does it Mean to Be Human?

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the three studies of *What Does it Mean to Be Human*? These lessons are shared each year with various levels of detail according to the children's development. Particular emphasis should be given to the parts of the story that reinforce the content standards being developed in the K-1st (Ages 5-7)study of *What Does it Mean to Be Human.* The same lessons will be shared in the 2nd—3rd (Ages 7-9) program expanding on concepts introduced at the K-1st (Ages 5-7)level. (See page 5 for full details of Montessori Great Lessons)

First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Language
The Fifth Great Lesson: The Story of Numbers

Continent studies

Montessori classrooms focus on a study of each continent and the various cultures and geography of those continents as children discover what it means to be human, how geography impacts the way cultures meet their human needs, and how the various cultures interact. While presented separately in this document, the concepts of what it means to be human and the Delaware Content Standards are closely interwoven throughout the year through the continent studies. These Integrated units developed through the **Understanding by Design (UbD) process** (see planning sheets page 57). Possible instructional materials and strategies teachers may use are listed below.

Montessori lessons and materials related to:

- Responsive Classroom lessons and activities to build community and teach social skills, responsibilities, rights and privileges
- Create fair classroom rules
- Timelines of Individual lives
- Set up the process to carry out a mock election within the classroom
- Working in Groups
- Fundamental needs of man and how various cultures meet these needs (food, clothing, shelter, water, communication, spirituality)
- Geography maps, globes, landform models
- Cultural traditions and celebrations
- Set up the process to carry out a mock election within the classroom
- Hands on materials developing concepts of time, quantity, linear measurement, volume, weight, and money
- Specific lessons on the earth, sun and moon:
  - ◊ Describe the shape of the Earth as being like a sphere and describe how a globe models this shape.
  - ◊ Name and identify objects that can be observed in the sky including the Sun, Moon, and stars and man-made objects such as airplanes.
  - ◊ Describe the repeating cyclic pattern of day and night and include in this description that we can see the Sun only during the daytime.
  - ◊ List objects that can be observed in the sky in the daytime and objects that can be observed in the sky at nighttime. Discuss which objects are on which lists (e.g., the Moon can be observed sometimes in the day and sometimes at night).
  - ◊ Safely observe the location of the Sun at the same time in the morning, noon, and afternoon over several days. Describe the Sun's movement across the sky over the course of the day.
  - ◊ Observe the Moon in the day sky over several months. Draw a sequence of pictures that shows the repeating cyclic pattern of the Moon.
  - ◊ Use simple models to demonstrate how Earth's rotation causes day and night.

Science Kits

Instructional Strategies and Performance Projects/Assessments Year One 2nd-3rd (Ages 7-9) What Does it Mean to Be Human?

As related to the UBD Units, teachers will utilize the following science kits to address the science standards across the two year cycle of the 5-7 program.

- Trees—Exploring how trees are alive and different from non-living things, their basic needs, and functions of structures.
- Five Senses—Using the five senses to observe and describe the world
- Wood and Paper-Examining the properties of wood and paper
- Weather and Me-Weather patterns and their influence on living things
- Solids and Liquids-Comparing/Testing the Properties of Solids and Liquids
- Organisms-Requirements for living things to survive in their habitats

Delaware Recommended Curriculum units that might be used in the studies.

Writing the Story of the Past (Word
Scarcity and Wants (Word)
Regions (K-3) (Word)
Trading Partners (Word)
Using Maps and Globes (Word)
Places (K-3) (Word)

Classroom projects leading to the performance assessments as listed below:

- Using a world migration map, identify migration patterns around the world determining Americas roots, while tracking students' family migration path to the US or within the US
- Compare/contrast the migration paths of student's families to the migration patterns on the world map.
- Through a family interview, identify reasons ancestors migrated to the U.S. and traditions they brought with them to their new home/country.
- Photojournalism project – students will photograph people and places that represent cultural markers in our community.
- Create a dramatic enactment depicting the migratory path of a selected species
- Create a recycling and composting program for the classroom
- Create a structured market place wherein students will buy and sell chosen materials with all profits donated to a charity to be determined by the group's consensus

Resources

Montessori Albums—Resources obtained through MACTE approved Montessori training courses
http://missbarbara.net/ - Web sites related to each area of the Montessori Great Lessons and the Delaware Content Standards.
http://www.thinkfinity.org/
http://education.nationalgeographic.com/education/
http://sciencenetlinks.com/
http://www.econedlink.org/
http://historyexplorer.americanhistory.si.edu/
www.nsta.org
http://www.loc.gov/index.html
PALS is an on-line, standards-based, continually updated resource bank of science performance assessment tasks indexed via the National Science Education Standards (NSES) and various other standards frameworks.

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study - Asia

Children understand that humans think in various ways through their use of language, mathematics, and scientific inquiry, and research. Thinking like a scientist or a geographer, historian, or social scientist, they use methods of scientific inquiry and research tools to learn about the natural and human world around them within the context of continent studies. Each program year is comprised of three time-periods, or studies which spiral, building complexity throughout the subsequent grade levels. These studies are laid out across the curriculum by use of color coding for each study.

Study One - September, October, November

K-1st (Ages 5-7) **Man's Impact on Life Cycles and Systems**	2nd-3rd (Ages 7-9) **Life Cycles and Systems/ Historian's perspective**	4th –6th (Ages 9-12) **Energy exchanges and Systems / The Historical Perspective Science**
The natural world works in a series of cycles and systems. Children understand that human life has a beginning, a time of growth, and an ending. They acquire a basic knowledge of the body's needs and its functions and adopt personal habits that promote wellness. Extending this concept, children learn that species within an ecosystem have unique structures that allow them to survive in that ecosystem. Children will see the cycle of life around them in nature. This understanding extends to an understanding that all organisms are all connected as a part of the larger ecosystem. Children develop an understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. Beginning with their families and classrooms, children understand that people have a civic and global responsibility to use the earth's resources wisely.	The natural world works in a series of cycles and systems. This understanding extends to an understanding that we are all connected as a part of the larger ecosystem. This ecosystem depends on a system of consumers and producers. Species within an ecosystem have unique structures that allow them to survive in that ecosystem. As one part of the ecosystem changes, other parts will be affected. Children develop an understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. The perspective of the historian can help us to understand how man has impacted the regions around them and how the resulting changes in ecosystems have impacted communities.	Children discover that the flow of energy drives processes of change and all biological, chemical, and physical systems. In this study children learn that energy stored in a variety of systems can be transformed into their energy forms, which influence many facets of daily life. People use a variety of resources to meet the basic energy needs of life. Some of these resources cannot be replaced and others exist in vast quantities. The structure of materials influences their physical properties, chemical reactivity, and use. The exchange of energy can change matter from one form to another making a material more suitable for a specific purpose. Many Scientists have contributed to our understanding of the biological, chemical and physical nature of energy. Historians contribute to our understanding of how these scientists worked, their culture, society's responses to their work, and the resources they had for their work.

Study Two—December, January, February, March

K-1st (Ages 5-7)
Earth Systems and Human Interactions
Weather/Soils

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. These changes also impact human groups and their survival. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from geological evidence.

2nd-3rd (Ages 7-9)
Producing and Consuming

All people engage in making and using things. Children recognize the value and dignity of work. They learn that human economic systems serve to provide a method for people to distribute goods and services to meet their wants and needs. They understand that due to scarcity, individuals, families, and communities and societies as a whole must make choices in their activities and consumption of their goods and services. Life for all of us involves producing and consuming. Knowledge of materials and their properties helps man to match materials to products for consumption.

4th –6th (ages 9-12)
Producing and Consuming

Production and consumption occurs as a human interaction among humans and as a natural interaction in ecosystems. All people engage in making and using things. Children learn the various ways that different cultures produce goods, what they value for production, how they structure economic systems that support production and consumption, and how cultures use the regional resources and trade globally to meet various needs of different societies. They understand that due to scarcity, communities and societies must make choices in their activities and consumption of goods and services. Various aspects of science contribute to decisions about production and consumption. The ecosystem is dependent on the concept of producers and consumers. When man utilizes the natural resources around him, he may impact the balance of the ecosystem impacting his long-term ability to meet man's needs. The production and consumption of energy impacts the ability of a society to produce goods and services to meet their needs. Knowledge of materials and their properties helps man to match materials to products.

Study Three — April, May, June

K-1st (Ages 5-7)
The Flow of Energy and Human Needs

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. In this study, children understand that energy takes many forms. People use energy to do work. There are various sources of energy that people can harness to use. Some are renewable sources and others will be depleted at some point. People also seek to understand materials and their properties. The transfer of energy can change materials into different forms (water, ice, steam). Different materials are best suited to various uses by man because of their properties.

2nd-3rd (Ages 7-9)
Earth's Energy and Geological Systems

Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from geological evidence. These changes also impact human groups and the energy and mineral resources in various regions available to humans to meet their needs.

4th –6th (ages 9-12)
Study Three

In the 4th – 6th (ages 9-12) children are able to use their skills to delve more deeply into an academic study. As such, there are two focus studies in the course of a year not three.

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study - Asia in September, October, November

Study One – Life Cycles and Systems/ Historian's Perspective - The natural world works in a series of cycles and systems. This understanding extends to an understanding that we are all connected as a part of the larger ecosystem. This ecosystem depends on a system of consumers and producers. Species within an ecosystem have unique structures that allow them to survive in that ecosystem. As one part of the ecosystem changes, other parts will be affected. Children develop and understanding that man's decisions can impact the balance of the larger ecosystems and the sustainability of resources. The perspective of the historian can help us to understand how man has impacted the regions around them and how the resulting changes in ecosystems have impacted communities.

Enduring Understanding in Study One	Essential Questions in Study One	Standards Tied to Study One
Social Studies	**Social Studies**	**Social Studies**
Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Sources about the past need to be critically analyzed and categorized as they are used. Historians select important events from the past they consider worthy of being taught to the next generation. That selection process, deciding what to emphasize, and the questions that historians ask of the documents and other evidence contributes significantly to the conclusions drawn.	What can I learn about how ecosystems have impacted communities and regions shaping the history of an area from studying artifacts and documents? What can't I learn? How are artifacts and documents used to write the story of the past and the impact that man's decisions about the use of resources have today?	Students will use artifacts and documents to gather information about the past. **H2A(k-3)** Students will understand that historical accounts are constructed by drawing logical inferences from artifacts and documents. **H3A(k-3)**
Science	**Science**	**Science**
Life Processes Living systems demonstrate the complementary nature of structure and function. All organisms transfer matter and convert energy from one form to another. Both matter and energy are necessary to build and maintain structures within the organism. Organisms respond to internal and external cues, which allow them to survive. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation	**Life Processes** What do all living things need? How does structure relate to function in living systems from the cellular to the organismic level? How is matter transferred and energy transferred/ transformed in living systems? How do responses to internal and external cues aid in an organism's survival? What can we do to benefit the health of humans and other organisms?	**Life Processes** Plants and animals are similar to and different from each other in observable structures and behavior. These characteristics distinguish them from each other and from nonliving things. **S6.1A (K-3)** Each plant or animal has different structures that serve different functions in growth, survival and reproduction. **S6.1B(K-3)** In animals the skeletal-muscular system provides structure, support and enables movement. **S6.1C(K-3)** In addition to basic needs for survival, living things have needs specific to the organism such as temperature range and food requirements. **S6.2B (K-3)** The brain receives signals from parts of the body via the senses. In response, the brain sends signals to parts of the body to influence reactions. The ability of an organism to meet its needs for survival is dependent upon its environment. Manipulation of the environment can positively or negatively affect the well being of various organisms that live there. **S6.4C (K-3)**

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study - Asia in September, October, November

Study One – Life Cycles and Systems/ Historian's Perspective

Enduring Understanding in Study One	Essential Questions in Study One	Standards Tied to Study One
Science	**Science**	**Science**
Life Processes Living systems demonstrate the complementary nature of structure and function. All organisms transfer matter and convert energy from one form to another. Both matter and energy are necessary to build and maintain structures within the organism. Organisms respond to internal and external cues, which allow them to survive. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation **Ecology** Organisms and their environments are interconnected. Changes in one part of the system will affect other parts of the system. Matter needed to sustain life is continually recycled among and between organisms and the environment. Energy from the sun flows irreversibly through ecosystems and is conserved as organisms use and transform it.	**Life Processes** What do all living things need? How does structure relate to function in living systems from the cellular to the organismic level? How is matter transferred and energy transferred/ transformed in living systems? How do responses to internal and external cues aid in an organism's survival? What can we do to benefit the health of humans and other organisms? **Ecology** How can change in one part of an ecosystem affect change in other parts of the ecosystem? How do matter and energy link organisms to each other and their environments? Why is sunlight essential to life on earth? How do humans have an impact on the diversity and stability of ecosystems?	**Life Processes** Plants and animals are similar to and different from each other in observable structures and behavior. These characteristics distinguish them from each other and from nonliving things. **S6.1A (K-3)** Each plant or animal has different structures that serve different functions in growth, survival and reproduction. **S6.1B(K-3)** In animals the skeletal-muscular system provides structure, support and enables movement. **S6.1C(K-3)** In addition to basic needs for survival, living things have needs specific to the organism such as temperature range and food requirements. **S6.2B (K-3)** The brain receives signals from parts of the body via the senses. In response, the brain sends signals to parts of the body to influence reactions. The ability of an organism to meet its needs for survival is dependent upon its environment. Manipulation of the environment can positively or negatively affect the well being of various organisms that live there. **S6.4C (K-3)** **Ecology** An interconnectedness exists among the living and nonliving parts of an environment. This interconnectedness can be observed by the changes made by plants and animals in their environment. **S8.1A(K-3)** Plants and animals need enough space and resources to survive. Overcrowding leads to an increased need for resources. **S8.1B(K-3)** All animals depend on plants. Some animals eat plants for food. Other animals eat animals that have eaten plants. **S8.2A(K-3)** Plants need energy from the Sun, water and nutrients for growth and survival. **S8.2A(4-5)** Changes in an organism's environment may be either beneficial or harmful. Organisms may be affected by other organisms, by various physical factors (e.g., rainfall, temperature), by physical forces (e.g., storms, earthquakes), and by daily, seasonal, and annual cycles. **S8.1D(4-5)** Introduced Adaptations in organisms enable them to live and reproduce in certain environments. Those organisms that are best suited for a particular environment have adaptations that allow them to compete for available resources and cope with the physical conditions of their immediate surroundings. **S8.1C(4-5)** All living organisms interact with the living and nonliving parts of their surroundings to meet their needs for survival. These interactions lead to a constant exchange of matter. **S8.1B (4-5)** Introduced

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study of Asia in December to March

Study 2 – Producing and Consuming - All people engage in making and using things. Children recognize the value and dignity of work. They learn that human economic systems serve to provide a method for people to distribute goods and services to meet their wants and needs. They understand that due to scarcity, individuals, families, and communities and societies as a whole, must make choices in their activities and consumption of their goods and services. Life for all of us involves producing and consuming. Knowledge of materials and their properties helps man to match materials to products for consumption.

Enduring Understanding	Essential Questions	Standards Tied to Study 2
Social Studies	**Social Studies**	**Social Studies**
Due to scarcity, individuals as producers and consumers, families, communities, and societies as a whole must make choices in their activities and consumption of goods and services. Goods, services, and resources in a market economy are allocated based on the choices of consumers and producers. Effective decision making requires comparing the additional costs of alternatives to the additional benefits received. Individuals and nations trade when all parties expect to gain. Market economies are dependent on the creation and use of money and a monetary system to facilitate exchange. Mental maps summarize differences and similarities about places. These differences and similarities lead to conflict or cooperation and the exchange of goods and ideas between peoples.	Why does trade create interdependence? Why can't I have everything I want? How might the use of money affect the economy? Why is what we use as money valuable?	Students will understand that individuals and families with limited resources undertake a wide variety of activities to satisfy their wants. **E1A(k-3)** Students will apply the concept that economic choices require the balancing of costs incurred with benefits received.**E1B (K-3)** Students will understand that the exchange of goods and services around the world creates economic interdependence between people in different places. **E4A (K-3)** Students will understand how barter, money, and other media are employed to facilitate the exchange of resources, goods, and services. **E2A(K-3)** Students will understand the nature and uses of maps, globes, and other geo-graphics. **G1A(K-3**
Science	**Science**	**Science**
Materials and Their Properties The structures of materials determine their properties. The properties of materials influence their use. Some materials are more suitable for making a particular product or device. People develop materials in response to the needs of society and the pursuit of knowledge. This development may have risks and benefits to humans and the environment.	**Materials and Their Properties** What determines if new materials need to be developed to meet group needs? How do the properties of materials determine their use? How should people use what they have to get what they want? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process?	**Materials and Their Properties** Materials can be described and classified according to the following physical properties: size, shape, mass, texture, color, and material composition. Students can observe materials' physical properties by using tools that include rulers, balances, thermometers and hand lenses. **S.2 K-3A** Materials exist in one of three states – solid, liquid, or gas. Solids and liquids have easily observable properties and may change from one form to the other. **S.1 K-3B** Physical properties of materials can be changed by exposure to water, heat, light, or by cutting, mixing, and grinding. **S.2 K-3C** Many materials can be recycled and used again. **S2.3A (4-5)** The properties of materials influence their use. Some materials are more suitable for making a particular product or device. **S2.4A K-3**

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study of Asia in April, May, June

Study 3 - Earth's Energy and Geological Systems - Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from geological evidence. These changes also impact human groups and the energy and mineral resources in various regions available to humans to meet their needs.

Enduring Understanding in Study Three	Essential Questions in Study Three	Standards Tied to Study Three
Social Studies – as applied to the study of earth's systems and energy	**Social Studies**	**Social Studies**
Why are there different types of maps? How can they be "read" to discover the nature and contents of the real world? Places are unique associations of natural environments and human cultural modifications. The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment.	Why does *where* matter? How might differences and similarities among regions result in connections between them? To what extent do differences in the mineral and energy resources of a region affect how and where people live?	Students will understand the nature and uses of maps, globes, and other geo-graphics. **(G.1.k-3a)** Students will use the concepts of place and region to understand the natural mineral and energy resources available in a given place or region. Derived from **G4A(K-3)**
Science	**Science**	**Science**
Energy Energy takes many forms. These forms can be grouped into types of energy that are associated with the motion of mass (kinetic energy), and types of energy associated with the position of mass and with energy fields (potential energy). Changes take place because of the transfer of energy. Energy is transferred to matter through the action of forces. Different forces are responsible for the transfer of the different forms of energy. Energy may transfer into or out of a system and it may change forms, but the total energy cannot change.	**Energy** How do we know that things have energy? How can energy be transferred from one material to another? What happens to a material when energy is transferred to it? What happens to the energy in a system? Where does this energy come from, how is it changed within the system, and where does it ultimately go? How does the flow of energy affect the materials in the system?	**Energy** Heat energy is a form of energy that makes things warmer. **S3.1C (K-3)** Electrical energy is a form of energy that is used to operate many of our tools and appliances. **S3.1D (K-3** The motion of an object describes how its position is changing. Pushing or pulling on an object can change its position or motion. **(S3.2A K-3)** The motion of an object describes how its position is changing. Pushing or pulling on an object can change its position or motion. **(S3.2A K-3)** The position of an object gives its location relative to where you are (e.g., above, below, in front, or behind). The motion of an object describes how its position is changing. Pushing or pulling on an object can change its position or motion. **S3.2A (K-3)**

Year Two: How Does the World Work? 2nd-3rd (Ages 7-9) Continent Study of Asia in April, May, June

Study 3 - Earth's Energy and Geological Systems - Children discover that the flow of energy drives processes of change and all biological, chemical, physical and geological systems. Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. Some of the changes can be measured on a human time scale, but others occur so slowly, that they must be inferred from Geological evidence. These changes also impact human groups and the energy and mineral resources in various regions available to humans to meet their needs.

Enduring Understanding in Study Three	Essential Questions in Study Three	Standards Tied to Study Three
Science	**Science**	**Science**
Earth Systems Earth's systems can be broken down into individual components which have observable measurable properties. Technology enables us to better understand Earth's systems. It also allows us to analyze the impact of human activities on Earth's systems and the impact of Earth's systems on human activity.	**Earth Systems** How does technology extend human senses and understanding? How does understanding the properties of Earth materials and the physical laws that govern their behavior lead to prediction of Earth events? Why is this important to people?	**Earth Systems** Components of **Earth's system** include minerals, rocks, soil, water and air. These materials can be observed, sorted and/or classified based on their physical properties. **S5.1A (K-3)** Water can exist as a solid, liquid or gas and in different forms such as rain, snow and ice. **S5.1B (K-3)** Sand, clay and humus have distinct physical properties and are components of soils. **S5.1C (K-3)** Soil type can be identified by testing for grain size and composition. **S5.1E (K-3)** Rocks are natural combinations of minerals. Minerals can be classified according to their physical properties (i.e., luster, color and hardness). **S5.1F (K-3)** Earth materials can be observed and described using simple tools (e.g., hand lens and balances). **S5.3A (K-3)** Soil types vary from environment to environment. **S5.1D (k-3)** Identify rocks and minerals as natural resources and list ways that humans use these resources to meet their needs and wants.

Instructional Strategies and Performance Projects/Assessments
2nd-3rd (Ages 7-9) Year Two – How does the World Work?

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the three studies of What Does it Mean to Be Human? These lessons are shared each year with various levels of detail according to the children's development. Particular emphasis should be given to the parts of the story that reinforce the content standards being developed in the 5-7 study of "what does it mean to be human?" The same lessons will be shared in the 7-9 program expanding on concepts introduced at the 5-7 level. . (See page 5 for full details of Montessori Great Lessons)

First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Language
The Fifth Great Lesson: The Story of Numbers

Continent studies

Montessori classrooms focus on a study of each continent and the various cultures and geography of those continents as children discover what it means to be human, how geography impacts how cultures meet their human needs, and how the various cultures interact. While presented separately in this document, the concepts of what it means to be human and the Delaware Content Standards are closely interwoven throughout the year through the continent studies. These Integrated units developed through the **Understanding by Design (UbD) process** (see planning sheet on p.57). Possible Instructional materials and strategies teachers may use are listed below.

Montessori Lessons and materials related to:

- States of Matter
- Maps and Globes
- The Basic Needs of Man
- Land and Water Forms materials
- Earth's Layers, plate tectonics, rocks and minerals
- Weather and water cycle
- Reduce, Reuse, Recycle
- Money
- Measurement
- Electricity, solar experiments
- Energy cycle specifically lessons focusing on:
  - ◊ Identifying that objects that move have energy because of their motion. Demonstrate that a hanging mobile has energy because of its motion and the mobile was given this energy by the push of moving air.
  - ◊ Identifying heat energy as the energy that makes things warmer.
  - ◊ Identifying electrical energy as a form of energy that is used to operate many of our machines and tools.
  - ◊ Investigate how to change an object's movement by giving it a push or pull.
  - ◊ Demonstrating that the greater the force, the greater the change in motion of the object.
  - ◊ Demonstrating that when the pushes and pulls acting on an object are balanced, the object will not move. Investigate the conditions necessary for objects to balance. Describing how the object was made to balance.
  - ◊ Determining the effect of adding heat energy (warming) or removing heat energy (cooling) on the properties of water as it changes state (gas to liquid to solid, and vice versa).

- ◊ Investigating and describing what happens when an object at a higher temperature is placed in direct contact with an object at a lower temperature. Recording data and use the data to describe which way the heat energy is moving between the objects.
- ◊ Demonstrating that energy of motion can be transferred from one object to another (e.g., moving air transfers energy to make a pinwheel spin).
- ◊ Giving examples of energy transfer from one object to another.
- ◊ Simulating how bones, muscles, and joints in the human body work to transfer energy to objects, making them move.
- ◊ Investigating and describe how moving water and air can be used to make objects and machines, such as a waterwheel and windmill, move.

Science Kits –

As related to the UBD Units, teachers will utilize the following science kits to address the science standards across the two year cycle of the 7-9 program.

- Soils— Explaining how the properties of soils affect living things
- Balance & Weighing— Accounting for why objects move and balance
- Insects—The life cycle of living things
- Earth Materials—Exploring and understanding earth's materials
- Water—Acquiring evidence of how materials respond to change
- Human body—The human body - how form relates to function

Delaware Recommended Curriculum units that might be used in the studies.

Respect in Civil Society (Word)
Scarcity and Wants (Word)
Resources & Production (K-3)
Regions (K-3) (Word)
Economic Exchange (K-3) (Word)
Trading Partners (Word)
Places (K-3) (Word)
Using Maps and Globes (Word)

Classroom projects leading to the performance assessments as listed below.

- Host an Earth Fair – show and demonstrate how the Earth itself is always changing and how each aspect (plate tectonics, ring of fire, composition of the crust, rock cycle etc.) is part of a larger system working together and affected by the others.
- Observe the night sky and journal about what is observed and the changes that occur.
- Rock and mineral classification.
- Energy detectives - perform an energy evaluation at home and school
- Research project on alternative forms of energy, teaching other groups
- Measure size of trash, recycling of classroom waste, sort and classify the types of waste, plan and implement a system to reduce the amount of waste that is produced, measuring afterwards to determine the effects of the project.
- Map where common household and classroom items are made and where their resources come from, explaining Asia's role in the global economy.
- Using the classroom's field trip budget, determine what trips can be taken and if the financial "cost" is worth the educational "gain."
- Mini-Societies in which children set up a community economic system.

Other forms of informal assessments:

Art work	Cartoons	Designs and drawings	Documentary reports
Experiments	Foreign language activities	Games	Inventions
Journals	Maps	Model construction	Musical compositions

Newspapers	Notebooks	Oral reports	Original plays, stories, dances
Poetry recitations	Photos	Recipes	
Story illustrations	Story boards		

Resources

Montessori Albums—Resources obtained through MACTE approved Montessori training courses
http://missbarbara.net/ - Web sites related to each area of the Montessori Great Lessons and the Delaware Content Standards.
Montessori For Everyone Website: http://www.montessoriforeveryone.com/The-Five-Great-Lessons_ep_66-1.html
http://www.thinkfinity.org/
http://education.nationalgeographic.com/education/
http://sciencenetlinks.com/
http://www.econedlink.org/
http://historyexplorer.americanhistory.si.edu/
www.nsta.org
http://www.loc.gov/index.html
PALS is an on-line, standards-based, continually updated resource bank of science performance assessment tasks indexed via the National Science Education Standards (NSES) and various other standards frameworks.
Delaware Comprehensive Assessment System (DCAS) - Social studies in spring grade 4; science in spring grade 5

Sample Understanding by Design (UbD) Template: will be used by teachers to develop units that support the integration of the Montessori Curriculum across subject areas, to tie to the Common Core Standards, and to focus on the big ideas, essential questions, and transfer skills. The following was written for use in 2nd-3rd (ages 7-9) classrooms.

Title: Trash vs. Recycle, or where does it all go?	Grade: **2-3 (ages 7-9)**
Topic: Producing/Consuming	Designer:

Stage 1—Desired Results

Established Goals
Cycles and Systems, Producing and Consuming

Transfer Goals
Students will become thoughtful, responsible, educated consumers of their resources both at home and in the classroom. They will understand that they are part of a larger system and their choices impact the world around them.

Enduring Understandings: *Students will understand that…*
Cycles follow patterns.
If a variable is changed within a system it will affect other parts of the system.
All living things require resources to satisfy their fundamental needs.
Some of these resources are finite; some are renewable, if used responsibly.
Resources come at a cost both economically and globally.
People have varying wants based on their culture and resources.
Economic systems are based on geographical and cultural factors.

Essential Questions:
Where do you see different types of systems and how does a change affect the system(s).
What resources do all living things need?
Where do our resources come from and how do we make them last?
Why can't I have everything I want?
Why is what we use as money valuable?
Why does trade create interdependence?
How do I make informed choices?

Knowledge: *Students will know…*
Strategies for stretching our resources
Where trash goes and impact when we replace and throw things in the trash, recycling, compost, or reuse an item
Items have both an economic and global cost
Basic economics concepts of budgets, supply and demand, global interdependence for resources and goods
Energy Cycle
Fundamental Needs
Asia has a huge impact on our global economy
Many animals have systems for maintaining their resources (ex. Migration)

Skills: *Students will be able to…*
Classifying and sorting
Chemistry behind trash, recycling (matter and energy transformed)
Mathematics: budgeting, measuring (ex. cubic feet of trash)
Geography: World maps (where do our household items come from?), Mapping migration (monarchs)
Art: Creative reuse of items we planned to throw out

Stage 2 - Assessment Evidence

Performance Tasks: *Summary in GRASPS form*
Classify and sort items we plan to dispose or reuse – what makes paper, plastic, glass, cardboard what it is?
Measure size of trash, recycling of lunch items and work time items with the goal of reducing numbers
Map where common household and classroom items are made and where their resources come from
Research cost (economically and globally) of replacing common items in Montessori classroom or home: financial replacement cost? What about global cost of replacing wood/transporting using gas etc.)?-Map monarch migration
Composting project: Observing decomposition and comparing items to see how long they take to disintegrate. Create chart showing rate of decomposition over time.
Reusing items – what can we do with items we'd planned to trash? (make museum)
Economics – basic budgets – what costs money at our households/school in a given week?
Children will photograph these projects and create a museum/presentation for other classrooms and parents.

Key Criteria:
Did our classroom waste go down?
Did children report changes at home?
Did children become more creative and thoughtful in their uses of resources?
Evidence based on classroom discussions, individual journal entries, museum presentations and research results, measurement of trash over time.

Other Evidence:
Oral responses

The 4th—6th (ages 9-12) Cultural Curriculum
(Social Studies/Science)

This document is the core of the curriculum plan for the 4th—6th (ages 9-12) child. This document allows teachers to plan rich interdisciplinary units to ensure that the content standards are addressed, to determine where children are on the continuum of learning, to match instruction to learning goals, and to use assessment as a tool to monitor progress

Social Studies and Science—4th—6th (ages 9-12)

Transfer Knowledge

Transfer Skills in the Integrated Social Studies/ Science curriculum known as the Montessori Cultural curriculum are not based on the transfer of a specific body of knowledge but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Research Skills	Self-expression
Unity of Human Beings Students understand the similarities and differences of cultures across the world; that people interact with the natural world in distinct ways that produce cultural uniqueness; that people, places, and environments are integrated; that life involves producing and consuming. **Unity of all Living Things on Earth** Students will show respect for the beauty and wonder of nature. They develop an understanding of how, through science, we learn how nature works. They understand that all people use natural resources to meet a variety of human needs. *Continued* This use of resources defines many cross cultural human interac-	**Students will:** Understand the role the human potentials play in both their school community and their everyday lives. **Character** – Students are trustworthy, compassionate, and demonstrate integrity. **Leadership** – Students combine vision, ethics, and courage to empower others to make a difference in the community. **Thinking Skills** – Students develop flexibility, perseverance, curiosity, imagination, inventiveness, wonder, and reflections on process and product supporting lifelong and collaborative learning in order to address real life challenges. *Continued* **Life Management** – Students develop self-awareness so that in	**Students will:** Understand what makes a question which leads to inquiry and investigation. Plan investigations to address a question or problem. Use mathematics, reading, writing, and technology when conducting an investigation and communicating the results. Synthesize information from various resources and experiences to develop inquiries about the world around them. Determine ways to gather data and use various tools (experiments, surveys, logs, journals, etc.). Understand what constitutes evidence. *Continued* Understand when you have enough evidence.	**Students will:** Discover and express ideas, feelings, beliefs and values. Reflect on how these ideas effect the way they interact with the world. Acquire the skills necessary to successfully participate in groups, which includes defining the objective, dividing responsibilities, and working cooperatively. Demonstrate cooperation, assertion, responsibility, empathy and self-control when communicating with others. Utilize and explore their own creativity. Learn to appreciate the aesthetic. *Continued* Use various technology tools to gather, organize, and communi-

Social Studies and Science—4th—6th (Ages 9-12)

Students will:

Transfer Skills in the Integrated Social Studies/ Science curriculum known as the Montessori Cultural curriculum are not based on the transfer of a specific body of knowledge but rather of several key conceptual understandings and the development of what Maria Montessori called the human potentials. These understandings and potentials transfer throughout the child's school and later life experiences.

Montessori Great Lessons tied to what it means to live in the world.	Human Potentials	Use Research Skills to investigate their own inquiries and the world around them.	Express themselves in multiple ways and mediums
tions. **Unity of the Universe Itself** Students develop an understanding of their relationship and place in the development of the universe; how the earth has changed over time through physical, chemical, and geological processes.	the long run they make responsible, healthy and balanced life work choices. **Creative and Artistic** – Students discover and develop creative gifts so that in the long run they will be able to express themselves creatively and artistically, recognize and respect creativity in others, utilize the creativity of others, and preserve flexibility of thought and open-mindedness to look at and meet challenges. **Service and Responsibility** – Students learn the value of service and responsibility so that in the long run they will be able to demonstrate empathy, compassion,, social responsibility, and appreciation for others and the world around them.	Interpret evidence and present logical inferences and conclusions to others from the evidence.	cate with others. Use various visual print and artistic mediums to communicate with others. Adapt presentation style and speech for the audience. Present claims and findings in a logically sequenced way, developing concepts to support a position.

Standards Embedded Across All Three Years of the 4th-6th (Ages 9-12) Program

Enduring Understanding Embedded in all three studies	Essential Questions Embedded in all three studies	Standards Embedded in all Three Studies
Social Studies	**Social Studies**	**Social Studies**
Mental Maps summarize the difference and similarities about places. Because resources are scarce, societies must organize the production, distribution, and allocation of good and services. The way societies make economic decisions depends on cultural values, availability and quality of resources, and the type and use of technology. Many sources exist to help us learn about the past. These sources must be critically analyzed and categorized as they are used Participating in a group requires common goals, ways to interact successfully, responsibility to the group, and leadership.	Why is *when* an event happens important? How can words, models, and graphics help us learn about the world? Why does *where* matter? Why does *when* matter? How does getting what you want depend on where and when you live? How should people use what they have to get what they want? Which historical sources are best? What can I learn from artifacts and documents? What can't I learn? What does it mean to participate effectively in a group?	Students will demonstrate development of mental maps of local and world regions including the characteristics of major physical features, political divisions, and human settlements. **(G.1.4-5a/6-8a)** Students will understand that meeting human wants and needs is dependent on the local and global resources available to groups of people. **(E.3 4-5a/6-8a)** Students will use primary and secondary artifacts and documents to gather information about groups, individuals, and their histories. **(H. 2.4-5A/4-5b)** Students will acquire the skills necessary for participating in a group, including defining an objective, dividing responsibilities, and working cooperatively **(C.4.K-3a)** This is an ongoing developing skill for children from K-6th grade. Students will understand that respect for others, their opinions, and their property is a foundation of civil society **C2A – K-3**
Science as Inquiry	**Science as Inquiry**	**Science as Inquiry**
Scientific inquiry is a method by which humans seek to understand the natural world. Fair test design supports the validity of the investigation. Sometimes it is not possible to know everything that will have an effect on the investigation or control all conditions. The purpose of accurate data collection is to provide evidence to compare with the prediction. The body of scientific knowledge grows as scientists ask questions, conduct investigations, develop explanations and compares results with what is already known. The purpose of communicating is to share and justify results. Scientists communicate their results to others, including the details that allow others to replicate the results. The use of mathematics, reading, writing, and technology are important in conducting scientific inquiries.	What makes a question scientific? What constitutes evidence? When do you know you have enough evidence? Why is it necessary to justify and communicate an explanation?	Generate focused questions and informed predictions about the natural world. **S1.1A (4-5)** Design and conduct simple to multi-step investigations in order to test predictions. Keep constant all but the condition being tested. **S1.1B(4-5)** Accurately collect data using observations, simple tools and equipment. Display and organize data in tables, charts, diagrams, and bar graphs or plots over time. Compare and question results with and from others. **S1.1C (4-5)** Construct a reasonable explanation by analyzing evidence from the data. Revise the explanation after comparing results with other sources or after further investigation. **S1.1D (4-5)** Communicate procedures, data, and explanations to a variety of audiences. Justify the results by using evidence to form an argument. **S1.1E (4-5)** Use mathematics, reading, writing, and technology when conducting an investigation and communicating the results. **S1.1F (4-5)**

Year One: What Does It Mean To Be Human?
4th - 6th (Ages 9-12)

The Montessori curriculum provides the 5-9 year old with a foundational understanding of the connectedness of man to the environment and to each other. Through the continent studies, they explore the similarities and differences across cultures, discovering that all humans have fundamental needs that are met through the use of natural resources in their region and scientific advancement. Trade is another way that humans meet their needs for goods and services. Expanding on the concepts developed in the K-1st (ages 5-7) and the 2nd –3rd (ages7-9) programs, the 4th - 6th (Ages 9-12) child is able to use the tools of math, reading, writing, scientific inquiry and research to further expand their understanding of the world and develop inquiries of study on the ethics and social issues within and across cultures as man seeks to share the limited resources of the world community. They use their communication tools to frame view points, present evidence and share their understanding with others. Focusing on the concept of less is more and the desire of children this age to immerse themselves deeply in long-term studies, the program at this level focuses on two studies a year asking children to think like historians, economists, geographers, sociologists, anthropologists, chemists, geologists, biologists, and astronomers and physicists at various given points in their study.

Study One - The Purpose of Governments/ Scientific Advances
This study builds on the understandings of group functioning, rights and responsibilities from the 5-9 (K-3rd grade) program. The study focuses specifically on civic responsibility. Children learn the various ways that governments are structured and develop an understanding of the principles of a representative democracy and the responsibilities they have as a citizen holding both rights and responsibilities in society. They are challenged to be a good citizen in their school and beyond and to understand that citizenship in groups and the U.S. means having responsibilities as well as rights. Children explore various scientific advances, laws that have been instituted related to scientific knowledge, and how government influences the uses of our natural resources.

Study Two – Place in Time and Space - The Universe through the eyes of science and history
Building on the concept that humans seek to place themselves in time and space, children will develop an appreciation for the earth in relationship to the universe. Humans have always sought to explore and understand our place in the universe. Combining scientific thinking and the lens of the historian, children will develop an understanding of the solar system and track the history of human discovery related to space exploration beginning with the earliest scientist and moving to man's most recent explorations.

The following charts help teachers develop UBD unit plans connecting the Delaware Science and Social Studies Content Standards to these Studies so that they can be sure that each standard is focused on over the three year cycle of the 9-12 program and that the relationship between the individ-

Study One Year One—The Purpose of Governments/ Scientific Advances

Enduring Understanding for Study One	Essential Questions for Study One
Social Studies	**Social Studies**
Governments are structured to meet the basic needs of people in a society. There are various forms of governments. Constitutional Democracy attempts to balance individual freedoms and the needs of society as a whole. The principles and ideals underlying the American Democracy are designed to promote the freedom of the American people. Effective citizens are committed to protecting rights for themselves, other citizens, and future generations, by upholding their civic responsibilities and are aware of the potential consequences of inaction. Distinctions between a citizen's rights, responsibilities, and privileges help to define the requirements and limits of personal freedom. Effective citizens can research issues, form reasoned opinions, support their positions, and engage in the political process.	What does it take to be a good citizen in a Democracy? What makes a good citizen? How do I know if I am a good citizen? What happens if enough people are not good citizens? Should leaders be elected? How should an elected official represent the interests of the people? Why do different levels of government have different purposes? Why should the responsibilities and powers of government be divided? How am I protected from those with authority over me? Why are the rights in the Bill of Rights important to American citizens? To what extent are the rights of American citizens limited? In what ways is the Bill of Rights applied in everyday life? What is the nature of a privilege? What do you have to do to earn or lose a privilege? What is the relationship between my rights and my responsibilities? Is working in a group better than working alone? How should an elected official represent the interests of the people? For whom should I vote? Why? What is most important to me when I make this decision? How do I find out what a candidate thinks about a specific issue? Should groups choose to make decisions democratically when it would be easier if one person made all the decisions and assignments?

Social Studies Standards Tied to Study One

Students will understand that governments have a variety of structures and exist for many purposes and that in America, these are explained in the United States and State constitutions (C.1 4-5a)
Students will understand that the United States government is divided into executive, legislative, and judicial branches, each with specific responsibilities and powers. (C.1. 4-5b)
Students will understand that governments have the power to make and enforce laws and regulations, levy taxes, conduct foreign policy, and make war. (C1 6-8a)
Students will understand that the principle of "due process" means that the government must follow its own rules when taking actions against a citizen**. (**C2.4-5a)
Students will understand that a society based on the ideal of individual liberty requires a commitment on the part of its citizens to the principles of civic responsibility and personal civility. (C2.4-5b)
Students will identify the fundamental rights of all American citizens as enumerated in the Bill of Rights (C.34-5a)
Students will apply the protections guaranteed in the Bill of Rights to an analysis of everyday situations (C.34-5b)
Students will understand that in order to select effective leaders, citizens have to become informed about candidates' qualifications and the issues of the day. (C.4.4-5a)
Students will identify and employ the formal and informal methods by which democratic groups function. (C.4.4-5b)

Study One—Year One—The Purpose of Governments/ Scientific Advances

Enduring Understanding for Study One	Essential Questions for Study One
Science	**Science**
Scientific Advances/Role of Government Government plays a role in the ways that scientific advances are implemented to meet the needs of society and individuals. People develop new materials as a response to the needs of society and the pursuit of knowledge. This development may have risks and benefits to humans and the environment. The development of technology and advancement in science influence and drive each other forward. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation. The development of technology has allowed us to apply our knowledge of genetics, reproduction, development and evolution to meet human needs and wants. Humans can alter the living and non-living factors within an ecosystem, thereby creating changes to the overall system.	**Scientific Advances/Role of Government** **What role do governments play in the following scientific issues?** What determines if new materials need to be developed? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process? How do Science and Technology influence each other? How do people determine what advances are best for society? What can we do to benefit the health of humans and other organisms? How does the understanding and manipulation of genetics, reproduction, development and evolution affect the quality of human life? How do humans have an impact on the diversity and stability of ecosystems?

Science Standards Tied to Study One

Scientific Advances/Role of Government

The production of new materials has social, environmental, and other implications that require analyses of the risks and benefits. **S2.3B (6-8)**

Science and technology in society are driven by the following factors: economic, political, cultural, social, and environmental. Increased scientific knowledge and technology create changes that can be beneficial or detrimental to individuals or society through impact on human health and the environment. **(S1.2B 6-8)**

Science and technology are related. Technology provides the tools needed for science to investigate questions and may provide solutions to society's problems, wants, or needs. Not all technological solutions are effective, uniformly beneficial, or equally available to everyone. **(S1.2A 4-5)**

The development of safety devices and protective equipment has helped in the prevention of injuries. **S6.4A (4-5)**

The environment may contain dangerous levels of substances in the water and soil that are harmful to organisms. Careful monitoring of these is important for healthy life processes. **S6.4C (6-8)**

Short term and long term studies are used to determine the effects of environmental changes (natural and man-made) on the health of the organisms within that environment. **S6.4B (4-5)**

Technological advances in medicine and improvements in hygiene have helped in the prevention and treatment of illness. **S6.4A (6-8)**

Through the use of biotechnology, scientists engineer plants and manipulate growing conditions to meet human needs and wants (e.g., fruits without seeds, hydroponics). **S7.3A(4-5)**

Human activities may cause pollution of air, water and soil. **S8.3A(4-5)**

Different technologies are used to access resources to meet human wants and needs. In many cases the environment is affected and resources become limited. Some activities may include burning of fossil fuels, logging, building of highways, shopping centers, and dams, introduction of one species to control another species, spraying of insects, as well as some aspects of farming. **S8.3B(4-5)**

The introduction of competing species, removal of natural habitat, alteration of native landscapes due to urban, industrial and agricultural activities, over-harvesting of species, alteration of waterways and removal of natural predators, etc., are actions that have a lasting impact on ecosystems. **S8.3B(6-8)**

Individuals and policymakers make decisions regarding the use of resources based on estimated personal and societal benefits and risks. Impacts on environmental systems result from these decisions**. S8.3C(6-8)**

Advances in technology can expand the body of scientific knowledge. Technological tools allow people to observe objects and phenomena that otherwise would not be possible. Technology enhances the quality, accuracy, speed and analysis of data gathered. **S.1.3A(6-8)**

Study Two—Year One—Place in Time and Space – The Universe through the eyes of science and history

Enduring Understanding for Study Two	Essential Questions for Study Two
Social Studies	**Social Studies**
History provides a venue for understanding scientific discovery and advancements. History is often messy, yet a historian must logically organize events, recognize patterns and trends, explain cause and effect, make inferences, and draw conclusions from those sources which are available at the time. The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Competing chronologies can both be accurate, yet may not be equally relevant to the specific topic at hand. Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Sources about the past need to be critically analyzed and categorized as they are used. Critical investigation demands constant reassessment of one's research strategies. A historian must prove where the information can be found that is the basis for historical conclusions. What is written by a historian depends upon that historian's personal background and methods, the questions asked about the sources, and the sources used to find the answers to those questions. Historians select important events from the past they consider worthy of being taught to the next generation. That selection process, deciding what to emphasize and the questions that historians ask of the documents and other evidence, contributes significantly to the conclusions drawn. History is what the historian says it is. Different historians collect, use, and emphasize sources in ways that result in differing interpretations as they describe, compare, and interpret historical phenomena. Disagreement between historians about the causes and effects of historical events may result from these differences.	To what extent does one thing *always* lead to another? How should historical sources be used to look for change? How do artifacts and documents influence how history is written? Which historical source is best? How could there be different explanations of the same event in history?

Social Studies Standards Tied to Study Two

Students will study historical events and persons within a given time-frame in order to create a chronology and identify related cause-and-effect factors. **(H1.4-5a)**
Students will examine historical materials relating to a particular region, society, or theme; analyze change over time, and make logical inferences concerning cause and effect. **(H1.6-8a)**
Students will identify artifacts and documents as either primary or secondary sources of historical data from which historical accounts are constructed. **(H2.4-5A)**
Students will explain why historical accounts of the same event sometimes differ and will relate this explanation to the evidence presented or the point-of-view of the author. **(H2.4-5a)**

Study Two—Year One—Place in Time and Space – The Universe through the eyes of science and history

Enduring Understanding for Study Two	Essential Questions for Study Two
Science	**Science**
There are observable, predictable patterns of movement in the Sun, Earth, and Moon system that account for day/night. These patterns occur because of gravitational interaction and energy from the sun. Earth is part of a system that includes other planets. Most objects in the Solar System orbit the Sun and have distinctive physical characteristics and orderly motion. Technology expands our knowledge of the Earth, Moon, and Sun System	What are the observable patterns that occur as a result of the interactions between the Earth, Moon, and Sun? What Causes these patterns? What is Earth's place in the Solar System? How does Earth's physical characteristics and motion compare to other bodies in the Solar System? How has technology expanded our understanding of the Solar System?

Science Standards Tied to Study Two

The apparent path of the Sun, as seen from Earth, is from east to west. Over the course of a day, half of the Earth is always illuminated by the Sun causing day, and the half not illuminated by the Sun experiences nighttime. **S4.1A (4-5)**

The cycle from day to night is caused by the Earth's rotation. Earth undergoes one complete rotation about every 24 hours. **S4.1B (4-5)**

The Moon orbits the Earth. The appearance of the Moon changes as it moves through its orbit. These changes are called phases. **S4.1C (4-5)**

The Sun is much larger than the Moon. Although the Moon is closer to Earth than the Sun, the two appear to be the same size when viewed from Earth. This is because objects appear smaller as the distance from the viewer increases. **S4.1D (4-5)**

The Sun is a star that gives off radiant energy that drives Earth systems and is essential for life. **S4.1A (6-8)**

Moon phases occur because the relative positions of Earth, Moon, and Sun change, thereby enabling us to see different amounts of the Moon's surface**. S4.1C (6-8)**

The Moon is a natural satellite of Earth and is different than the Earth in size, atmosphere, gravity, and surface features. **S4.1D (6-8)**

Tides are caused by the gravitational interactions of the Sun, Moon and Earth. The Moon has a greater impact on tides because of its proximity to Earth. **S4.1AE (6-8)**

Earth is one of the planets in our Solar System that orbits the Sun. The Sun we see during the day is our nearest star. Stars we see at night lie outside our Solar System. S4.2A **(4-5)**

The Sun is by far the most massive object in the Solar System, therefore gravitationally dominating all other members of the Solar System. **S4.2A(6-8)**

The Solar System consists of comets, asteroids, planets, and their respective satellites, most of which orbit the Sun on a plane called the ecliptic. The planets in our Solar System revolve in the same direction around the Sun in elliptical orbits that are very close to being in the same plane. Most planets rotate in the same direction with respect to the Sun. **S4.2B(6-8)**

Humanity's view of the Solar System has expanded enormously as a result of our exploration of outer space. The Hubble telescope gives us a better view of the many planets than the view we have from the Earth. Robot probes sent to planets send back close-up pictures of their surfaces. **S4.3A (4-5)**

Terrestrial telescopes allow people to observe objects in the sky from Earth. **S4.3B(4-5)**

Technology, including humans landing on the Moon robot landers and other space probes, satellites, and radio telescopes, allow scientists to investigate conditions on Earth and on other objects in the Solar System. **S4.3A (6-8)**

The technology used in space exploration expands our knowledge of the Universe and has many spin-offs related to everyday applications. **S4.3B (6-8)**

Instructional Strategies and Performance Projects/Assessments
Year One

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the three studies of *What Does it Mean to Be Human*? These lessons are shared each year with various levels of detail according to the children's development. (See page 5 for full details of Montessori Great Lessons)

First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Writing
The Fifth Great Lesson: The Story of Numbers

Integrated units developed through the Understanding by Design (UbD) process (see planning sheet on p.87). Possible Instructional materials and strategies teachers may use are listed below.

Study 1 – The Purpose of Government/ Scientific Advances

Montessori lessons and materials related to:

- Montessori Fundamental Needs
- Governments and their structures
- Classroom projects leading to the performance assessments as listed below:
- Creating a country
- Establishing government: constitution, economy, hierarchy (if applicable)
- Scale maps of country including area and population distribution
- Compare and contrast governments/economies

Various lessons from the Delaware Recommended Curriculum leading to the development of the classroom government might include:

Democratic Methods (Word)
Liberty & Citizenship (Word)
Our Community: Profiles and Connections (Word)
Bill of Rights (Word)
Due Process (Word)
Mock Elections (Word)

Performance Projects and Assessments:

- Evaluate the issues in that a government might have related to scientific advancements with one of the following studies as determined by the children's prior experiences with the scientific thought involved:
- Evaluate the social, economic, and/or environmental consequences of the production of a particular new material to meet human wants and needs.
- How do governments encourage people to purchase energy efficient appliances? Is this a role that government should play? Discuss which devices /appliances (i.e., washer, dryer, refrigerator, electric furnace) are manufactured to require less energy. Select one device/appliance, research different brand and their energy usage, determine which would be the better buy, and report on the findings.
- Search for ways that people use laws to regulate the natural resources used to supply energy needs for lighting, heating, and electricity. Report your results by making a poster, written report or oral presentation.
-
- Evaluate the quality of water in a nearby stream. What ways do human activities (e.g., building roads, fertilizing golf courses, etc.) on the quality of Delaware's waters. What laws have been made to control human impact on the environment? What laws do you think are needed? Why?

- Use knowledge of human body systems to synthesize research data and make informed decisions regarding personal and public health. How do governments use this data to encourage people to make wise health choices?
- Identify safety equipment (e.g., goggles, gloves) and procedures (e.g., washing hands, wafting, not eating) used in classroom science investigations. Explain how these promote healthy living and prevent injuries. How do governments regulate the use of safety equipment ie. seatbelts, etc. When is using safety equipment a responsibility versus a right to choose?
- Identify natural (i.e., wildfire, flood, drought) and man-made changes (forest clear cutting, input of pollutants, filling in of marshland) to an ecosystem. Discuss how these changes affect the balance of an ecosystem. How do laws impact the ability of man to meet his needs and yet maintain the balance of the ecosystem?

Study 2 – Place in Time and Space - The Universe through the eyes of science and history

Montessori lessons and materials related to:

- Great lessons/Cosmic Task
- The Universe Story
- Science kits*
- Sky Watchers; Predictable patterns of interaction between the sun, moon and earth

Classroom projects leading to performance assessments as listed below:

- Use models to describe how the Earth's rotation on its axis causes one half of the Earth to always be illuminated by the Sun (day) and one half to not be illuminated by the Sun (night). Apply this model of the rotating Earth to explain why the Sun appears to move across the sky each day from east to west.
- Using newspapers, the internet, and actual sky observations when possible, charts the appearance of the Moon in the night sky over the course of at least two months. Identify the basic pattern of the Moon's appearance. Classify the Moon's appearance by using the terms new, first quarter, full, last (third) quarter.
- Observe the size of the Sun and Moon in the sky. Create models to illustrate the approximate size and distance relationship between the Sun and Moon. Explain why the Sun and Moon appear to be similar in size when observed in the sky.
- Research and develop a short report on one of the planets in the Solar System. Compare the information learned in the reports.
- Use photos gathered from terrestrial telescopes, robot probes, the Hubble telescope, and manned exploration of the Moon to create an historical time line of recent space exploration.
- Use various historical documentation and research to trace the history of space exploration as one of the basic inquiries of man over time. Demonstrate understanding by writing a journal from the point of view of one of the explorers, creating a play of the history of space exploration, or developing a series of news reports about early discoveries.

Various lessons from the Delaware Recommended Curriculum leading to the development historical investigation might include:

- Thinking Chronologically (Word)
- Interpreting the Past – Dueling Documents (Word)

Year Two —How Does the World Work?
4th – 6th (Ages 9-12) Extended Development of Concepts

Expanding on the concepts developed in the 5-7 (k/1st) and the 7-9 (2nd/3rd) programs, the 9-12 (45h, 5th, 6th) year old is able to use the tools of math, reading, writing, scientific inquiry and research to further expand their understanding of the world, develop inquiries of study, and to share their understanding with others. Focusing on the concept of less is more and the desire of children this age to immerse themselves deeply in long-term studies, the program at this level focuses on two studies a year asking children to think like historians, economists, geographers, sociologists, anthropologists, chemists, geologists, biologists, and astronomers at and physicists at various given points in their study.

Study One - Energy exchanges and Systems / The Historical Perspective Science- Children discover that the flow of energy drives processes of change and all biological, chemical, and physical systems. In this study children learn that energy stored in a variety of systems can be transformed into their energy forms, which influence many facets of daily life. People use a variety of resources to meet the basic energy needs of life. Some of these resources cannot be replaced and others exist in vast quantities. The structure of materials influences their physical properties, chemical reactivity, and use. The exchange of energy can change matter from one form to another making a material more suitable for a specific purpose. Many Scientists have contributed to our understanding the biological, chemical and physical nature of energy. Historians contribute to our understanding of how these scientists worked, their culture, society's responses to their work, and the resources they had for their work.

Study Two – Producing and Consuming- Production and consumption occurs as a human interaction among humans and as a natural interaction in ecosystems. All people engage in making and using things. Children learn the various ways that different cultures produce goods, what they value for production, how they structure economic systems that support production and consumption, and how cultures use the regional resources and trade globally to meet various needs of different societies. They understand that due to scarcity, communities and societies must make choices in their activities and consumption of goods and services. Various aspects of science contribute to decisions about production and consumption. The ecosystem is dependent on the concept of producers and consumers. When man utilizes the natural resources around him, he may impact the balance of the ecosystem impacting his long-term ability to meet man's needs. The production and consumption of energy impacts the ability of a society to produce goods and services to meet their needs. Knowledge of materials and their properties helps man to match materials to products.

The following charts help teachers develop UBD unit plans connecting the Delaware Science and Social Studies Content Standards to these Studies so that they can be sure that each standard is focused on over the three year cycle of the 9-12 program and that the relationship between the individual strands is developed. In some cases, concepts that are developed in the older grades are introduced in the Montessori program in the 9-12 years. This is a result of the Montessori program beginning with the whole and then studying the parts.

Study One—Year Two—Energy exchanges and Systems / The Historical Perspective Science

Enduring Understanding in Study One—Social Studies	Essential Questions in Study One—Social Studies
History provides a venue for understanding scientific discovery and advancements. History is often messy, yet a historian must logically organize events, recognize patterns and trends, explain cause and effect, make inferences, and draw conclusions from those sources which are available at the time. The questions a historian chooses to guide historical research that creates accurate chronologies will affect which events will go into the chronology and which will be left out. Competing chronologies can both be accurate, yet may not be equally relevant to the specific topic at hand. Many different types of sources exist to help us gather information about the past, such as artifacts and documents. Sources about the past need to be critically analyzed and categorized as they are used. Critical investigation demands constant reassessment of one's research strategies. A historian must prove where the information can be found which is the basis for their historical conclusions. What is written by a historian depends upon that historian's personal background and methods, the questions asked about the sources, and the sources used to find the answers to those questions. Historians select important events from the past they consider worthy of being taught to the next generation. That selection process, deciding what to emphasize and the questions that historians ask of the documents and other evidence, contributes significantly to the conclusions drawn. History is what the historian says it is. Different historians collect, use, and emphasize sources in ways that result in differing interpretations as they describe, compare, and interpret historical phenomena. Disagreement between historians about the causes and effects of historical events may result from these differences. *Understanding past processes and contributions is essential in building scientific knowledge.*	To what extent does one thing *always* lead to another? How should historical sources be used to look for change? How do artifacts and documents influence how history is written? Which historical source is best? How could there be different explanations of the same event in history? *How have past scientific contributions influenced current scientific understanding of the world?* *What do we mean in science when we say that we stand on the shoulders of giants?*

Social Studies Standards Tied to Study One

Students will study historical events and persons within a given time-frame in order to create a chronology and identify related cause-and-effect factors. (H1.4-5a)
Students will examine historical materials relating to a particular region, society, or theme; analyze change over time, and make logical inferences concerning cause and effect. **(H1.6-8a)**
Students will identify artifacts and documents as either primary or secondary sources of historical data from which historical accounts are constructed. **(H2.4-5A)**
Students will explain why historical accounts of the same event sometimes differ and will relate this explanation to the evidence presented or the point-of-view of the author. **(H2.4-5a)**
Contributions by individuals have been essential in advancing the body of scientific knowledge. **S1.3A(4-5)**
Over the course of human history, contributions to science have been made by different people from different cultures. Studying some of these contributions and how they came about provides insight into the expansion of scientific knowledge. **S1.3A(6-8)**

Study One —Year Two—Energy exchanges and Systems / The Historical Perspective Science

Enduring Understanding for Study One	Essential Questions for Study One
Science	**Science**
Energy Energy takes many forms. These forms can be grouped into types of energy that are associated with the motion of mass (kinetic energy), and types of energy associated with the position of mass and with energy fields (potential energy). Changes take place because of the transfer of energy. Energy is transferred to matter through the action of forces. Different forces are responsible for the transfer of the different forms of energy. Energy may transfer into or out of a system and it may change forms, but the total energy cannot change.	**Energy** How do we know that things have energy? How can energy be transferred from one material to another? What happens to a material when energy is transferred to it? What happens to the energy in a system – where does this energy come from, how is it changed within the system, and where does it ultimately go? How does the flow of energy affect the materials in the system?

Science Standards Tied to Study One

Energy

Energy from the sun includes visible light, which consists of a combination of different colored light, and components that are not visible, which include infrared and ultraviolet light waves. **S3.1A (4-6)**

The energy of a moving object depends on its speed. Faster moving objects have more energy than slower moving objects. **S3.1B (4-6)**

Energy can be stored in an elastic material when it is stretched. **S3.1C(4-6)**

Sound is a form of energy that is produced by vibrating objects, and can be described by its pitch and its loudness (volume). Sound travels faster through some substances than others. **S3.1D (4-5)**

Heat energy raises the object's temperature or changes the state of the object (i.e., solid to liquid, liquid to gas). **S3.1E(4-5)**

The energy obtained from electrical outlets is electrical energy that was produced at an electrical power plant. Electrical energy can be generated and then transmitted over great distances. Batteries are portable sources of electrical energy**. S3.1F (4-5**)

Electrical energy is a form of energy that can be transferred by moving charges through a complete circuit**. S3.1E (6-8)**

Force is any push or pull exerted by one object on another. Some forces (e.g., magnetic forces and gravity) can make things move without touching them. **S3.2A (4-5)**

When the forces acting on an object are balanced, its motion will not change. Unbalanced forces will cause the object's motion to change. Changes in motion depend upon the size and direction of the total unbalanced force exerted on the object.**S3.2A(6-8)**

The speeds of two or more objects can be compared (i.e., faster, slower) by measuring the distance traveled in a given unit of time, or by measuring the time needed to travel a fixed distance. **S3.2B (4-5)**

A force must be applied to change the speed of a moving object or change its direction of motion. Larger forces will create greater changes in an object's speed in a given unit of time. **S3.2C (4-5)**

Forces can be used to transfer energy from one object to another. Simple machines are used to transfer energy in order to simplify difficult tasks.**S3.2C(6-8)**

Pushing and pulling forces can be used to transfer energy from one object to another. **S3.2D (4-5)**

The transfer of heat energy may produce changes in the state of a substance**. S3.2E (4-5)**

The energy of electricity is transferred to electrical devices through simple closed circuits (simple series or simple parallel circuits). **S3.2F (4-5)**

Some materials allow electricity to flow freely (conductors), while other materials inhibit the flow of electricity (insulators**). S3.2G (4-5)**

Electrical systems can be designed to perform a variety of tasks. Series or parallel circuits can be used to transfer electrical energy to devices. Electrical circuits require a complete loop through which the electrical charges can pass. **S3.2H (6-8)**

Some materials are magnetic and can be pushed or pulled by other magnets. **S3.2H (4-5)**

Moving electric charges produce magnetic fields. **S3.2I(6-8)**

Gravity is a force that acts between masses over very large distances. Near the Earth's surface, gravity pulls objects and substances vertically downward. **3.2B (6-8)**

Study One—Year Two—Energy exchanges and Systems / The Historical Perspective Science	
Enduring Understanding for Study One	**Essential Questions for Study One**
Science	**Science**
Materials and Properties The structures of materials determine their properties. The properties of a mixture are based on the properties of its components.	**Materials and Properties** How do the properties of materials determine their use? How do the components determine the properties of mixtures? How can the properties of the components of a mixture be used to separate the mixture?

Science Standards Tied to Study One
Materials and Properties

Observable physical properties can be used to classify materials. These physical properties may include solubility, mass, magnetism, and electrical conductivity. Tools such as graduated cylinders, balances, rulers, magnifiers, simple circuits, and magnets are used to study the physical properties. **S 2.1 A (4-5)**

Heating and cooling of materials may produce changes in the state of solids, liquids and gases. **S 2.1 B(K-3)**

All matter consists of particles too small to be seen with the naked eye. The arrangement, motion, and interaction of these particles determine the three states of matter (solid, liquid, and gas). Particles in all three states are in constant motion. In the solid state, tightly packed particles have a limited range of motion. In the liquid state, particles are loosely packed and move past each other. In the gaseous state, particles are free to move. **S 2.1 A (6-8)**

Most materials are physical mixtures. Physical mixtures can be composed of different kinds of materials, each having distinct physical properties. These physical property differences can be used to separate, sort, and group the materials of the mixture. **S2.2A (4-5)**

Mixtures can consist of different combinations of solids and/or liquids. The characteristics of these resulting mixtures depend on the relative amounts and properties of the components. **S2.2B (4-5)**

Physical properties can be used to separate mixtures through techniques such as filtration and evaporation**. S2.2C (4-5)**

When a solid is dissolved in a liquid, a solution is formed that can be separated through the process of evaporation. **S2.2D (4-5)**

Study Two—Year Two— Producing and Consuming

Enduring Understanding	Essential Questions
Social Studies	**Social Studies**
Due to scarcity, individuals as producers and consumers, families, communities, and societies as a whole must make choices in their activities and consumption of goods and services. Goods, services, and resources in a market economy are allocated based on the choices of consumers and producers. Effective decision making requires comparing the additional costs of alternatives to the additional benefits received. Individuals and nations trade when all parties expect to gain. Market economies are dependent on the creation and use of money and a monetary system to facilitate exchange. Because resources are scarce, societies must organize the production, distribution, and allocation of goods and services. The way societies make economic decisions depends on cultural values, availability and quality of resources, and the type and use of technology. Nations with different economic systems often specialize and become interdependent as a result of international trade. Government actions that promote competition and free trade among people and nations increase the health of an economy and the welfare of nations. Students will develop a knowledge of the ways humans modify and respond to the natural environment The relationship between human needs and the natural environment is fundamental to life. Humans modify the environment in culturally distinctive ways as they respond to the resource opportunities and risks present in the physical world.	Why might prices change? Who decides? How do I know what and when to buy or sell? Does price *always* matter? To what extent should government become involved in markets? How does getting what you want within an economic system depend on *where* and *when* you live? In what ways do economic systems differ and why? Under what conditions does international trade occur? How does international trade increase standards of living? What will happen to the earth because people live on it? What will happen to people as a result of what happens to the earth?

Social Studies Standards Tied to Study Two

Students will understand that prices in a market economy are determined by the interaction of supply and demand, with governments intervening to deal with market failures. **(E1.4-5a)**

Students will understand that consumers and producers make economic choices based on supply, demand, access to markets, and the actions of the government. **(E1.4-5b)**

Students will understand the role of banks and other financial institutions in the economy. **E2.4-5a**

Students will demonstrate the ways in which the means of production, distribution, and exchange in different economic systems have a relationship to cultural values, resources, and technologies. **(E3.6-8a)**

Students will identify different means of production, distribution, and exchange used within economic systems in different times and places. **(E3.4-5a)**

Students will demonstrate how international trade links countries around the world and can improve the economic welfare of nations. **(E4.4-5a)**

Students will apply a knowledge of topography, climate, soils, and vegetation of Delaware and the United States to understand how human society alters, and is affected by, the physical environment. **G2.4-5a**

Students will apply a knowledge of the major processes shaping natural environments to understand how different peoples have changed and been affected by, physical environments in the world's sub-regions **G2.6-8a)**

Study Two—Year Two— Producing and Consuming

Enduring Understanding	Essential Questions
Science	**Science**
Ecology – Systems of Production and Consumption in Nature Organisms and their environments are interconnected. Changes in one part of the system will affect other parts of the system.	**Ecology – Systems of Production and Consumption in Nature** How can change in one part of an ecosystem affect change in other parts of the ecosystem?

Science Standards Tied to Study 2

Ecology – Systems of Production and Consumption in Nature

People depend on living and nonliving resources to satisfy their need for food, shelter, and fuel. **S8.1A(4-5)**

All living organisms interact with the living and nonliving parts of their surroundings to meet their needs for survival. These interactions lead to a constant exchange of matter. **S8.1B(4-5)**

Adaptations in organisms enable them to live and reproduce in certain environments. Those organisms that are best suited for particular environments have adaptations that allow them to compete for available resources and cope with the physical conditions of their immediate surroundings. **S8.1C(4-5)**

Changes in an organism's environment may be either beneficial or harmful. Organisms may be affected by other organisms, by various physical factors (e.g., rainfall, temperature), by physical forces (e.g., storms, earthquakes), and by daily, seasonal, and annual cycles. **S8.1D(4-5)**

In order to survive, populations within an ecosystem require a balance of resources. **S8.1E(4-5)**

The Delaware Estuary is a semi-enclosed tidal body of water with a free connection to the ocean. This richly productive system, including the associated marshes, provides a variety of habitats for diverse species. This system is biologically and economically important. **S8.1C(6-8)**

In all environments organisms with similar needs may compete with one another for resources including food, water, air, space and shelter. This competition results in natural population fluctuations. **S8.1F(6-8)**

Overpopulation can lead to depletion of resources and potential extinction of species. **S8.1G(6-8)**

Plants need energy from the Sun, water and nutrients for growth and survival. **S8.2A(4-5)**

Animals eat plants or other animals that have eaten plants. Animals obtain energy and materials for body repair and growth from food. **S8.2B(4-5)**

Dead plants and animals are broken down by decomposers. **S8.2C(4-5)**

All organisms, including humans, are part of and depend on food webs. Food webs recycle matter continuously as organisms are decomposed after death to return food materials to the environment where it re-enters a food web.**S8.2C(6-8)**

Human activities may cause pollution of air, water and soil. **S8.3A(4-5)**

Different technologies are used to access resources to meet human wants and needs. In many cases the environment is affected and resources become limited. Some activities may include burning of fossil fuels, logging, building of highways, shopping centers, and dams, introduction of one species to control another species, spraying of insects, as well as some aspects of farming. **S83B(4-5)**

The introduction of competing species, removal of natural habitat, alteration of native landscapes due to urban, industrial and agricultural activities, over-harvesting of species, alteration of waterways and removal of natural predators, etc., are actions that have a lasting impact on ecosystems. **S8.3B(6-8)**

Individuals and policymakers make decisions regarding the use of resources based on estimated personal and societal benefits and risks. Impacts on environmental systems result from these decisions. **S8.3C(6-8)**

Study Two—Year Two— Producing and Consuming

Enduring Understanding	Essential Questions
Science	**Science**
Energy Production and Consumption People utilize a variety of resources to meet the basic and specific needs of life. Some of these resources cannot be replaced. Other resources can be replenished or exist in such vast quantities they are in no danger of becoming depleted. Often the energy stored in resources must be transformed into more useful forms and transported over great distances before it can be helpful to us **Materials and Their Properties** The structures of materials determine their properties. The properties of materials influence their use. Some materials are more suitable for making a particular product or device. People develop materials in response to the needs of society and the pursuit of knowledge. This development may have risks and benefits to humans and the environment.	**Energy Production and Consumption** What is a "responsible" use of energy? Are there alternative forms of energy that will serve our needs or better ways of using traditional forms of energy? **Materials and Their Properties** How do you know which material is best for a particular product or need? Why should people consider the risks and benefits before the production of new materials and/or the implementation of a new process?

Science Standards Tied to Study Two

Energy Production and Consumption

The production of most of the energy that we use in our daily lives comes from energy stored in natural resources. The quantity of these resources is limited, so it is important to conserve our natural resources by using them wisely. **S3.4A (4-5)**

Energy sources can be renewable or finite. Most energy used by industrial societies is derived from fossil fuel sources. Such sources are inherently limited on the Earth and are unevenly distributed geographically. Renewable energy sources vary in their availability and ease of use. **S3.4A (6-8)**

Technological advances throughout history have led to the discovery and use of different forms of energy and to more efficient use of all forms of energy. These technological advances have led to increased demand for energy and have had both beneficial and detrimental effects on society. **S3.4B (6-8)**

Responsible use of energy requires consideration of energy availability, efficiency of its use, the environmental impact, and possible alternate sources. **S3.4C (6-8)**

Materials and Their Properties

Many materials can be recycled and used again (sometimes in different forms). **S2.3A (4-5)**

Synthetic materials and/or modified natural materials are produced to make products used in everyday life. **S2.3A (6-8)**

The production of new materials has social, environmental, and other implications that require analyses of the risks and benefits. **S2.3B (6-8)**

Instructional Strategies and Performance Projects/Assessments
Year Two - How does the world work?

Study One – Energy exchanges and systems / The Historical Perspective of Science

Montessori lessons and materials related to:

- Great lessons/Cosmic Task
- The Universe Story
- Fundamental Needs of man
- Biographical sketches of people throughout history
- Timelines of humans on the earth
- Functional Geography

Science kits for possible use with this study:

- Magnetism and Electricity - Using electricity in everyday life
- Mixtures and Solutions – Combining and separating substances
- Motion and Design – Physics of motion and technique in design

Various lessons from the Delaware Recommended Curriculum leading to an understanding of cultures past and present might include:

- Thinking Chronologically (Word)
- Interpreting the Past – Dueling Documents (Word)
- Historical Research (Word)

Classroom projects leading to the performance assessments as listed below:

- Focusing on one scientist who contributed to the world's understanding of energy, materials and their properties, or forces and motion, students will develop a chronology of the scientist's life, relate that chronology to the time period he lived in and reflect on how his work was accepted or not accepted according to his place in time, culture, and place. Demonstrate understanding by writing a journal from the point of view of one of the scientists, creating a play about the history related to one of these areas, or developing a series of news reports about early discoveries.
- Evaluate the electrical use of the school or your home. What are the sources of this energy? What are ways that you recommend to conserve energy? Provide mathematical evidence to support your recommendations. What natural resources are used to provide electrical energy in your home or school? What are the costs implications to your family or the school? Why should they or should they not choose those sources for energy? What alternatives are there (wind, solar, water, etc.)? What are the economic costs of these sources of energy?
- Design a device that relies on the directional and/or mechanical advantage of a simple machine to perform a task (e.g., lift a weight, move a heavy object). Identify the forces and motions involved, the source of the energy used to complete the task, and how the energy is used by the simple machine.
- Identify different forms of alternative energy (i.e., solar, wind, ocean waves, tidal and hydroelectric systems). Research and report on the use of this alternative form of energy. Discuss and compare findings to describe the advantages and disadvantages of different kinds of alternative energy.
- Write an opinion editorial for the newspaper on the social, economic, and/or environmental consequences of the production of new materials to meet human wants and needs.

Study Two – Producing and Consuming

Montessori lessons and materials related to:

- Timelines of humans on the earth
- Study of Early Humans Fundamental Needs
- Ecosystems
- The biomes
- Landforms
- Science kits for possible use with this study
- Ecosystems – Interactions between living things and their environment

Various lessons from the Delaware Recommended Curriculum leading to an understanding of cultures past and present might include:

- Reasons for Banks (Word)
- Thinking Economically (Word)
- Economic Systems (Word)

Possible classroom projects leading to the performance assessments as listed below:

- Classroom mini-society in which students run a city with businesses and services. Junior Achievement's JA Biz Town would be a resource for this hands-on project and assessments.
- Presentations that demonstrate an understanding of various ways that people around the world produce goods and meet energy needs using the resources available to them in their ecosystem. Argue the impact of the consumption of those resources on the ecosystem and the decisions that the community faces as a result.
- Analyze ways in which human activity (e.g. producing food, transporting materials, generating energy, disposing of waste, obtaining fresh water, or extracting natural resources) can affect ecosystems and the organisms within.
- Examine and describe how the exponential growth of the human population has affected the consumption of renewable and non-renewable resources.
- Evaluate decisions about the use of resources in one country and how these decisions can impact the diversity and stability of ecosystems globally.
- Teachers will develop rubrics based on content standards as evaluation of progress.

Assessment Tools for Both Studies

PALS is an on-line, standards-based, continually updated resource bank of science performance assessment tasks indexed via the National Science Education Standards (NSES) and various other standards frameworks.

Delaware Comprehensive Assessment System (DCAS) - Social studies in spring grade 4; science in spring grade 5

Other forms of informal assessments:

Art work	Cartoons	Designs and drawings	Documentary reports
Experiments	Foreign language activities	Games	Inventions
Journals	Maps	Model construction	Musical compositions
Newspapers	Notebooks	Oral reports	Original plays, stories, dances
Poetry recitations	Photos	Recipes	
Story illustrations	Story boards		

Year Three – What is Culture?
4th – 6th (Ages 9-12)
Continent Study

Expanding on the concepts developed in the K-1st (Ages 5-7) and the 2nd-3rd (Ages 7-9) programs, the 4th-6th (Ages 9-12) child is able to use the tools of math, reading, writing, scientific inquiry and research to further expand their understanding of the world, develop inquiries of study, and to share their understanding with others. Focusing on the concept of less is more and the desire of children this age to immerse themselves deeply in long-term studies, the program at this level focuses on two studies a year asking children to think like historians, economists, geographers, sociologists, anthropologists, chemists, geologists, biologists, astronomers and physicists at various given points in their study.

Study One – The diversity of life and life processes/cycles in nature and in studies of human cultures - The natural living world is composed of a diverse group of organisms and species. Man seeks to understand the similarities and differences between them including structure of species, life cycles, and the interdependency between them. Some scientists view some animal groups as having cultures or norms, e.g. Jane Goodall and her study of chimpanzees. Man uses this knowledge to improve his own life experience. Like the organisms in the natural world around us, people of various cultures have a life cycle and traditions that go with various stages of their life cycles. Children come to appreciate the diversity across cultures, understanding that cultures address childhood, adolescence, adulthood and aging in similar and different ways.

Study Two – Earth's Dynamic Systems/Earth Regions/ and the Impact on Culture Earth's dynamic systems are made up of the solid earth (geosphere), the oceans, lakes, rivers, glaciers and ice sheets (hydrosphere), the atmosphere, and organisms. Interactions and changes in these spheres have resulted in ongoing changes to the system. Some of the changes can be measured on a human time scale, but others occur so slowly that they must be inferred from Geological evidence. These changes also impact human groups, their resources, the cultures that develop and interactions and exchanges between cultures. Groups may choose to settle in particular areas because of the various geological aspects of the region providing for such things as good trade routes, protection from others, and ease of communication. The history of a region helps us to understand the development of cultural uniqueness and the impact of natural events on the people living in a region.

Study One – The diversity of life and life processes/cycles in nature and in studies of human cultures

Enduring Understanding in Study One	Essential Questions in Study One
Social Studies	**Social Studies**
Students will develop an understanding of the diversity of human culture and the unique nature of places Like the organisms in the natural world around us, people of various cultures have a life cycle and traditions that go with various stages of their life cycles. Culture is the collective traditions and beliefs that distinguish on category of people from another. Culture includes learned and shared patterns or behaviors of living day to day, year to year, and life cycle to life cycle. Cultures have symbols, artifacts and structures that define them. Places are unique associations of natural environments and human cultural modifications. Cultural differences produce patterns of diversity in language, religion, economic activity, social custom, and political organization across the Earth's surface. Places reflect the culture of the inhabitants as well as the ways that culture has changed over time. The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment.	What are the various traditions that various cultures adhere to at the different stages of human life? What are the collective beliefs and traditions within a culture? What are the shared patterns and routine behaviors of a specific culture? What are the important symbols and artifacts for a culture? How does the natural environment influence cultural norms? To what extent are places different in culture and activity? What makes a place culturally unique? Under what conditions do cultures spread?

Social Studies Standards Tied to Study One

Students will identify and explain the major cultural patterns of human activity in the world's sub-regions. **(G3.6-8.a)**

Students will develop an understanding of selected themes in United States history and cultures, including:
Who are the American people? (demographics, immigration, cultures)
How have advances in technology changed our lives?
Important people in American history **H4 (4-5b)**

Students will apply a knowledge of topography, climate, soils, and vegetation of Delaware and the United States to understand how human society alters, and is affected by, the physical environment **(G2.6-8a)** This is applied to understanding human culture in particular.

Enduring Science Understanding in Study One	Essential Science Questions in Study One
Life Processes Living systems, from the organismic to the cellular level, demonstrate the complementary nature of structure and function. All organisms transfer matter and convert energy from one form to another. Both matter and energy are necessary to build and maintain structures within the organism. Organisms respond to internal and external cues, which allow them to survive. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation All organisms transfer matter and convert energy from one form to another. Both matter and energy are necessary to build and maintain structures within the organism. The life processes of organisms are affected by their interactions with each other and their environment, and may be altered by human manipulation. **Diversity and Continuity of Living Things** The diversity and changing of life forms over many generations is the result of natural selection, in which organisms with advantageous traits survive, reproduce, and pass those traits to offspring.	**Life Processes** What do all living things need? How does structure relate to function in living systems from the cellular to the organismic level? How do responses to internal and external cues aid in an organism's survival? What can we do to benefit the health of humans and other organisms? How is matter transferred and energy transferred/transformed in living systems? **Diversity and Continuity of Living Things** How are organisms of the same kind different from each other? How does this help them reproduce and survive?

Science Standards Tied to Study One

Life Processes

Structures that function for similar purposes in living things may have different appearances. **S6.1A (4-5)**

The digestive system has major structures that function to break down food for use in the body. The major parts of the digestive system include the mouth, esophagus, stomach, small intestine, and large intestine. **S6.1B(4-5)**

Organisms can be grouped based on similarities and differences in their structures and functions. These may include characteristics such as appendages, roots and leaves of plants, or the presence or lack of a backbone. **S6.1C(4-5)**

Living organisms share common characteristics that distinguish them from non-living, dead, and dormant things. **S6.1A(6-8)**

All organisms require energy. A general distinction among organisms is that plants use solar energy to make their own food (sugar) and animals acquire energy directly or indirectly from plants. **S6.2A (6-8)**

The human body has systems that perform functions necessary for life. Major systems of the human body include the digestive, respiratory, reproductive, and circulatory systems. **S6.1F(6-8**)

Diversity and Continuity of Living Things

Plants need the Sun's energy to grow and survive. **S6.2A (4-5)**

Animals need food to provide materials and energy for life which they derive directly or indirectly from plants. **S6.2B (4-5)**

Plants use the energy from sunlight, carbon dioxide, and water to produce sugars (photosynthesis). Plants can use the food (sugar) immediately or store it for later use. **S6.2B (6-8)**

An organism displays behaviors in response to internal cues, such as hunger, and external cues, such as light, temperature, or interaction with other living things. **S6.3A (4-5)**

There are similarities and differences in how organisms respond to internal and external cues. **S6.3B (4-5)**

Physical characteristics are passed on from parent to offspring. Organisms with two parents inherit characteristics of both. **S7.1A (4-6)**

An organism's physical appearance can change without the change being passed on to its offspring (e.g., dyed hair, loss of a claw). **S7.1B (4-6)**

Most plants go through a life cycle of germination, growth, development, reproduction, and death. **S7.1C (4-6)**

Organisms of the same type vary in appearance. These variations may provide an advantage in reproduction and survival. **S7.2A (4-5)**

The Earth's present day species evolved from earlier, distinctly different species. Many thousands of layers of sedimentary rock provide evidence for the long history of the Earth and for the long history of changing life forms whose remains are found in the rocks. More recently deposited rock layers are more likely to contain fossils resembling existing species. **S7.2A (6-8)**

Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival. Most of the species that have lived on Earth no longer exist. **S7.2D (6-8)**

There is a wide diversity of organisms on Earth. Organisms may be classified in a number of ways, one classification system places organisms into five kingdoms. **S7.2E (6-8**)

The great variety of body forms and structures found in different species enable organisms to survive in diverse environments. **S7.2F (6-8**

Study Two – Earth's Dynamic Systems/Earth Regions/ and the Impact on Culture

Enduring Understanding for Study Two	Essential Questions for Study Two
Social Studies	**Social Studies**
Mental maps summarize differences and similarities about places. These differences and similarities lead to conflict or cooperation and the exchange of goods and ideas between people. Mental maps change as the scale moves from local to global; we know more about our home area than more distant places; and these differences affect how we feel and behave towards places that are distant versus those that are close. The ways mapped patterns are analyzed and used help solve societal problems. A region is a concept rather than a real object on the ground, used to simplify the diversity of places. Regions must have boundaries to exist, yet there advantages and disadvantages associated with any real or abstract feature used to draw a boundary. Places are unique associations of natural environments and human cultural modifications. Concepts of site and situation can explain the uniqueness of places. As site or situation change, so also does the character of a place. The human response to the characteristics of a physical environment comes with consequences for both the human culture and the physical environment.	How can thinking like a geographer help us to understand the concept of place & the relation between place & people? Why does *where* matter? To what extent are mental maps of different scales linked? How might connections between places affect their size and complexity? How might differences and similarities among regions result in connections between them? How might this place be like others in a larger region? Why is a place founded where it is? Why might those reasons change? What will happen to the earth because people live on it? What will happen to people as a result of what happens to the earth?

Social Studies Standards Tied to Study Two

Students will demonstrate development of mental maps of Delaware and of the United States which include the relative location and characteristics of major physical features, political divisions, and human settlements **(G1. 4-5a)**
Students will demonstrate mental maps of the world and its sub-regions which include the relative location and characteristics of major physical features, political divisions, and human settlements **(G1.6-8a)**
Students will apply geographic skills to develop a profile of the local community by placing it in the context of physical, cultural, and other types of regions **(G4.4-5a)**
Students will understand that the location of people's settlements impacts the economic activities in different world regions **G4.6-8a**)
Students will understand the reasons for the locations of human activities and settlements and the routes connecting them in Delaware and in the United States. **(G3.4-5a)**
Students will identify and explain the major cultural patterns of human activity in the world's sub-regions. **(G3.6-8a)**
Students will apply a knowledge of topography, climate, soils, and vegetation of Delaware and the United States to understand how human society alters, and is affected by, the physical environment. **(G2.4-5a**)
Students will apply a knowledge of the major processes shaping natural environments to understand how different peoples have changed and been affected by physical environments in the world's sub-regions. **(G2.6-8a)**

Study Two – Earth's Dynamic Systems/Earth Regions/ and the Impact on Culture

Enduring Understandings for Study Two	Essential Questions for Study Two
Science	**Science**
The earth's regions are often defined by the dynamic systems that cause natural boundaries to form. Earth's components form systems. These systems continually interact at different rates of time, affecting the Earth locally and globally. Technology enables us to better understand Earth's systems. It also allows us to analyze the impact of human activities on Earth's systems and the impact of Earth's systems on human activity.	How does understanding the properties of Earth materials and the physical laws that govern their behavior lead to prediction of Earth events? How do changes in one part of the Earth system affect other parts of the system? How do these changes impact the community and the history of the region? How does technology extend human senses and understanding of earth stems and their impact on a region?

Science Standards Tied to Study Two

Water exists in three states (solid, liquid and gas) that are dependent upon the surrounding temperature. **S5.1A (4-5)**
Rocks and minerals are broken down over time to clay and sand sized particles. These particles combine with plant remains to form soil. **S5.1B (4-5)**
The ability of water to pass through soil depends on the relative amounts of clay and sand in the soil. **S5.1C (4-5)**
Water exists on the Earth in reservoirs (on or within the Earth's surface and atmosphere). The total amount of water in these reservoirs does not change, however, the ratio of water in solid, liquid, or gaseous form varies over time and location. **S5.1A (6-8)**
The movement of water among the geosphere, hydrosphere and atmosphere affects such things as weather systems, ocean currents, and global climate. **S5.1B (6-8)**
The formation of sediment and soil requires a long period of time as rocks are weathered, eroded and deposited. **S5.1C (6-8)**
Earth is a dynamic system resulting from interactions among the geosphere, hydrosphere, atmosphere and biosphere. **S5.2A (4-5)**
Water reshapes Earth's land surface by eroding rock and soil in some areas and depositing them in other areas **S5.2B (4-5)**
The flow of water can be affected by human activities, ground cover and the slope of the land affected. **S5.2C (4-5)**
Water in rivers and streams transports materials. As a general rule, when a stream enters a larger body of water, less massive materials in suspension will travel farther than more massive materials before settling. **S5.2D (4-5)**
The surface of the earth changes constantly. Some of these changes happen slowly and are difficult to detect on a daily basis. Others changes happen quickly and result from events (i.e., major storms and volcanoes). **S5.2E (4-5)**
Weather changes daily and seasonally. Weather in Delaware may change little from day to day, but can vary greatly when storm systems move into the area. **S5.2F (4-5)**
Some weather events, such as snowstorms, hurricanes, thunderstorms or tornadoes are more likely to occur at different times of the year. **S5.2G (4-5)**
Local weather at any point in time varies at different locations around the world. **S5.2H (4-5)**
The fit of continental coast lines, the similarity of rock types and fossilized remains provide evidence that today's continents were once a single land mass. The continents moved to their current positions on plates driven by energy from Earth's interior. **S5.2L (6-8)**
Heat energy stored in the oceans and transferred by currents influence climate. A disruption of the circulation and temperature of the world's oceans would foster climate change and have environmental and economic consequences. **S5.2M (6-8)**
Constructive processes that build up the land and the destructive processes of weathering and erosion shape and reshape the land surface. **5.4D (6-8)**
Some Earth events such as El Nino, volcanism and global warming can affect the entire Earth system and are likely the result of complex interactions among Earth spheres. **5.4E (6-8)**
Heat energy stored in the oceans and transferred by currents influence climate. A disruption of the circulation and temperature of the world's oceans would foster climate change and have environmental and economic consequences. **S5.2M (6-8)**
Constructive processes that build up the land and the destructive processes of weathering and erosion shape and reshape the land surface. **5.4D (6-8)**
Some satellites allow scientists to observe, over time, large-scale changes in the geosphere as well as the development of short term weather events. **S5.3A (4-5)**
Global weather data from ground measurements, satellites and radar are recorded on maps, analyzed, and used to predict local weather. **S5.3A (6-8)**
Water from some natural sources is unfit to drink and requires the use of specialized technology to analyze and purify it. **S5.3B (6-8)**

Instructional Strategies and Performance Projects/Assessments Year Three - What is Culture?

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the three studies of *What Does it Mean to Be Human*? These lessons are shared each year with various levels of detail according to the children's development. Particular emphasis should be given to the parts of the story that reinforce the content standards being developed in the K-1st (Ages 5-7)study of *What Does it Mean to Be Human.* The same lessons will be shared in the 2nd—3rd (Ages 7-9) program expanding on concepts introduced at the K-1st (Ages 5-7)level. (See page 5 for full details of Montessori Great Lessons)

First Great Lesson - Coming of the Universe and the Earth
The Second Great Lesson: Coming of Life
The Third Great Lesson: Coming of Human Beings
The Fourth Great Lesson: The Story of Language
The Fifth Great Lesson: The Story of Numbers

Study 1 – The diversity of life and life processes/cycles in nature and in studies of human culture

Montessori lessons and materials related to:

- Great lessons/Cosmic Task
- The Universe Story
- Biographical sketches of people throughout history
- Timelines of humans on the earth
- Study of Early Humans
- Science kits for possible use with this study
- Structure of Life – Relating the Structure of living things to their function.

Various lessons from the Delaware Recommended Curriculum leading to an understanding of cultures past and present might include:

- Thinking Chronologically (Word)
- Interpreting the Past – Dueling Documents (Word)
- Culture & Civilization (Word)

Classroom projects leading performance assessments as listed below:

- All cultures have heroes. Students will demonstrate an understanding of the role that heroes play in a culture creating a Living Museum of historical figures through history, writing Biographies of a personal hero, or creating Poetry Collections about an historical figure.
- Create a culture including traditions, passages and rituals as people move through the various stages of life, and artistic and musical aspects to the culture.
- Trace the physical characteristics of a cultural group explaining how those attributes are passed from one generation to the next genetically and demonstrating and understanding that physical characteristics have created boundaries for people's interactions across cultures.
- Recognize that there are variations among organisms of the same kind. Observe organisms of the same kind and describe how their physical appearances differ.
- Compare the similarities and differences of offspring to their parents (e.g. crayfish, bean sprouts). Know that offspring receive characteristics from both parents.
- Sketches comparing similarities and differences between various species of animals
- Recognize that some characteristics acquired by the parents are not inherited by the offspring
- Research about animals: kingdom, phylum, genus, species. Sort and group plants and animals according to similarities in structures or functions of structures. Explain why the plants and animals have been grouped in this manner.
- Describe how similar structures found on different organisms (e.g., eyes, ears, mouths) have similar functions and enable those organisms to survive and reproduce in different environments (e.g., eyes of owls versus eyes of crustaceans).
- Research the life cycle of an organism. Diagram the life cycle of the organism and describe how the organism changes over time. Compare the life cycle of this organism to the life cycle of various other organisms including humans. Recognize that all organisms go through a life cycle. Identify factors in the ecosystem that are bene-

ficial or harmful to the organisms at various stages in their life cycles.

Study 2 – Earth's Dynamic Systems/ Earth Regions/ and the impact on Culture

Montessori lessons and materials related to:

- Great lessons/Cosmic Task
- The Universe Story
- Biographical sketches of people throughout history
- Timelines of humans on the earth
- Study of Early Humans Fundamental Needs
- Work of Water
- Landforms
- Earth models
- Water Cycle
- Functional Geography (Hydrosphere)
- Science kits for possible use with this study
- Land & Water Examining the rate at which forces change the earth

Various lessons from the Delaware Recommended Curriculum leading to an understanding of cultures past and present might include:

- Thinking Chronologically (Word)
- Interpreting the Past – Dueling Documents (Word)
- Culture & Civilization (Word)
- Our Community: Profiles and Connections (Word)
- Conflict & Cooperation (Word)

Classroom projects leading to the performance assessments as listed below:

- Models of the Earth showing the Earth's layers
- Natural Resources Presentations, their location and distribution throughout the world
- Recycling Process Presentations
- Water Fair showcasing:
  - ◊ water's impact on the world
  - ◊ science experiments and the water cycle demonstrations
  - ◊ magazine with poetry, articles etc. about water and its uses, distribution, etc.
- Scale models of various architectural structures from various cultures demonstrating how the design and materials used in the structure are related to the region, the impact of weather and other earth systems, and the resources available to a culture. This project has several sub-studies that might include:
  - ◊ Neighborhood/local architecture (notice, compare, contrast)
  - ◊ Study of Frank Lloyd Wright and other architects and their work
  - ◊ Scale models of the school, student's bedrooms, homes
  - ◊ Architecture through time—presentations on various types of architecture in the world from Ancient Greece to the present

Sample Understanding by Design (UbD) Template: will be used by teachers to develop units that support the integration of the Montessori Curriculum across subject areas, to tie to the Common Core Standards, and to focus on the big ideas, essential questions, and transfer skills. The following was written for use in the 9-12 classroom.

Title: What does it mean to be human?		Subject: 9-12 Culture Plan
Topic:	Grade: 4-6	Designer:

Stage 1—Desired Results

Established Goals
Demonstrate empathy for others.
Demonstrate knowledge and appreciation for self
Reflect on selves and their impact on others
Interact with others using respect and compassion

Transfer Goals
Students will be able to independently use their understanding to acknowledge similarities and differences among animal species
Students will understand that their daily choices affect the environment on a local and global scale.
Students will leave WMS with a commitment to have a positive impact on the world through active service.

Enduring Understandings*: Students will understand that…*
though they are a small part of the global community they can make an impact on the world.
all living things exist on a cellular and systemic level
everything they do affects everything else in the world. We do not operate in a vacuum.

Essential Questions:
What makes something alive?
How do the choices I make impact the world around me?

Knowledge:
Similarities and differences between humans and another species
Components of plant and animal cells
People throughout the world have different choices and resources available to them

Skills:
Microscope use
Familiarity with various graphic organizers (compare-contrast, Venn diagram, etc)
Collaborate with others
Successfully participate in the research process

Stage 2 - Assessment Evidence

Performance Tasks: *Students will need to show their learning by:*
Share animal research including phylum, genus, species
Complete independent research project related to the essential question.
Demonstrate the ability to use the microscope and other instruments to examine plant and animal specimens.
Demonstrating acceptance and understanding of individuals and others in their local community during their school day and through community service.
Participation in the 6th grade project from GCAP.

Key Criteria: *Performance is judged in terms of:*
Empathy, Compassion , Writing, Researching, Presentation

Other Evidence:
Accurate of their animal, its characteristics, habitat as well as similarities and differences with other animals; Self assessment rubric ; Self-reflection;
Knowledgeable presentation of independent research topic

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

11:30	Shayla and Sam's class goes outside for recess.			
12:00	Shayla and Sam's class has lunch together in their classroom. The teachers act as role models for proper table manners and decorum. Each child cleans up her/his own spot and classroom helpers take out the trash and sweep the floor after lunch.			
12:30	Shayla listens to the teacher read	Sam listens to the book and participates in the class discussion.	Teacher reads aloud a non-fiction text about the life cycle of a Monarch butterfly. She asks the essential question "What is a life cycle" and the class participates in a discussion.	Teacher has a break.
1:00	Both children have art with the rest of their class.		Teacher has a break.	Teacher accompanies the class to art.
1:50	Shayla has a lesson on the life cycle of the Monarch butterfly and their migration.	Sam has a lesson on the parts of a butterfly.	Teacher gives the kindergarteners a lesson on the life cycle of the Monarch butterfly and uses the continent map to show the Monarch's migration.	Teacher gives the first graders a lesson on the parts of a butterfly.
2:30	As a follow up to the science lesson, Shayla completes a Monarch butterfly life cycle booklet. She colors and labels each stage of the life cycle using a Monarch model for reference.	As a follow up to the lesson Sam illustrates and labels the parts of a butterfly. He has sample a butterfly and charts for reference.	Teachers monitor their groups as they do the follow-up science activity, offering assistance and guidance when needed.	Teachers monitor their groups as they do the follow-up science activity, offering assistance and guidance when needed.
3:15	Shayla, Sam and their class come to circle for a reflection of the day discussion and good-bye song then collect their belongings and follow dismissal procedures.	Shayla, Sam and their class come to circle for a reflection of the day discussion and good-bye song then collect their belongings and follow dismissal procedures.	Teacher leads the closing meeting and dismisses the children.	Teacher goes to her/his dismissal station.

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program levels, K-1st (5-7). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Shayla Tier 1	Sam Tier 2	Teacher 1	Teacher 2
8:00	Shayla is greeted by her teachers and classmates. A 1st grade student reads the morning message to Shayla and then she settles in with a book to read (SSR) as the rest of her class arrives and settles	Sam is greeted by Teacher 1 at the door. A student buddy escorts Sam to the morning message board. Together they read the morning message, adding both of their responses to the prompt. They take note of the daily schedule and take out books for independent reading and settle in for SSR as the rest of the class arrives.	Teacher1 greets students at the door as they arrive.	Teacher walks around, stopping to have individual reading conferences with students and records anecdotal notes in record book.
8:15	Shayla hears a bell rung by a classmate and takes that as a signal to put her book away and come to a class circle. During morning meeting she participates in a greeting activity, shares news, and hears about the day's activities.	Sam is prompted by a teacher to join morning meeting where he participates in the greeting activity, shares news, and hears about the day's activities.	Teacher helps the classroom leader for the day manage the morning meeting. The class checks the attendance, does a group greeting, monitors and graphs the weather, does some stretches and sings The Continent Song. Teacher gives the class an overview of the day.	Teacher has prepared a lesson on the continents. The class reviews what they remember and, together, label the continents on the classroom's puzzle map. The teacher has animal figures to be matched to the continents and there is a class discussion about the pet guinea pigs origins in South America. The group is dismissed to work.
8:45	Shayla consults her work plan and chooses to do math work first. She finds a place to work near her friend, Marcus, and then selects a box of bead bars and some prepared math problem "tickets" from a shelf.	Sam chooses a slicing banana "practical life" work, after slicing the fruit he carefully offers some of his classmates a serving.	Teacher gathers a group of three children for a language/reading lesson. The children bring their reading book to a small rug on the floor for the lesson.	Teacher helps the children settle into their work choices and offers any necessary clarification or guidance. She then takes note of the choices the children have made on a class record sheet. If a particular challenge is noted by the teacher, note is made of that on the individual child's record sheet.
9:15	Having finished her first work choice, Shayla consults her work plan and chooses to work on the story she had begun the day before. When Teacher 2 invites her to a lesson she puts a card out where she was working: Shayla is working here.	Sam is the prompted to consult his daily work plan and chooses to do his daily journal entry in his Draw and Write notebook. Teacher 1 encourages him to use spacing between his words as he phonetically encodes his ideas.	Teacher monitors the individual choices the children are making and keeps records thereof and of any challenges, anecdotes, or questions she notes about individual children. She checks work completed thus far in the morning.	Teacher invites Shayla and the rest of the Kindergarteners for a lesson on making a "hemisphere map." The group reviews the continent names and locations and is then shown how to trace, perforate out, and glue puzzle pieces together to make one's own continent map.

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

9:40	Shayla is now very interested in making a hemisphere map. She sees that "work" is already taken, and settles back in to her writing.	Sam gets out his word study work and begins to use manipulatives to spell 3-letter short vowel words and then write them in his word study notebook.	Teachers confer briefly about what they have noted thus far in the morning.	
10:00	Shayla invites Marcus to join her and the two of them have snack. They serve themselves, chat quietly, and then get a sponge and clean up their snack spot. Shayla sees that the continent work is now available and hurries to take it from the shelf and begin work. She carefully places the puzzle piece of Africa on a green piece of paper and traces around it. She places the trace on a thick felt map and uses a perforating tool to make holes all along her pencil line very close together. When she has perforated the outline of Africa, she carefully tears it out and excitedly gets up to show Teacher 2 what she has done. She then begins work on Europe.	Sam participates in a group guided reading lesson focused on using context to aid in his decoding process. After the lesson, he goes off with a peer to "Buddy read" a familiar, repetitive text to one another, each having an opportunity to practice both listening and reading skills.	Teacher calls the first of a succession of small groups over for a leveled reading group or literature circle.	Teacher sees that Shayla has left one work out and selected another. She points this out to Shayla, who packs her writing work up and then settles into her continent map. She goes back to monitoring and supervising the classroom.
10:30	Shayla puts away the continent work, having perforated 3 of the continents and put them into her work cubby to be added to later. Her work plan consulted, she selects a "word box" from the language shelf and begins to build three-letter phonetic words with movable letters to spell the names of the objects in the box. Teacher 1 stops by her work.	Sam is prompted by Teacher 2 to do a follow- up math activity from a lesson the previous day. Sam begins to complete his 3-digit addition work with a partner.	Teacher sees Shayla's work and sits down at her mat. She goes through the objects with her and asks Shayla to close her eyes. She moves the objects around and Shayla laughs and puts them back with the words they match. Teacher asks Shayla to read the words she has spelled and then Shayla says she'll write them, too. Teacher moves on.	Teacher calls the first graders over for a lesson on making a continent booklet. They will write a fact about each continent using the resources in the classroom and will create a 7-page continent booklet.
11:00	Shayla is invited to a place value math lesson with Teacher 1. She brings her math notebook to the lesson.		Teacher 1 invites a group of children to a place value lesson involving "golden beads" and "the stamp game."	Teacher 2 monitors the classroom.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program levels, 2nd-3rd (Ages 7-9). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Jarod Tier 1 Core Instruction	Jessie Tier 2 Intervention	Teacher 1	Teacher 2
8:00	Jarod is greeted by Teacher 1 at the door and reads the morning message, which asks him to name a cycle or system that he or classmates use in the classroom regularly. He adds his response to the prompt. He takes note of the daily schedule and takes out a book for independent reading and settles in for SSR as the rest of the class arrives and settles.	Jessie is greeted by Teacher 1 at the door. A student buddy escorts Jessie to the morning message board. Together they read the morning message, which asks them to name a cycle or system that she or classmates use in the classroom regularly. They add their responses to the prompt. They take note of the daily schedule and take out books for independent reading and settle in for SSR as the rest of the class arrives.	Teacher 1 greets the students as they arrive. After the students have arrived, she takes a moment to go over Jessie's work-plan with her. Together they prioritize her assignments for the day.	Teacher 2 walks around, stopping to have individual reading conferences with students, recording students' progress towards goals in her anecdotal record book.
8:30	Jarod is the leader for the day. He rings a bell to signal that SSR is over and morning meeting is beginning. He runs the circle, choosing a greeting, checking attendance, choosing a game for the class, and reading classroom announcements. He facilitates the meeting as 3 students share their "news" for the day.	Jessie joins morning circle, participating in the day's greeting and activity. She raises her hand to share her personal news about her hamster, and is given a silent signal from Teacher 2, reinforcing the behavior of raising her hand. Jessie hears about the day's activities.	Teacher 1 offers any guidance to the class leader and overseas the morning circle.	Teacher 2 joins and participates in the morning meeting.
8:50	Jarod is invited to bring his math notebook and a pencil to a multiplication lesson.	Jessie gets out her word study work and begins to use hands-on manipulatives to spell words with *long a letter patterns* and then writes them in her word study notebook.	Teacher 1 gathers a small group of children for a multiplication lesson using the Montessori checkerboard	Teacher 2 helps the children settle into their work choices and offers any necessary clarification or guidance. She writes anecdotal comments of students' work choices and progress towards individual goals.
9:15	Jarod and a classmate choose to continue with multiplication work. They work on a problem together, check their work and determine that they have the wrong product. They attempt the problem again with Teacher 1 overseeing.	Jessie is invited to a math lesson about division with Teacher 2. She brings her math notebook to the lesson, she sits directly across from Teacher 2 to allow the most direct view of the materials and the teacher can easily maintain eye-contact with Jessie.	Teacher 1 monitors the individual choices the children are making and keeps records thereof and of any challenges, anecdotes, or questions she notes about individual children. S/he sees that Jarod and his partner need help and oversees their work. S/he checks work completed thus far in the morning.	Teacher 2 invites 5 students of mixed age for a hands-on division lesson using the Montessori racks and tubes.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

9:45	Jarod consults his work plan and decides to work on botany work. He illustrates and labels the parts of a flower as follow-up to a lesson he had the day before. He has sample flowers and charts for reference. His understanding of the parts of the flower will be background knowledge for the next lesson where he uses this information to describe the life cycle of the plant	Jessie continues to complete her division work with a partner.	Teachers 1 and 2 confer briefly about what they have noted thus far in the morning	
10:15			Teacher 1 calls a small group over for a guided reading group. At the end of the lesson she releases the students to practice their reading fluency with a partner. She strategically moves between the pairs, listening and noting their fluency progress.	Teacher 2 checks work completed by the children thus far in the morning, and is available for help, guidance, and intercession if necessary. S/he stops by Jarod's work space and interviews him about the parts of the flower and what each does then makes note of this on Jarod's record sheet.
10:30	Jarod chooses a prefix game that he completes with a partner from his word study group, writing down the new words he has created throughout the game.	Jessie goes to a small group guided reading lesson focused on reading fluency. After the lesson, she goes off with a peer to practice re-reading a story aloud with proper intonation and inflection.		
10:45	Jarod revises and edits his readers' response notebook entry in preparation for a lesson he has in the afternoon for literature circle.	Jessie participates in a brief, small group lesson with Teacher 2 that includes direct, systematic, multisensory instruction on syllables.	Teacher 1 checks work completed by the children thus far in the morning,, and is available for help, guidance, and intercession if necessary.	Teacher 2 gives a brief, small group lesson to children who are struggling to acquire reading
11:00	Jarod attends a whole group Writers' Workshop mini lesson focused on sentence fluency. He then takes his writing folder and continues to write a story that he previously started.	Jessie attends a whole group Writers' Workshop mini lesson about sentence fluency. She then goes with Teacher 1 and a small group of students for targeted support with sentence combining.	After the whole group Writers' Workshop mini lesson about sentence fluency, Teacher 1 takes a small group of three students and follows up with targeted support about sentence combining.	Teacher 2 gives a whole group Writers' Workshop mini-lesson focusing on sentence fluency. She then walks around among the remaining students and holds individual writing conferences with some of them.
11:45	The class goes outside for recess		Teacher 1 has a break.	Teacher 2 accompanies the class to recess.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

12:15	Class has lunch together in their classroom. The teachers act as role models for proper table manners and decorum. Each child cleans up her/his own spot and classroom helpers take out the trash and sweep the floor after lunch.			
12:45	Jarod participates in the teacher-led read-aloud with the whole class.	Jessie participates in the teacher-led read-aloud with the whole class, making sure to sit directly in front of the teacher.	Teacher 1 reads aloud, modeling think-aloud strategies that good readers use to construct meaning, using the book.	Teacher 2 has a break.
1:15	Both children have music with the rest of the class.		The teachers take an opportunity to compare notes from the morning and make plans for individual students for the following day.	
2:00	Jarod goes to a literature circle where he turns in his readers' response journal. He and his group discuss how they used prediction during their last reading and how they will confirm or change their prediction based on today's reading. The students decide they will read the next two chapters before meeting again. They disburse and begin to read.	Jessie and a group of ten other students participate in a lesson demonstrating and building the rock cycle. Jessie meets briefly with Teacher 2 to go over her homework assignments.	Teacher 1 leads a literature circle, focusing on prediction as a comprehension strategy.	Teacher 2 presents a lesson demonstrating the rock cycle. The students then decide they want to build the rock cycle themselves. They discuss with the teacher how this could be accomplished.
3:00	Both children collect their belongings and follow dismissal procedures.		Teacher 1 dismisses the children.	Teacher 2 goes to her/his dismissal station.

A Day in Elizabeth & Adam's Montessori Life 4th-6th (Ages 9-12) Classroom (Upper Elementary)

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program level 4th—6th (ages9-12). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Elizabeth—Tier 1	**Adam**—Tier 2	**Teacher 1**	**Teacher 2**
8:00	Elizabeth enters the classroom where she is greeted by her teachers and checks in with some of her classmates. She reads the morning message, adding her response to the prompt. She consults her weekly plan and chooses word study as her first work choice.	Adam enters the classroom and is greeted by the teachers. A student buddy accompanies Adam to the morning message, where they share the message and write their responses to the prompt. Adam and his buddy look over their weekly work plans, deciding to work as partners on math. They get the materials needed to solve the fraction work, settle in at a work space and, using materials and journals, solve the five problems that were assigned.	Teacher 1 greets the children as they enter the classroom for the day. S/he then begins meetings with the children regarding their work choices. As needed s/he refocuses children who need assistance to stay on task.	Teacher 2 greets the children as they enter the classroom for the day. S/he then meets individually with children regarding their work choices. As needed, s/he refocuses children who need assistance to stay on task.
8:30	Elizabeth joins her class for the morning meeting.	Adam leaves his work neatly on the rug, joining the class for morning meeting. He takes his seat next to a teacher.	Teacher 1 attends morning meeting, taking a seat between two children who may need support during this time.	Teacher 2 attends the meeting. A student reads the morning message aloud. Children respond verbally, sharing their written contributions to the prompt. S/he then presents a lesson on plate tectonics and, using Montessori materials, demonstrates what the shifting of the earth can look like.
8:50	Elizabeth and several classmates go into the adjoining computer lab to look at footage of earthquakes and computer imaging of tectonic plates shifting. They record their observations and illustrate them in their science notebooks.	Adam accompanies Teacher 1 to a lesson on division of angles. He is seated preferentially next to the teacher.	Teacher 1 invites a group of six children to a lesson on division of angles. S/he has rulers, protractors, and angle rulers available for children's use during the lesson.	Teacher 1 invites a group of six children to a lesson on division of angles. S/he has rulers, protractors, and angle rulers available for children's use during the lesson.
9:20	Elizabeth checks her weekly work plan and decides to write her Reader's Response entry about Hatchet, the book she is currently reading in her literature circle.	Adam continues to do the follow-up assignment given at the lesson. He sits near the teacher, working with him/her guidance. As he completes the work he asks for feedback from the teacher.	Teacher 1 calls another group of mixed-age students for a math lesson on dividing fractions. S/he lays out Montessori materials, writes the problems on a whiteboard while waiting for the group to gather.	Teacher 2 calls a group of children to a rug for a literature circle.

A Day in Elizabeth & Adam's Montessori Life 4th/5th/6th Classroom (Upper Elementary)

10:00	Elizabeth uses this morning work time to complete assigned work from past lessons as well as to begin work assigned today. She reviews her work plan to determine how to prioritize her work and time, choosing to complete earlier assigned work first. At the end of work time she hands in completed work, filing the other assignments for later work times.	Adam is guided by a teacher to review his work plan and choose an assignment to focus on for this work time. He is seated at a desk, away from other students/ distractions. During the work time, a teacher checks with him to ensure his progress towards completion of this assignment.	Teacher 1 guides students as they choose work for independent work time. As students work, s/he checks in with them to be sure they are on task, working to meet their goals, and offering support where needed.	Teacher 2 notes that Elizabeth has taken out decimal fraction work and checks in with her. She interviews Elizabeth and has her walk through the process she is using to complete this work. This allows her to assess understanding and determine the next lesson for Elizabeth. She moves on to check on progress of other students in the class.
11:00	Elizabeth participates in writers' workshop focused on the revision of memoirs the group has been writing. She and a group-mate listen to each others' pieces, offer suggestions, and then begin to revise their work. Elizabeth chooses to share her writing with the larger group when they come back to the circle.	Adam participates in writers' workshop focused on revision of memoirs. He is assigned to work with Teacher 2 and one other student to revise for the trait of organization. Teacher 2 models the revision process with the students, offering support and guidance as they work to gain these skills.	Teacher 1 calls Elizabeth and some classmates for a writers' workshop mini-lesson on revision for the trait of organization. As peer conferences occur, she listens to students' conferences, asking questions and offering guidance as needed.	Teacher 2 observes the mini-lesson, noting children's comments. As students are dismissed to work with a group on the revision process, she assists two children who need additional writing support.
11:55	Elizabeth does her classroom job of preparing the tables for lunch.	Adam does his classroom job of caring for the classroom pet.	Teacher 1 manages the classroom as each student contributes to the class by doing his/her job.	Teacher 2 gathers equipment and prepares to lead children outdoors for recess.
12:00	The class goes outside for recess			
12:30	The entire class has lunch			
1:00	Elizabeth participates in read aloud with the entire class.	Adam participates in the read aloud, sitting next to the teacher.	Teacher 1 reads aloud, encouraging the children to notice the organization of the book, relating it to their earlier lesson.	Teacher 2 readies the room for afternoon lessons.
1:30	Elizabeth attends a math lesson, continuing her work with decimal fractions. Five other students join her.	Adam is invited to a word study lesson on doubling the final consonant before adding a suffix.	Teacher 1 invites students to a word study lesson, laying out the words and asking children to note patterns.	Teacher 2 invites students to a math lesson on decimal fractions, using the Montessori decimal board to order the numbers.
2:15	Elizabeth and her class go to PE.	Adam joins the class in PE.	Teacher 1 walks the children to the gym, using the remainder of this time to confer with Teacher 2 regarding the day and tomorrow's lessons.	Teacher 2 makes sure the classroom is ready for dismissal upon the students' return. The remainder of the time is used to confer with Teacher 2 regarding the day and tomorrow's lessons.
3:00	Elizabeth and her class collect their belongings and follow dismissal procedures.	With a teacher's reminder, Adam collects his belongings and follows dismissal procedures with the class.	Teacher 1 issues reminders as needed for the students in order to prepare them for dismissal.	Teacher 2 goes to her dismissal station.

Table of Contents

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a "whole" for the study of mathematics. These lessons are shared each year with various levels of detail according to the children's development. Particular emphasis should be given to the parts of the story that reinforce the content standards being developed in a given year. The same lessons will be shared in the 2nd—3rd (Ages 7-9) program expanding on concepts introduced at the K-1st (Ages 5-7) level.

First Great Lesson - Coming of the Universe and the Earth

The First Great Lesson focuses on the origins of the universe and our own planet. Using impressionistic charts and experiments directly related to the basic physical properties of matter a foundation is made for the future study of physics, chemistry, astronomy and geology. **This lesson leads to the study of:**

- Astronomy: solar system, stars, galaxies, comets, constellations
- Meteorology: wind, currents, weather, fronts, erosion, water cycle, clouds, glaciers
- Chemistry: states of matter, changes, mixtures, reactions, elements, atoms, periodic table, compounds, molecules, chemical formulas, equations, lab work, experimentation
- Physics: magnetism, electricity, gravity, energy, light, sound, heat, friction, motion, experimentation
- Geology: types of rocks, minerals, land forms, volcanoes, earthquakes, plate tectonics, ice ages, eras of the earth
- Geography: maps, globes, latitude/longitude, climates, land/water form names, continent and country research

The Second Great Lesson: Coming of Life

The Second Great Lesson involves the coming of life. This lesson revolves around the Timeline of Life, a long chart with pictures and information about microorganisms, plants, and animals that have lived (or now live) on the earth. The great diversity and interconnectedness of various organisms is emphasized.

This lesson leads to the study of:

- Biology: cells, organized groups, five kingdoms, specimens, dissection, observation, use of microscope
- Botany: study of plants, classification, functions, parts of plants (seed, fruit, leaf, stem, root, flower), types of plants
- Habitats: location, characteristics, food chains/webs, symbiosis, adaptation, ecosystems, conservation
- Ancient Life: eras of the earth, evolution, extinction, fossil records, excavation
- Animals: classification, needs, similarities/differences, human systems, nutrition, hygiene

The Third Great Lesson: Coming of Human Beings

The next Great Lesson is the Coming of Human Beings. This focuses on the three gifts that make humans special: a mind to imagine, a hand to do work, and a heart that can love. This lesson will lead children to explore the beginning of civilizations and the needs of early humans.

This lesson leads to the study of:

- History: timelines, prehistory, ancient civilizations, world history, history of specific countries and continents
- Culture: art, artists, music, composers, dance, drama, architecture, design, philosophy, religion, grace and courtesy
- Social Studies: current events, government, economics, commerce, volunteering & charity
- Discovery & Invention: scientists, inventors, scientific method, inventions, simple machines

Montessori Great Lessons

The Fourth Great Lesson: The Story of Writing—The Fourth Great Lesson is the Story of Writing, sometimes called Communication in Signs. In this lesson, the story of the development of the written alphabet is told, with an emphasis on the incredible ability that humans have of committing their thoughts to paper. Included in the story are pictographs, symbols, hieroglyphs, early alphabets, and the invention of the printing press.

This lesson leads to the study of:

- Reading: literature, poetry, non-fiction, myths and folk tales, authors, reading comprehension, reading analysis, literary terms
- Writing: elements of style, function, voice, composition, letter writing, research, study skills
- Language: origins of spoken language, foreign languages, history of languages, speech, drama
- Structure: alphabets, bookmaking, grammar, punctuation, sentence analysis, word study, figures of speech

The Fifth Great Lesson: The Story of Numbers—The last of the lessons is the Fifth Great Lesson: The Story of Numbers, also called the History of Mathematics. This lesson begins with the earliest civilizations, who often only had "one", "two", and "more than two" as their numeric system. It continues with a look at different numbering systems throughout the centuries, culminating in the decimal system that we use today.

This lesson leads to the study of:

- Mathematics: operations, fractions, decimals, multiples, squares, cubes, percentages, ratio, probability, intro to algebra
- Numbers: origins of numbers and systems, bases, types of numbers, scientific notation, mathematicians
- Geometry: congruency, similarity, nomenclature of lines, angles, shapes, solids, measurement, theorems
- Application: story problems, measurement, estimation, graphs, patterning, rounding, money concepts

Clearly, these five stories encompass an enormous amount of information about the origins of the world around us. When each story is shared, it should never be left alone - there should always be further study open to the children so that the story becomes the springboard but not the focus. The stories can be referred to throughout the year when new topics are introduced, as a way of providing unity and cohesion to such a wide variety of studies.

More information may be found on the **Montessori For Everyone** Website:

http://www.montessoriforeveryone.com/The-Five-Great-Lessons_ep_66-1.html

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program levels, K-1st (5-7). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Shayla	Sam	Teacher 1	Teacher 2
	Tier 1	**Tier 2**		
8:00	Shayla is greeted by her teachers and classmates. A 1st grade student reads the morning message to Shayla and then she settles in with a book to read (SSR) as the rest of her class arrives and settles	Sam is greeted by Teacher 1 at the door. A student buddy escorts Sam to the morning message board. Together they read the morning message, adding both of their responses to the prompt. They take note of the daily schedule and take out books for independent reading and settle in for SSR as the rest of the class arrives.	Teacher1 greets students at the door as they arrive.	Teacher walks around, stopping to have individual reading conferences with students and records anecdotal notes in record book.
8:15	Shayla hears a bell rung by a classmate and takes that as a signal to put her book away and come to a class circle. During morning meeting she participates in a greeting activity, shares news, and hears about the day's activities.	Sam is prompted by a teacher to join morning meeting where he participates in the greeting activity, shares news, and hears about the day's activities.	Teacher helps the classroom leader for the day manage the morning meeting. The class checks the attendance, does a group greeting, monitors and graphs the weather, does some stretches and sings The Continent Song. Teacher gives the class an overview of the day.	Teacher has prepared a lesson on the continents. The class reviews what they remember and, together, label the continents on the classroom's puzzle map. The teacher has animal figures to be matched to the continents and there is a class discussion about the pet guinea pigs origins in South America. The group is dismissed to work.
8:45	Shayla consults her work plan and chooses to do math work first. She finds a place to work near her friend, Marcus, and then selects a box of bead bars and some prepared math problem "tickets" from a shelf.	Sam chooses a slicing banana "practical life" work, after slicing the fruit he carefully offers some of his classmates a serving.	Teacher gathers a group of three children for a language/reading lesson. The children bring their reading book to a small rug on the floor for the lesson.	Teacher helps the children settle into their work choices and offers any necessary clarification or guidance. She then takes note of the choices the children have made on a class record sheet. If a particular challenge is noted by the teacher, note is made of that on the individual child's record sheet.
9:15	Having finished her first work choice, Shayla consults her work plan and chooses to work on the story she had begun the day before. When Teacher 2 invites her to a lesson she puts a card out where she was working: Shayla is working here.	Sam is the prompted to consult his daily work plan and chooses to do his daily journal entry in his Draw and Write notebook. Teacher 1 encourages him to use spacing between his words as he phonetically encodes his ideas.	Teacher monitors the individual choices the children are making and keeps records thereof and of any challenges, anecdotes, or questions she notes about individual children. She checks work completed thus far in the morning.	Teacher invites Shayla and the rest of the Kindergarteners for a lesson on making a "hemisphere map." The group reviews the continent names and locations and is then shown how to trace, perforate out, and glue puzzle pieces together to make one's own continent map.

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

9:40	Shayla is now very interested in making a hemisphere map. She sees that "work" is already taken, and settles back in to her writing.	Sam gets out his word study work and begins to use manipulatives to spell 3-letter short vowel words and then write them in his word study notebook.	Teachers confer briefly about what they have noted thus far in the morning.	
10:00	Shayla invites Marcus to join her and the two of them have snack. They serve themselves, chat quietly, and then get a sponge and clean up their snack spot. Shayla sees that the continent work is now available and hurries to take it from the shelf and begin work. She carefully places the puzzle piece of Africa on a green piece of paper and traces around it. She places the trace on a thick felt map and uses a perforating tool to make holes all along her pencil line very close together. When she has perforated the outline of Africa, she carefully tears it out and excitedly gets up to show Teacher 2 what she has done. She then begins work on Europe.	Sam participates in a group guided reading lesson focused on using context to aid in his decoding process. After the lesson, he goes off with a peer to "Buddy read" a familiar, repetitive text to one another, each having an opportunity to practice both listening and reading skills.	Teacher calls the first of a succession of small groups over for a leveled reading group or literature circle.	Teacher sees that Shayla has left one work out and selected another. She points this out to Shayla, who packs her writing work up and then settles into her continent map. She goes back to monitoring and supervising the classroom.
10:30	Shayla puts away the continent work, having perforated 3 of the continents and put them into her work cubby to be added to later. Her work plan consulted, she selects a "word box" from the language shelf and begins to build three-letter phonetic words with movable letters to spell the names of the objects in the box. Teacher 1 stops by her work.	Sam is prompted by Teacher 2 to do a follow-up math activity from a lesson the previous day. Sam begins to complete his 3-digit addition work with a partner.	Teacher sees Shayla's work and sits down at her mat. She goes through the objects with her and asks Shayla to close her eyes. She moves the objects around and Shayla laughs and puts them back with the words they match. Teacher asks Shayla to read the words she has spelled and then Shayla says she'll write them, too. Teacher moves on.	Teacher calls the first graders over for a lesson on making a continent booklet. They will write a fact about each continent using the resources in the classroom and will create a 7-page continent booklet.
11:00	Shayla is invited to a place value math lesson with Teacher 1. She brings her math notebook to the lesson.		Teacher 1 invites a group of children to a place value lesson involving "golden beads" and "the stamp game."	Teacher 2 monitors the classroom.

A Day in Shayla and Sam's Montessori Life—Kindergarten and First Grade

11:30	Shayla and Sam's class goes outside for recess.			
12:00	Shayla and Sam's class has lunch together in their classroom. The teachers act as role models for proper table manners and decorum. Each child cleans up her/his own spot and classroom helpers take out the trash and sweep the floor after lunch.			
12:30	Shayla listens to the teacher read	Sam listens to the book and participates in the class discussion.	Teacher reads aloud a non-fiction text about the life cycle of a Monarch butterfly. She asks the essential question "What is a life cycle" and the class participates in a discussion.	Teacher has a break.
1:00	Both children have art with the rest of their class.		Teacher has a break.	Teacher accompanies the class to art.
1:50	Shayla has a lesson on the life cycle of the Monarch butterfly and their migration.	Sam has a lesson on the parts of a butterfly.	Teacher gives the kindergarteners a lesson on the life cycle of the Monarch butterfly and uses the continent map to show the Monarch's migration.	Teacher gives the first graders a lesson on the parts of a butterfly.
2:30	As a follow up to the science lesson, Shayla completes a Monarch butterfly life cycle booklet. She colors and labels each stage of the life cycle using a Monarch model for reference.	As a follow up to the lesson Sam illustrates and labels the parts of a butterfly. He has sample a butterfly and charts for reference.	Teachers monitor their groups as they do the follow-up science activity, offering assistance and guidance when needed.	Teachers monitor their groups as they do the follow-up science activity, offering assistance and guidance when needed.
3:15	Shayla, Sam and their class come to circle for a reflection of the day discussion and good-bye song then collect their belongings and follow dismissal procedures.	Shayla, Sam and their class come to circle for a reflection of the day discussion and good-bye song then collect their belongings and follow dismissal procedures.	Teacher leads the closing meeting and dismisses the children.	Teacher goes to her/his dismissal station.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program levels, 2nd-3rd (Ages 7-9). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Jarod	Jessie	Teacher 1	Teacher 2
	Tier 1 Core Instruction	**Tier 2 Intervention**		
8:00	Jarod is greeted by Teacher 1 at the door and reads the morning message, which asks him to name a cycle or system that he or classmates use in the classroom regularly. He adds his response to the prompt. He takes note of the daily schedule and takes out a book for independent reading and settles in for SSR as the rest of the class arrives and settles.	Jessie is greeted by Teacher 1 at the door. A student buddy escorts Jessie to the morning message board. Together they read the morning message, which asks them to name a cycle or system that she or classmates use in the classroom regularly. They add their responses to the prompt. They take note of the daily schedule and take out books for independent reading and settle in for SSR as the rest of the class arrives.	Teacher 1 greets the students as they arrive. After the students have arrived, she takes a moment to go over Jessie's work-plan with her. Together they prioritize her assignments for the day.	Teacher 2 walks around, stopping to have individual reading conferences with students, recording students' progress towards goals in her anecdotal record book.
8:30	Jarod is the leader for the day. He rings a bell to signal that SSR is over and morning meeting is beginning. He runs the circle, choosing a greeting, checking attendance, choosing a game for the class, and reading classroom announcements. He facilitates the meeting as 3 students share their "news" for the day.	Jessie joins morning circle, participating in the day's greeting and activity. She raises her hand to share her personal news about her hamster, and is given a silent signal from Teacher 2, reinforcing the behavior of raising her hand. Jessie hears about the day's activities.	Teacher 1 offers any guidance to the class leader and overseas the morning circle.	Teacher 2 joins and participates in the morning meeting.
8:50	Jarod is invited to bring his math notebook and a pencil to a multiplication lesson.	Jessie gets out her word study work and begins to use hands-on manipulatives to spell words with *long a letter patterns* and then writes them in her word study notebook.	Teacher 1 gathers a small group of children for a multiplication lesson using the Montessori checkerboard	Teacher 2 helps the children settle into their work choices and offers any necessary clarification or guidance. She writes anecdotal comments of students' work choices and progress towards individual goals.
9:15	Jarod and a classmate choose to continue with multiplication work. They work on a problem together, check their work and determine that they have the wrong product. They attempt the problem again with Teacher 1 overseeing.	Jessie is invited to a math lesson about division with Teacher 2. She brings her math notebook to the lesson, she sits directly across from Teacher 2 to allow the most direct view of the materials and the teacher can easily maintain eye-contact with Jessie.	Teacher 1 monitors the individual choices the children are making and keeps records thereof and of any challenges, anecdotes, or questions she notes about individual children. S/he sees that Jarod and his partner need help and oversees their work. S/he checks work completed thus far in the morning.	Teacher 2 invites 5 students of mixed age for a hands-on division lesson using the Montessori racks and tubes.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

9:45	Jarod consults his work plan and decides to work on botany work. He illustrates and labels the parts of a flower as follow -up to a lesson he had the day before.	Jessie continues to complete her division work with a partner.	Teachers 1 and 2 confer briefly about what they have noted thus far in the morning	
10:15	He has sample flowers and charts for reference. His understanding of the parts of the flower will be background knowledge for the next lesson where he uses this information to describe the life cycle of the plant		Teacher 1 calls a small group over for a guided reading group. At the end of the lesson she releases the students to practice their reading fluency with a partner. She strategically moves between the pairs, listening and noting their fluency progress.	Teacher 2 checks work completed by the children thus far in the morning, and is available for help, guidance, and intercession if necessary. S/he stops by Jarod's work space and interviews him about the parts of the flower and what each does then makes note of this on Jarod's record sheet.
10:30	Jarod chooses a prefix game that he completes with a partner from his word study group, writing down the new words he has created throughout the game.	Jessie goes to a small group guided reading lesson focused on reading fluency. After the lesson, she goes off with a peer to practice re-reading a story aloud with proper intonation and inflection.		
10:45	Jarod revises and edits his readers' response notebook entry in preparation for a lesson he has in the afternoon for literature circle.	Jessie participates in a brief, small group lesson with Teacher 2 that includes direct, systematic, multisensory instruction on syllables.	Teacher 1 checks work completed by the children thus far in the morning,, and is available for help, guidance, and intercession if necessary.	Teacher 2 gives a brief, small group lesson to children who are struggling to acquire reading
11:00	Jarod attends a whole group Writers' Workshop mini lesson focused on sentence fluency. He then takes his writing folder and continues to write a story that he previously started.	Jessie attends a whole group Writers' Workshop mini lesson about sentence fluency. She then goes with Teacher 1 and a small group of students for targeted support with sentence combining.	After the whole group Writers' Workshop mini lesson about sentence fluency, Teacher 1 takes a small group of three students and follows up with targeted support about sentence combining.	Teacher 2 gives a whole group Writers' Workshop mini-lesson focusing on sentence fluency. She then walks around among the remaining students and holds individual writing conferences with some of them.
11:45	The class goes outside for recess		Teacher 1 has a break.	Teacher 2 accompanies the class to recess.

A Day in Jessie and Jarod's Montessori Life—Second & Third Grade

12:15	Class has lunch together in their classroom. The teachers act as role models for proper table manners and decorum. Each child cleans up her/his own spot and classroom helpers take out the trash and sweep the floor after lunch.			
12:45	Jarod participates in the teacher-led read-aloud with the whole class.	Jessie participates in the teacher-led read-aloud with the whole class, making sure to sit directly in front of the teacher.	Teacher 1 reads aloud, modeling think-aloud strategies that good readers use to construct meaning, using the book.	Teacher 2 has a break.
1:15	Both children have music with the rest of the class.		The teachers take an opportunity to compare notes from the morning and make plans for individual students for the following day.	
2:00	Jarod goes to a literature circle where he turns in his readers' response journal. He and his group discuss how they used prediction during their last reading and how they will confirm or change their prediction based on today's reading. The students decide they will read the next two chapters before meeting again. They disburse and begin to read.	Jessie and a group of ten other students participate in a lesson demonstrating and building the rock cycle. Jessie meets briefly with Teacher 2 to go over her homework assignments.	Teacher 1 leads a literature circle, focusing on prediction as a comprehension strategy.	Teacher 2 presents a lesson demonstrating the rock cycle. The students then decide they want to build the rock cycle themselves. They discuss with the teacher how this could be accomplished.
3:00	Both children collect their belongings and follow dismissal procedures.		Teacher 1 dismisses the children.	Teacher 2 goes to her/his dismissal station.

A Day in Elizabeth & Adam's Montessori Life 4th-6th (Ages 9-12) Classroom (Upper Elementary)

This chart provides a picture of the child's daily experience in the Montessori classroom at each of the three program level 4th—6th (ages9-12). This day demonstrates the integration of subject areas, the role of the teacher in small group and large group lessons, and the child's use of the work plan to support their self-directed learning.

	Elizabeth—Tier 1	**Adam—**Tier 2	**Teacher 1**	**Teacher 2**
8:00	Elizabeth enters the classroom where she is greeted by her teachers and checks in with some of her classmates. She reads the morning message, adding her response to the prompt. She consults her weekly plan and chooses word study as her first work choice.	Adam enters the classroom and is greeted by the teachers. A student buddy accompanies Adam to the morning message, where they share the message and write their responses to the prompt. Adam and his buddy look over their weekly work plans, deciding to work as partners on math. They get the materials needed to solve the fraction work, settle in at a work space and, using materials and journals, solve the five problems that were assigned.	Teacher 1 greets the children as they enter the classroom for the day. S/he then begins meetings with the children regarding their work choices. As needed s/he refocuses children who need assistance to stay on task.	Teacher 2 greets the children as they enter the classroom for the day. S/he then meets individually with children regarding their work choices. As needed, s/he refocuses children who need assistance to stay on task.
8:30	Elizabeth joins her class for the morning meeting.	Adam leaves his work neatly on the rug, joining the class for morning meeting. He takes his seat next to a teacher.	Teacher 1 attends morning meeting, taking a seat between two children who may need support during this time.	Teacher 2 attends the meeting. A student reads the morning message aloud. Children respond verbally, sharing their written contributions to the prompt. S/he then presents a lesson on plate tectonics and, using Montessori materials, demonstrates what the shifting of the earth can look like.
8:50	Elizabeth and several classmates go into the adjoining computer lab to look at footage of earthquakes and computer imaging of tectonic plates shifting. They record their observations and illustrate them in their science notebooks.	Adam accompanies Teacher 1 to a lesson on division of angles. He is seated preferentially next to the teacher.	Teacher 1 invites a group of six children to a lesson on division of angles. S/he has rulers, protractors, and angle rulers available for children's use during the lesson.	Teacher 1 invites a group of six children to a lesson on division of angles. S/he has rulers, protractors, and angle rulers available for children's use during the lesson.
9:20	Elizabeth checks her weekly work plan and decides to write her Reader's Response entry about Hatchet, the book she is currently reading in her literature circle.	Adam continues to do the follow-up assignment given at the lesson. He sits near the teacher, working with him/her guidance. As he completes the work he asks for feedback from the teacher.	Teacher 1 calls another group of mixed-age students for a math lesson on dividing fractions. S/he lays out Montessori materials, writes the problems on a whiteboard while waiting for the group to gather.	Teacher 2 calls a group of children to a rug for a literature circle.
10:00	Elizabeth uses this morning work time to complete assigned work from past lessons as well as to begin work assigned today. She reviews her work plan to determine how to prioritize her work and time, choosing to complete earlier assigned work first. At the end of work time she hands in completed work, filing the other assignments for later work times.	Adam is guided by a teacher to review his work plan and choose an assignment to focus on for this work time. He is seated at a desk, away from other students/ distractions. During the work time, a teacher checks with him to ensure his progress towards completion of this assignment.	Teacher 1 guides students as they choose work for independent work time. As students work, s/he checks in with them to be sure they are on task, working to meet their goals, and offering support where needed.	Teacher 2 notes that Elizabeth has taken out decimal fraction work and checks in with her. She interviews Elizabeth and has her walk through the process she is using to complete this work. This allows her to assess understanding and determine the next lesson for Elizabeth. She moves on to check on progress of other students in the class.

A Day in Elizabeth & Adam's Montessori Life 4th/5th/6th Classroom (Upper Elementary)

11:00	Elizabeth participates in writers' workshop focused on the revision of memoirs the group has been writing. She and a groupmate listen to each others' pieces, offer suggestions, and then begin to revise their work. Elizabeth chooses to share her writing with the larger group when they come back to the circle.	Adam participates in writers' workshop focused on revision of memoirs. He is assigned to work with Teacher 2 and one other student to revise for the trait of organization. Teacher 2 models the revision process with the students, offering support and guidance as they work to gain these skills.	Teacher 1 calls Elizabeth and some classmates for a writers' workshop mini-lesson on revision for the trait of organization. As peer conferences occur, she listens to students' conferences, asking questions and offering guidance as needed.	Teacher 2 observes the mini-lesson, noting children's comments. As students are dismissed to work with a group on the revision process, she assists two children who need additional writing support.
11:55	Elizabeth does her classroom job of preparing the tables for lunch.	Adam does his classroom job of caring for the classroom pet.	Teacher 1 manages the classroom as each student contributes to the class by doing his/her job.	Teacher 2 gathers equipment and prepares to lead children outdoors for recess.
12:00	The class goes outside for recess			
12:30	The entire class has lunch			
1:00	Elizabeth participates in read aloud with the entire class.	Adam participates in the read aloud, sitting next to the teacher.	Teacher 1 reads aloud, encouraging the children to notice the organization of the book, relating it to their earlier lesson.	Teacher 2 readies the room for afternoon lessons.
1:30	Elizabeth attends a math lesson, continuing her work with decimal fractions. Five other students join her.	Adam is invited to a word study lesson on doubling the final consonant before adding a suffix.	Teacher 1 invites students to a word study lesson, laying out the words and asking children to note patterns.	Teacher 2 invites students to a math lesson on decimal fractions, using the Montessori decimal board to order the numbers.
2:15	Elizabeth and her class go to PE.	Adam joins the class in PE.	Teacher 1 walks the children to the gym, using the remainder of this time to confer with Teacher 2 regarding the day and tomorrow's lessons.	Teacher 2 makes sure the classroom is ready for dismissal upon the students' return. The remainder of the time is used to confer with Teacher 2 regarding the day and tomorrow's lessons.
3:00	Elizabeth and her class collect their belongings and follow dismissal procedures.	With a teacher's reminder, Adam collects his belongings and follows dismissal procedures with the class.	Teacher 1 issues reminders as needed for the students in order to prepare them for dismissal.	Teacher 2 goes to her dismissal station.