Curriculum Overview

Sussex Montessori School

Based on Montessori Curriculum Albums
First State Montessori Academy Curriculum
Delaware Department of Education Guidelines

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The following charts are meant to provide an overview of the Integrated First State Montessori Academy Curriculum. They provide a quick reference for teachers as they plan units that begin with the major concepts of the Montessori Great Lessons and lead to evidence that children are accomplishing the goals of the State of Delaware Content/National Core Standards in each content area.

The Montessori curriculum in an integrated curriculum requiring 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 Language Arts, Mathematics, Science and Social Studies. The SMS Curriculum framework 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 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.
- Be active participants in gathering information from a variety of sources.
- Be instructed using materials appropriate to their individual and developmental needs.
- Be engaged in authentic and purposeful activities.

Teachers use **Understanding by Design (UbD)** model of instructional planning to develop specific long-term studies connected around enduring understandings of the Montessori 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, is devoted to the concept of —What does it mean to be Human? The second year, 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 complete SMS 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. 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 language arts, mathematics, 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 of those observations. The RTI model of assessment/instruction allows teachers 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 classroom is embedded within the context of a classroom that supports the best educational practices. It is generally accepted that the work-force 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:

- Collaborative learning and community service leading to mutual respect of others and the development of the child's global perspective.
- Academic development supported by an emphasis on the social/emotional development of the child within a multi-age community of learners.

- A 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.

This document is designed to provide a map of the complete SMS Curriculum Framework providing a starting place for teachers as they develop units that support the concepts addressed in this introduction.

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/InnovCreativity.pdf.

Montessori Great Lessons

The Montessori Great lessons are impressionistic lessons which provide a —whole for the integrated academic curriculum. 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 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

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 pa-per. 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 is never left alone - the story becomes the springboard to further study but not the focus. The stories are 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

Interdisciplinary Curriculum Transfer Knowledge

Transfer knowledge in the general Montessori Curriculum, are not based on the transfer of a specific body of knowledge, but rather of key conceptual understandings and the development of what Maria Montessori called the human potential. These understandings are potentials transfer throughout the child's school and later life experience. These skills are described in the following chart. Please see the complete curriculum guide for transfer knowledge related to each content area.

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.	**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,	**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.	**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

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. This use of resources defines many cross cultural human interactions. • **Unity of the Universe Itself:** Students develop an under-standing of their relationship and place in the development of the universe, how the earth has changed over time through physical, chemical, and geological processes.	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. • **Life Management** – Students develop self-awareness so that in 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, com-passion, social responsibility, and	• Determine ways to gather data and use various tools (experiments, surveys, logs, journals, etc.). • Understand what constitutes evidence. • Understand when you have enough evidence. • Interpret evidence and present logical inferences and conclusions to others from the evidence.	and self-control when communicating with others. • Utilize and explore their own creativity. • Learn to appreciate the aesthetic • Use various technology tools to gather, organize, and communicate 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.

	appreciation for others and the world around them.		

Big Ideas and Concepts Addressed in SMS Montessori Integrated Curriculum Units K-1

	K/1 - Year 1 - What Does It Mean to be Human	K/1 - Year Two - How Does the World Work?
September, October, November, December	**Membership in Groups** 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. **Diversity and Continuity of Living Things** 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.	**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.

January, February, March	**Fundamental Wants** All species, including humans have basic fundamental wants. Children distinguish wants from wants, 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 wants. As humans use natural resources to meet their wants, 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.	**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.
April, May, June	**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	**The Flow of Energy and Human Wants** 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.

Big Ideas and Concepts Addressed in SMS Montessori Integrated Curriculum Units Grades 2 / 3

	2 / 3 - Year 1 - What does it mean to be human?	2 / 3 Year 2 - How does the World Work?
September, October, November, December	**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.	**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.

January, February, March	**Economics of wants and fundamental wants** Children identify human wants, 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 wants. As humans use natural resources to meet their wants, 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.	**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. 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.
April, May, 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, 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.	**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 wants.

Big Ideas and Concepts Addressed in SMS Montessori Integrated Curriculum Units 4/5/6 Grades

	Year 1 - What does it mean to be human?	**Year 2 - How does the World Work**	**Year 3 - What is Culture?**

September, October, November, December, January	**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.	**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 wants 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.	**The diversity of life and life processes/ cycles across nature and 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.

February, March, April, May, June	**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.	**Producing and Consuming – in Nature and Human Interactions** 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 wants 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 wants. The production and consumption of energy impacts the ability of a society to produce goods and services to meet their wants. Knowledge of materials and their properties helps man to match	**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.

		materials to products.	

Unit Map - SMS Integrated Curriculum Grades K/1 (5-7 Year Olds)

K/1 (5-7 Year Olds) Year ONE of Two Year Cycle	**Over-Arching Question** What does it mean to be Human? **Continent Study** North and South America	**Montessori Great Lesson**	**Timing / Big Ideas Framing Unit Content**	**Social Studies Unit** **Delaware Recommended Units Teacher Created Units**	**Science Units** **Science Coalition Kits Teacher Created Units**	**Language Arts - Each Unit is approximately 6 weeks**	**Mathematics - See Math Scope and Sequence for timing of units**	
	Over-arching Question 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	• Coming of the Universe and Earth • Coming of Life • Coming of Humans	September to November Membership in Groups Diversity and Continuity of Living Things	Participating in a Group Group Leadership and Citizenship	Five Senses Trees	People use symbols to communicate People tell, read, and write stories and poetry People take	<u>Kindergarten</u> Counting Counting and Measure-ment 2-D Geometry	<u>First</u> Number and Operations 2-D Geometry Addition, Subtraction

	scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn about the natural and human world around them within the context of the specific study of the North and South American continents	• Story of Language • Story of Numbers	**December to March** Fundamental Wants of Humans Diversity and Continuity of Living Things	Location impacts Resources Thinking about Maps and Globes		care of the earth	Counting and Measure-ment 2 3-D Geometry Addition, Subtraction, and the Number System 1 Modeling with Data Addition, Subtraction and the Number System 2	and the Number System 2 Measure-ment and Fractions Addition, Subtraction and the Number System 3 Modeling with Data Addition, Subtraction and the Number System 4 3-D Geometry
					Wood and Paper	All about Trees		
			March to June Place in Time and Space Diversity and Continuity of Living Things	Schedules	Measuremen t	People's Traditions		
						Family Histories		

K/1 (5-7 Year Olds) Year TWO of Two Year Cycle	**Over-Arching Question** How Does the World Work? **Continent Study** Africa and Australia	**Montessori Great Lesson**	**Timing /** **Big Ideas Framing Unit Content**	**Social Studies Unit** **Delaware Recommended Units Teacher Created Units**	**Science Units** **Science Coalition Kits Teacher Created Units**	**Language Arts - Each Unit is about 6 weeks**	**Mathematics - See Math Scope and Sequence for timing of units**	
	Over-arching Question Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry and research. Humans have various ways of understanding how the world works. Thinking like a scientist, or a geographer, a historian or a social	• Coming of the Universe and Earth • Coming of Life • Coming of Humans • Story of Language	**September to December** Man's impact on Life Cycles and Systems	Membership in Groups (2) Participating in a Group	Organisms	Families, friends, communities Animals, Animals	<u>Kindergarten</u> Counting Counting and Measurement 2-D Geometry Counting and Measurement 2 3-D Geometry	<u>First</u> Number and Operations 2-D Geometry Addition, Subtraction, and the Number System 2
			December to March Earth Systems and Human Interactions	Schedules Thinking about Maps and Globes	Weather and Me Air and Weather Pebbles and	Exploring the Earth today Weather/Weather		

	scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn how the natural and human world around them works. They do this study within the context of the specific study of the **Africa and Australia**.	• Story of Numbers	Weather/ Soils Time and Earth Systems – recording of dynamic earth system events Place and Earth Systems		Sand		Addition, Subtraction, and the Number System 1 Modeling with Data Addition, Subtraction and the Number System 2	Measurement and Fractions Addition, Subtraction and the Number System 3 Modeling with Data Addition, Subtraction and the Number System 4 3-D Geometry
			March to June The Flow of Energy and Human Wants	Group decision making about using resources for energy Participating in a Group	Solids and Liquids	Energy/Energy Discoveries		

Unit Map - SMS Integrated Curriculum 2/3 (7-9 Year Olds)

2/3 (7-9 Year Olds) Year ONE of Two Year Cycle	**Over-Arching Question** What does it mean to be human? **Continent Study** Europe and Antarctica	**Montessori Great Lesson** .	**Timing /** **Big Ideas Framing Unit Content**	**Social Studies Unit** **Delaware Recommended Units** **Teacher Created Units**	**Science Units** **Science Coalition Kits** **Teacher Created Units**	**Language Arts - Each Unit is approximately 6 weeks**	**Mathematics - See Math Scope and Sequence for timing of units**	
	Over-arching Question 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	• Coming of the Universe and Earth • Coming of Life • Coming of Humans • Story of Language • Story of Numbers	**September to November** Membership in Groups Diversity and Continuity of Living Things	Group Membership and Responsibility Group Leadership Respect in Civil Society Citizenopoly	The Human Body Physics of Sound	People as citizens Leaders in our world	2nd Grade Addition, Subtraction, and the Number System 1 2-D Geometry Addition, Subtraction, and the	3rd Grade Understand-ing Equal Groups, Multiplica-tion and Division I Graphs and Line Plots, Modeling with Data Addition, Subtraction, and the Number System 1
			December to March	Scarcity and Wants	Balance and Weighing	Trading, sharing, and conserving		

	historian or a social scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn about the natural and human world around them within the context of the specific study of the **continents of Europe and Antarctica.**		Economics of Wants and Fundamental Needs	Fundamental Wants Resources and Production Scarcity and Wants	Chemical Tests	Shapes, sizes, and color	Number System 2 Measurement and Fractions Addition, Subtraction and the Number System 3 Modeling with Data Addition, Subtraction and the Number System 4 Addition, Subtraction, and the Number System 5	Perimeter, Area, and Polygons, 2-D Geometry and Measurement Cube Patterns, Arrays, and Multiples of 10, Multiplication and Division II Fair Shares and Fractions on Number Lines How Many Miles? Addition, Subtraction, and the Number System 2 Large Numbers and Multi-Step Problems: Multiplication and Division III
			March to June Place in Time and Space, Geological History, Human History	Geological History Using Maps and Globes Regions	Water Earth's Materials	Places we live Water/water everywhere		

2/3 (7-9 Year Olds) Year TWO of Two Year Cycle	**Over-Arching Question** How Does the World Work? **Continent Study** Asia	**Montessori Great Lesson** The Montessori Great Lessons provide a context leading to the development of the Big Ideas and Unit Content.	**Timing /** **Big Ideas Framing Unit Content**	**Social Studies Unit** **Delaware Recommended Units** **Teacher Created Units**	**Science Units** **Science Coalition Kits** **Teacher Created Units**	**Language Arts - Each Unit is approximately 6 weeks**	**Mathematics - See Math Scope and Sequence for timing of units**	
	Over-arching Question Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry and research. Humans have various ways of understanding how the world works. Thinking like a scientist, or a geographer, a	• Coming of the Universe and Earth • Coming of Life • Coming of Humans • Story of Language • Story of Numbers	**September to December** Life Cycles and Systems Historian's perspective	Historical Perspective of Man's impact on regions and environments. Writing the Story of the Past	Insects Butterflies	Unit 1 Exploring Nature Unit 2 Our Relationship with the Environment	2nd Grade Addition, Subtraction, and the Number System 1 2-D Geometry Addition, Subtraction, and the Number System 2	3rd Grade Understanding Equal Groups, Multiplication and Division I Graphs and Line Plots, Modeling with Data Addition, Subtraction, and the
			December to March	Human Systems of Production and Consumption	Earth's Materials	Unit 3 Making Choices – a study of characters		

	historian or a social scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn how the natural and human world around them works. They do this study within the context of the specific study of the **Asia.**		Producing and Consuming Connecting ideas: Using the Earth's Materials Plant related industries	Trading Partners Economic Exchange	Plant Growth and Development	Unit 4 The Art of Persuasion	Measurement and Fractions Addition, Subtraction and the Number System 3 Modeling with Data Addition, Subtraction and the Number System 4 Addition, Subtraction, and the Number System 5	Number System 1 Perimeter, Area, and Polygons, 2-D Geometry and Measure-ment Cube Patterns, Arrays, and Multiples of 10, Multiplication and Division II Fair Shares and Fractions on Number Lines How Many Miles? Addition, Subtraction,
			March to April Earth's Energy and Geological Systems Connecting theme – soils and impact on how people live in various regions.	Geology influences region and place Places Regions	Soils	Unit 5 Change – Characters and Settings Unit 6 Connections between people and places		

								and the Number System 2 Large Numbers and Multi-Step Problems: Multiplicatio n and Division III

Unit Map - SMS Integrated Curriculum Grades 4th, 5th, 6th (9-12 Year Olds)

4/5/6 (9-12 Year olds) Year ONE of Three Years	**Over-Arching Question** What does it mean to be Human?	**Montessori Great Lessons**	**Timing / Big Ideas Framing Unit Content**	**Social Studies Unit Delaware Recommended Units Teacher Created Units**	**Science Units Science Coalition Kits Teacher Created Unit**	**Language Arts - Each unit is approximately 8 weeks**	**Mathematics - See Math Scope and Sequence for timing of Investigations units.**
	Over-arching Question 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, a mathematician or a writer, they use methods of inquiry and research tools to learn about the natural and human world around them.	• Coming of the Universe and Earth • Coming of Life • Coming of Humans • Story of Language • Story of	**September to January** The Purpose of Governments/ Scientific Advances Connector – The relationship between scientific advances in areas studied and	DRU 4th / 5th/ 6th Grades Democratic Methods Liberty & Citizenship Bill of Rights Due Process Mock Elections	Variables Food and Nutrition – Connect to Government Requirements	A study of presidents - biography Taking a Stand – characters who believe in a cause	<u>Grade 4</u> Arrays, Factors, and Multiplicative Comparison. Generating and Representing Measurement Data Multiple Towers and Cluster Problems <u>Grade 5</u>

		Numbers	government decisions				Puzzles, Clusters, and Towers Rectangles, Clocks and Tracks How Many People and Teams? Temperature, Height, and Growth <u>Grade 6</u> Factors and multiples Estimating and Ordering Rational Numbers Understand-ing fractions and operations Two Dimensional Measurement

			February to June Place in Time and Space Universe through the eyes of historians and Scientists	DRU – 4th /5th/6th Grades Thinking Chronologically reformatted for space study	Sky Watchers Solar Systems Measuring Time Earth History	Space Exploration Stories of the Earth and Sky (CCS Unit)	<u>Grade 4</u> Measuring and Classifying Shapes Large Numbers and Landmarks Fraction Cards and Decimal Grids How Many Packages and Groups <u>Grade 5</u> Penny Jars and Towers Between 0 and 1 Races, Arrays and Grids Properties of Polygons <u>Grade 6</u> Computing with decimals and percents

							Introducing Algebra Statistics and Data Analysis

4/5/6 (9-12 Year olds) Year TWO of Three Year Cycle	**Over-Arching Question** What does it mean to be Human?	**Montessori Great Lessons**	**Timing /** **Big Ideas Framing Unit Content**	**Social Studies Unit** **DRU - Delaware Recommended Units** **TCU - Teacher Created Units**	**Science Units** **SCK - Science Coalition Kits** **TCU - Teacher Created Unit**	**Language Arts**	**Mathematics**
	Over-arching Question Children understand that humans think in various ways through their use of language, mathematics, scientific inquiry and research. Humans have various ways of	• Coming of the Universe and Earth • Coming of Life • Coming of Humans	**September to January** Energy Exchanges and Systems The Historian's Perspective of Science –	DRU 4th/5th/ 6th Grades Thinking Chronologically restructured for history in science	Magnetism and Electricity Magnets and motors Electric Circuits	Unit 1 – Biographies – Creative, Innovative scientists Unit 2 –	<u>Grade 4</u> Arrays, Factors, and Multiplicative Comparison. Generating and Representing Measurement Data

	understanding how the world works. Thinking like a scientist, or a geographer, a historian or a social scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn how the natural and human world around them works.	• Story of Language • Story of Numbers	Discoveries about Electricity	Interpreting the Past: Dueling Documents restructured for history in science		Author Study – comparing/contrasting	Multiple Towers and Cluster Problems <u>Grade 5</u> Puzzles, Clusters, and Towers Rectangles, Clocks and Tracks How Many People and Teams? Temperature, Height, and Growth <u>Grade 6</u> Factors and multiples Estimating and Ordering Rational Numbers

							Understand-ing fractions and operations Two Dimensional Measurement
			February to June Producing and Consuming Influence of Place on Production and Consumption Man's Decisions related to production and consumption Connecting theme – how do scientific advances influence	DRU – 4th/5th/6th Grades Reasons for Banks Thinking Economically Economic Systems	Motion and Design Floating and Sinking Levers and Pulley	Unit 3 – My own business Unit 4 – Conflicts-Decisions in literature	<u>Grade 4</u> Measuring and Classifying Shapes Large Numbers and Landmarks Fraction Cards and Decimal Grids How Many Packages and Groups <u>Grade 5</u> Penny Jars and Towers Between 0 and 1 Races, Arrays and Grids

			production and consumption?				Properties of Polygons <u>Grade 6</u> Computing with decimals and percents Introducing Algebra Statistics and Data Analysis

4/5/6 (9-12 Year olds) Year THREE	**Over-Arching Question** What is Culture	**Montessori Great Lessons**	**Timing /** **Big Ideas Framing Unit Content**	**Social Studies Unit** **DRU - Delaware Recommended Units** **TCU - Teacher Created Units**	**Science Units** **SCK - Science Coalition Kits** **TCU - Teacher Created Unit**	**Language Arts**	**Mathematics**
	Over-arching Question	• Coming of the Universe and Earth	**September to January**	DRU 4th, 5th, 6th, Grades	Structure of Life	Unit 1 – Cultures and Heroes	<u>Grade 4</u> Arrays, Factors, and

	Children understand that human culture is influenced by history, geography, and economics. It is also impacted by scientific discoveries, mathematical understandings and the ways that humans communicate through speech and writing to convey ideas. Thinking like a scientist, or a geographer, a historian or a social scientist, a mathematician or a writer, they use methods of inquiry and research tools to learn what culture is and the various contents of study impact cultures.	• Coming of Life • Coming of Humans • Story of Language • Story of Numbers	Diversity of Life and Life processes Cycles in nature and in studies of human cultures The impact of human culture on the environment	Our Community: Profiles and Connections Culture and Civilization TCU – Human Life Cycles and Cultural norms	Ecosystems	Unit 2 – Literature – a window to cultures (part 1)	Multiplicative Comparison. Generating and Representing Measurement Data Multiple Towers and Cluster Problems <u>Grade 5</u> Puzzles, Clusters, and Towers Rectangles, Clocks and Tracks How Many People and Teams? Temperature, Height, and Growth <u>Grade 6</u> Factors and multiples

							Estimating and Ordering Rational Numbers Understand-ing fractions and operations Two Dimensional Measurement
			February to June Earth's Dynamic Systems Earth Regions The Impact of earth systems cultures Impact of Geography on Human Cultures	DRU – 4th, 5th, 6th Grades Reasons for Regions Building Global Mental Maps Culture and Civilization	Land and Water Mixtures and Solutions Earth History	Unit 3 – Literature a window to cultures. (part 2) Unit 5 – Earth Studies through Poetry and Literature	<u>Grade 4</u> Measuring and Classifying Shapes Large Numbers and Landmarks Fraction Cards and Decimal Grids How Many Packages and Groups <u>Grade 5</u>

			Group functioning and cultures				Penny Jars and Towers Between 0 and 1 Races, Arrays and Grids Properties of Polygons <u>Grade 6</u> Computing with decimals and percent Introducing Algebra Statistics and Data Analysis