MOUNT HOLLY TOWNSHIP SCHOOL DISTRICT
FIRST GRADE MATHEMATICS CURRICULUM

2016 Mathematics Standards with companion June 2020 NJSLS
Board Approval: September 28, 2022

District Administration

Mr. Robert Mungo	Superintendent
Mrs. Amie Dougherty	Director of Curriculum and Instruction
Mrs. Tifanie Pierce	Director of Special Services
Mrs. Carolyn McDonald	Director of Equity and Student Services
Mr. Daniel Finn	Principal 5-8
Mr. Thomas Braddock	Principal 2-4
Mrs. Nicole Peoples	Principal PreK-2
Mrs. Kinny Nahal	Assist Principal 5-8
Mrs. Evon DiGangi	School Business Administrator

Mount Holly Township Board of Education

Mrs. Janet DiFolco	Board President
Ms. Jennifer Mushinsky	Board Vice-President
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Mrs. Janene Ciotti	Board Member
Mr. William Monk	Board Member

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New Jersey Mathematics Standards:
2016 New Jersey Student Learning Standards - Mathematics

New Jersey Computer Science and Design Thinking Standards
2020 New Jersey Student Learning Standards: Computer Science and Design Thinking

New Jersey Career Readiness, Life Literacies, and Key Skills Standards
2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies & Key Skills

Grade One Pacing Guide

Mathematics Curriculum	**Grade 1**

Interdisciplinary Connections: The Mathematics Program, My Math/Glencoe Math, links mathematics instruction across multiple disciplines. These interdisciplinary standards are incorporated into each grade level, providing purposeful application and meaningful learning.

Math Discipline	*Connection to other Disciplines*
Domain 1: Operational and Algebraic Thinking	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text. NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

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	NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
Domain 2: Numbers and Operations in Base Ten	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text. NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
Domain 3: Measurement and Data	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text. NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance

	understanding of presentations. K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.
Domain 4: Geometry	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text. NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally. NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Computer Science and Design Thinking	
Core Ideas	**Performance Expectations**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Individuals develop and follow directions as part of daily life. A sequence of steps can be expressed as an algorithm that a computer can process.	8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.
Career Readiness, Life Literacies, and Key Skills	
Financial Institutions/Psychology	

Core Ideas	Performance Expectations
Money comes in different values, forms, and uses.	9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
There is a relationship between an individual's values, emotions, and the ways he/she chooses to spend money.	9.1.2.FP.1: Explain how emotions influence whether a person spends or saves.
External factors can influence the items that an individual wants or needs.	9.1.2.FP.2: Differentiate between financial wants and needs. 9.1.2.FP.3: Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).
Career Awareness, Exploration, Preparation, and Training	
Different types of jobs require different knowledge and skills.	9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job.
Diversity, Equity, and Inclusion:	
Culturally Responsive Practices in Mathematics Education: **8 Powerful Ways to Promote Equity in the Classroom** **Who Do You Call On? Rooting Out Implicit Bias'** **Why Representation Matters**	
Financial Habits and Traits: Students in Grades K-2 will begin to explore advertisements on television, computer, or even on their journeys to and from school. These lessons open up important conversations about the relationship between	Resources: Learning for Justice: Reading Ads with a Social Justice Lens

advertisements and social justice. Children will begin to see that they have the power to decide how media will influence them.	

Domain 1: Operations and Algebraic Thinking	
Chapter 1: Addition Concepts (21 days) Chapter 2: Subtraction Concepts (21 days) Chapter 3: Addition Strategies to 20 (15 days) Chapter 4: Subtraction Strategies to 20 (14 days)	
NJ 2016 Student Learning Standards: Mathematics Grade 1 **Operations and Algebraic Thinking** **1.OA.A. Represent and solve problems involving addition and subtraction.** ● 1. 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.[2] ● 2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **1.OA.B.Understand and apply properties of operations and the relationship between addition and subtraction.**	**NJDOE Mathematics Curricular Framework** Guide Document and Supports Mathematics Curricular Framework **Mathematical Practices** **MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure.

• 3. Apply properties of operations as strategies to add and subtract.[3] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}* • 4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.* **1.OA.C. Add and subtract within 20.** • 5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). • 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13). **1.OA.D. Work with addition and subtraction equations.** • 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* • 8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers.	MP.8. Look for and express regularity in repeated reasoning.

For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = – 3, 6 + 6 = .	
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community members and employee. CRLLKS2. Attend to financial well-being. CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using cultural/global competence.	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams
Enduring Understandings	**Essential Questions**

Chapter 1: ● How to join parts to make a whole. ● How to join groups using symbols. ● Use the Zero Property of Addition to find a sum. ● How to make a sub of 10 with numbers 0 through 10. ● How to understand the meaning of the equals sign to identify if a math statement is true or false. **Chapter 2:** ● How to take away a part from the whole. ● How to use addition facts to solve subtraction facts. ● How to use symbols to show take away situations. ● How to compare groups using subtraction. **Chapter 3:** ● How to apply properties of operations to add. ● How to count on to add another number. ● How to use a number line to add. ● How to use doubles to add. ● How to add near doubles to find the sum. **Chapter 4:** ● How to count back to subtract. ● How to take apart a number to subtract to make 10. ● How to find a missing addend using addition and subtraction. ● How to use the same four numbers to add and subtract.	**Chapter 1:** ● How do you add numbers? **Chapter 2:** ● How do you subtract numbers? **Chapter 3:** ● How do I use strategies to add numbers? **Chapter 4:**
Content Knowledge **My Math Chapter 1** 1. 1.1 Addition Stories 2. 1.2 Model Addition 3. 1.3 Addition Number Sentences 4. 1.4 Add 0	**Skills** **My Math Chapter 1** 1. Use manipulatives to model addition stories. 2. Add two parts to make a whole. 3. Write addition number sentences. 4. Find sums by adding zero

5. 1.5 Vertical Addition 6. 1.6 Problem Solving Strategy: Write a Number Sentence 7. 1.7 Ways to Make 4 and 5 8. 1.8 Ways to Make 6 and 7 9. 1.9 Ways to Make 8 10. 1.10 Ways to Make 9 11. 1.11 Ways to Make 10 12. 1.12 Find Missing Parts of 10 13. 1.13 True and False Statements **My Math Chapter 2** 1. 2.1 Subtraction Stories 2. 2.2 Model Subtraction 3. 2.3 Subtraction Number Sentences 4. 2.4 Subtract 0 and All 5. 2.5 Vertical Subtraction 6. 2.6 Problem Solving Strategy: Draw a Diagram 7. 2.7 Compare Groups 8. 2.8 Subtract from 4 and 5 9. 2.9 Subtract from 6 and 7 10. 2.10 Subtract from 8 11. 2.11 Subtract from 9 12. 2.12 Subtract from 10 13. 2.13 Relate Addition and Subtraction 14. 2.14 True and False Statements **My Math Chapter 3** 1. 3.1 Count on 1, 2, or 3 2. 3.2 Count on Using Pennies 3. 3.3 Use a Number Line to Add 4. 3.4 Use Doubles to Add 5. 3.5 Use Near Doubles to Add	5. Write addition facts horizontally and vertically 6. Write a number sentence to solve problems 7. Use counters to make sums of 4 and 5 in different ways 8. Use counters to make sums of 6 and 7 in different ways 9. Use counters to make sums of 8 in different ways 10. Use counters to make sums of 9 in different ways 11. Use a ten-frame and counters to make sums of 10 in different ways. 12. Identify missing parts of 10 13. Identify math statements as true or false **My Math Chapter 2:** 1. Use models to represent and solve subtraction stories. 2. Subtract parts from a whole 3. Write subtraction number sentences 4. Subtract 0 or find a difference of 0 5. Subtract across and down 6. Draw a diagram to solve problems 7. Compare groups of up to nine objects 8. Subtract numbers from four and five 9. Subtract numbers from six and seven 10. Subtract numbers from eight 11. Subtract numbers from nine 12. Subtract numbers from ten 13. Find related addition and subtraction facts 14. Determine whether math statements are true or false **My Math Chapter 3:** 1. Count on from the greater number to find the sum 2. Use pennies to count on 3. Usea number line to help find the sum 4. Use doubles to add strategy to help find the sum 5. Use the near doubles to add strategy to help find the sum

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6. 3.6 Problem Solving Strategy: Act it Out 7. 3.7 Make 10 to Add 8. 3.8 Add in Any Order 9. 3.9 Add Three Numbers **My Math Chapter 4** 1. 4.1 Count Back 1, 2, or 3 2. 4.2 Use a Number Line to Subtract 3. 4.3 Use Doubles to Subtract 4. 4.4 Problem Solving Strategy: Write a Number Sentence 5. 4.5 Make 10 to Subtract 6. 4.6 Use Related Facts to Add and Subtract 7. 4.7 Fact Families 8. 4.8 Missing Addends	6. Act it out to solve problems 7. Use counters and a ten-frame to make sums greater than 10 8. Identify related addition facts 9. Add three numbers by looking for doubles or making a ten. **My Math Chapter 4:** 1. Count back by 1, 2, or 3 to subtract 2. Use a number line to count back to subtract 3. Relate doubles addition facts to subtraction facts 4. Write a number sentence to solve problems. 5. Subtract using the make 10 to subtract strategy 6. Identify similarities in related addition and subtraction sentences 7. Identify similarities in fact families 8. Subtract to find missing addends

Primary and Supplementary Resources

Grade 1 My Math Student Edition
Grade 1 My Math Assessments
Grade 1 My Math Teacher Edition
Grade 1 My Math Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

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iReady

i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:

- ➢ integrates powerful assessments and rich insights with effective and engaging instruction in reading and mathematics to address students' individual needs.
- ➢ empowers teachers every day to make more informed instructional decisions.
- ➢ motivates students with access to their own personalized path to growth.

XtraMath

- ➢ This program helps students practice their math facts for addition, subtraction, multiplication, and addition.
- ➢ Can individualize the fluency skills for each student.
- ➢ Can run reports to determine progress.

Scholastic Study Jams

- ➢ Fun videos which explain common mathematics concepts.
- ➢ Questions at the end of the video reinforce the concepts.

Khan Academy

- ➢ a set of online tools that help educate students. The organization produces short lessons in the form of YouTube videos.
- ➢ Its website also includes supplementary practice exercises and materials for educators.

1st grade Flip Book:

https://drive.google.com/file/d/1ku0ksoa2NA_6Fbg0eGFPo7wsRg8LWVXI/view?usp=sharing

101 Math Discourse Questions:

http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf

Asking Effective Questions

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf

K-2 Fluency Resources:

https://achievethecore.org/content/upload/Math%20Fluency%20Resources_Grade%20K.pdf

Achieve the Core Coherence Map

https://achievethecore.org/coherence-map/1

Assessments:

Chapter 1:

1. Diagnostic Assessment: Am I Ready? completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 1 Summative Assessment completed in ConnectED or printed from *Assessment Masters.*
4. Ch. 1 Project

Chapter 2:

1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters.* A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 2 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 2 Project

Chapter 3:

1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Check My Progress SE use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
4. Ch. 3 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
5. Chapter 3 Project

Chapter 4:

1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters.* A ready-made diagnostic test is available online.
2. Check My Progress SE use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 4 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 4 Project

Differentiation in the Mathematics Classroom

Special Education Students	**English Language Learners**
➢ Provide number charts/ number lines (or calculators) to students who struggle with fluency.	➢ Create Vocabulary Banks ➢ Use manipulatives

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➢ Represent numbers in place value charts.
➢ Give students copies of place value charts to organize their thoughts while completing their work.
➢ Assign fewer complex problems and have students illustrate or explain the reasoning they use.
➢ Emphasize the role of diagramming in interpreting and solving problems in mathematics.
➢ Provide students with graph paper to organize and reduce errors being made due to handwriting.
➢ Use tasks that provide multiple entry points and provide scaffolds that support student participation.
➢ Have a vocabulary wall.
➢ Provide reduced amount of homework for struggling learners. Give them a few relevant math problems rather than an entire worksheet.
➢ Conference with the students often to learn about how they think about math.
</td>
<td>
➢ Modify teacher talk and practice wait time
➢ Elicit nonverbal responses, like a thumbs up or down
➢ Use sentence frames
➢ Comprehensible input
➢ Contextualized instruction
➢ A low-anxiety learning environment
➢ Meaningful engagement in learning activities
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At-Risk Students
➢ Reduce the number of problems given
➢ Provide calculators
➢ Give extra time
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504 Students
➢ Provide a checklist of the steps needed to complete the problem
➢ Provide place value charts
➢ Provide lots of white-space to make it less busy
➢ If still struggling, reteach and retest
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Gifted and Talented Students
➢ Use more-challenging numbers
➢ Add additional steps by combining standards
➢ Introduce the next-grade-level standard
➢ Know Their Interests – Start by having students complete an interest inventory like this one Student Interest Survey
➢ Keep Them Active - Gifted students often need to have the ability to move when learning
➢ Offer Flexible Seating - Try to offer different seating options for students: beanbag chairs, carpet squares, pillows, director chairs … the list can go on and on.
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- ➢ Share Current Events - Current events are important to incorporate into gifted programming. We want these students to be thinking about how they can use their talents to solve real-world problems.
- ➢ Practice Like Professionals - Allow students to practice like the professionals. Use the same processes that professionals use.
- ➢ Locate Authentic Audiences - The work students create should have a real audience and be appreciated by those who authentically would benefit from its completion. Younger students are a great first authentic audience.

Domain 2: Number and Operations in Base Ten	
Chapter 5: Place Value (21 days) Chapter 6: Two-Digit Addition and Subtraction (14 days)	
NJ 2016 Student Learning Standards: Mathematics Grade 1 **1.NBT.A. Extend the counting sequence.** ● 1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. **1.NBT.B. Understand place value.** ● 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0	**NJDOE Mathematics Curricular Framework** Guide Document and Supports Mathematics Curricular Framework **Mathematical Practices** **MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics.

ones). ● 3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. **1.NBT.C. Use place value understanding and properties of operations to add and subtract.** ● 4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) 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. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. ● 5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. ● 6. 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.	MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. MP.8. Look for and express regularity in repeated reasoning.
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain**	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills**

CRLLKS1. Act as a responsible and contributing community members and employee. CRLLKS2. Attend to financial well-being. CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using cultural/global competence.	**highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams
Enduring Understandings **Chapter 5:** ● Read and write numerals and represent a number of objects with a written numeral. ● How to make ten using ones. ● How to show a number as tens and ones. ● How to compare two-digit numbers. ● Mentally find ten more and/or ten less than a given	**Essential Questions** ● How can I use place value? ● How can I add and subtract two-digit numbers?

number without having to count the numbers. **Chapter 6:** ● How to add groups of tens within 100. ● How to count on by tens or by ones to solve a two-digit addition problem. ● How to add numbers with regrouping. ● How to subtract by tens to find the difference. ● How to use a number line to count back by tens.	
Content Knowledge **My Math Chapter 5:** 1. 5.1 Numbers 11 to 19 2. 5.2 Tens 3. 5.3 Count by Tens Using Dimes 4. 5.4 Ten and Some More 5. 5.5 Tens and Ones 6. 5.6 Problem Solving Strategy: Make a Table 7. 5.7 Numbers to 100 8. 5.8 Ten More, Ten Less 9. 5.9 Count by Fives Using Nickels 10. 5.10 Use Models to Compare Numbers 11. 5.11 Use Symbols to Compare Numbers 12. 5.12 Numbers to 120 13. 5.13 Count to 120 14. 5.14 Read and Write Numbers to 120 **My Math Chapter 6:** 1. 6.1 Add Tens 2. 6.2 Count on to Tens and Ones	**Skills** **My Math Chapter 5:** 1. Count and Write numbers 11 to 19 2. Count groups of tens 3. Use dimes to count by tens 4. Make groups of ten and some more. 5. Make groups of tens and ones 6. Make a table to solve problems 7. Write numbers to 100 in different ways 8. Identify numbers that are ten more and ten less than a given number. 9. Use nickels to count by fives 10. Compare two two-digit numbers 11. Compare two two-digit numbers using symbols 12. Make groups of hundreds, tens, and ones 13. Count numerals up to 120 14. Read and write numbers up to 120 **My Math Chapter 6:** 1. Add tens within 100

3. 6.3 Add Tens and Ones 4. 6.4 Problem Solving Strategy: Guess, Check, and Revise 5. 6.5 Add Tens and Ones with Regrouping 6. 6.6 Subtract Tens 7. 6.7 Count Back by 10's 8. 6.8 Relate Addition and Subtraction of Tens	2. Count on by tens and ones to find sums within 100 3. Add tens and ones to find sums within 100 4. Guess, check, and revise to solve problems 5. Add tens and ones to find the sum with regrouping 6. Subtract tens to find the difference 7. Use a number line to count back by tens to subtract 8. Relate addition and subtraction facts to solve problems

Primary and Supplementary Resources

Grade 1 My Math Student Edition
Grade 1 My Math Assessments
Grade 1 My Math Teacher Edition
Grade 1 My Math Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

iReady
i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:

- ➢ integrates powerful assessments and rich insights with effective and engaging instruction in reading and mathematics to address students' individual needs.
- ➢ empowers teachers every day to make more informed instructional decisions.
- ➢ motivates students with access to their own personalized path to growth.

XtraMath

- ➢ This program helps students practice their math facts for addition, subtraction, multiplication, and addition.
- ➢ Can individualize the fluency skills for each student.

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- ➢ Can run reports to determine progress.

Scholastic Study Jams

- ➢ Fun videos which explain common mathematics concepts.
- ➢ Questions at the end of the video reinforce the concepts.

Khan Academy

- ➢ a set of online tools that help educate students. The organization produces short lessons in the form of YouTube videos.
- ➢ Its website also includes supplementary practice exercises and materials for educators.

1st grade Flip Book:
https://drive.google.com/file/d/1ku0ksoa2NA_6Fbg0eGFPo7wsRg8LWVXI/view?usp=sharing

101 Math Discourse Questions:
http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf

Asking Effective Questions
http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf

K-2 Fluency Resources:
https://achievethecore.org/content/upload/Math%20Fluency%20Resources_Grade%20K.pdf

Achieve the Core Coherence Map
https://achievethecore.org/coherence-map/1

Assessments:

Chapter 5:

1. Diagnostic Assessment: Am I Ready? completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 5 Summative Assessment completed in ConnectED or printed from *Assessment Masters.*
4. Ch. 5 Project

Chapter 6:

1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters.* A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 6 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 6 Project

Differentiation in the Mathematics Classroom

Special Education Students

- ➢ Provide number charts/ number lines (or calculators) to students who struggle with fluency.
- ➢ Represent numbers in place value charts.
- ➢ Give students copies of place value charts to organize their thoughts while completing their work.
- ➢ Assign fewer complex problems and have students illustrate or explain the reasoning they use.
- ➢ Emphasize the role of diagramming in interpreting and solving problems in mathematics.
- ➢ Provide students with graph paper to organize and reduce errors being made due to handwriting.
- ➢ Use tasks that provide multiple entry points and provide scaffolds that support student participation.
- ➢ Have a vocabulary wall.
- ➢ Provide reduced amount of homework for struggling learners. Give them a few relevant math problems rather than an entire worksheet.
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- ➢ Create Vocabulary Banks
- ➢ Use manipulatives
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At-Risk Students

- ➢ Reduce the number of problems given

504 Students

➢ Provide calculators ➢ Give extra time	➢ Provide a checklist of the steps needed to complete the problem ➢ Provide place value charts ➢ Provide lots of white-space to make it less busy ➢ If still struggling, reteach and retest

Gifted and Talented Students

- ➢ Use more-challenging numbers
- ➢ Add additional steps by combining standards
- ➢ Introduce the next-grade-level standard
- ➢ Know Their Interests – Start by having students complete an interest inventory like this one Student Interest Survey
- ➢ Keep Them Active - Gifted students often need to have the ability to move when learning
- ➢ Offer Flexible Seating - Try to offer different seating options for students: beanbag chairs, carpet squares, pillows, director chairs … the list can go on and on.
- ➢ Share Current Events - Current events are important to incorporate into gifted programming. We want these students to be thinking about how they can use their talents to solve real-world problems.
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Domain 3: Measurement and Data	
Chapter 7: Organize and Use Graphs (12 Days) Chapter 8: Measurement and Time (15 Days)	
NJ 2016 Student Learning Standards: Mathematics Grade 1 **1.MD.A. Measure lengths indirectly and by iterating length units.** ● 1. Order three objects by length; compare the lengths of two objects indirectly by using a third object. ● 2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.* **1.MD.B. Tell and write time.** ● 3. Tell and write time in hours and half-hours using analog and digital clocks. **1.MD.C. Represent and interpret data.** ● 4. 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.	**NJDOE Mathematics Curricular Framework** Guide Document and Supports Mathematics Curricular Framework **Mathematical Practices** **MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. MP.8. Look for and express regularity in repeated reasoning.

Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community members and employee. CRLLKS2. Attend to financial well-being. CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using cultural/global competence.	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams
Enduring Understandings **My Math Chapter 7:** ● Organize, represent, and interpret data using a tally chart. ● Organize and represent data with up to three categories	**Essential Questions** **My Math Chapter 7:** ● How do I make and read graphs? **My Math Chapter 8:**

using a picture graph. ● Organize, represent, and interpret data with up to three categories on a bar graph. **My Math Chapter 8:** ● How to compare objects by length. ● How to express the length of an object as a whole number of length units. ● How to tell time on an analog clock. ● How to tell time on a digital clock.	● How do I determine length and time?
Content Knowledge **My Math Chapter 7:** 1. 7.1 Tally Charts 2. 7.2 Problem Solving Strategy: Make a Table 3. 7.3 Make Picture Graphs 4. 7.4 Read Picture Graphs 5. 7.5 Make Bar Graphs 6. 7.6 Read Bar Graphs **My Math Chapter 8:** 1. 8.1 Compare Lengths 2. 8.2 Compare and Order Lengths 3. 8.3 Nonstand Units of Length 4. 8.4 Problem Solving Strategy: Guess, Check, and Revise 5. 8.5 Time to the Hour: Analog 6. 8.6 Time to the Hour: Digital 7. 8.7 Time to the Half Hour: Analog 8. 8.8 Time to the Half Hour: Digital 9. 8.9 Time to the Hour and Half Hour	**Skills** **My Math Chapter 7:** 1. Make and read a tally chart 2. Make a table to solve problems 3. Make a picture graph 4. Interpret data in a picture graph 5. Use data to make a bar graph 6. Read a bar graph **My Math Chapter 8:** 1. Compare the lengths of objects using indirect measurement 2. Compare and order the lengths of objects 3. Measure the lengths of objects using nonstandard units 4. Guess, check, and revise to solve problems 5. Read and write time to the hour on an analog clock 6. Use a digital clock to tell and write time to the hour 7. Read time to the half hour on an analog clock 8. Use a digital clock to tell and write time to the half hour. 9. Tell and write time to the hour and half hour using digital and analog clocks.

Primary and Supplementary Resources

Grade 1 My Math Student Edition
Grade 1 My Math Assessments
Grade 1 My Math Teacher Edition
Grade 1 My Math Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

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101 Math Discourse Questions:
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Asking Effective Questions
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K-2 Fluency Resources:
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Achieve the Core Coherence Map
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Assessments:

Chapter 7:

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4. Ch. 7 Project

Chapter 8:

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Domain 4: Geometry	
Chapter 9: Two-Dimensional Shapes and Equal Shares (17 days) Chapter 10: Three-Dimensional Shapes (10 Days)	
NJ 2016 Student Learning Standards: Mathematics Grade 1 **1.G. A. Reason with shapes and their attributes.** ● 1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. ● 2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.[4] ● 3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*,	**NJDOE Mathematics Curricular Framework** Guide Document and Supports Mathematics Curricular Framework **Mathematical Practices** **MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively.

fourths, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. MP.8. Look for and express regularity in repeated reasoning.
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Enduring Understandings **My Math Chapter 9:** ● How to recognize two-dimensional shapes by defining attributes. ● How to make a new shape by putting other shapes together. ● How to partition shapes into equal parts. **My Math Chapter 10:** ● Distinguish between defining attributes and non-defining attributes to identify a cube. ● Distinguish between defining attributes and non-defining attributes to identify a rectangular prism. ● Distinguish between defining attributes and non-defining attributes to identify a cylinder. ● Distinguish between defining attributes and non-defining attributes to identify a cone. ● How to combine three-dimensional shapes to make a composite shape. ●	**Essential Questions** **My Math Chapter 9:** ● How can I recognize two-dimensional shapes and equal shares? **My Math Chapter 10:** ● How can I identify three-dimensional shapes?
Content Knowledge **My Math Chapter 9:** 1. 9.1 Squares and Rectangles 2. 9.2 Triangles and Trapezoids 3. 9.3 Circles 4. 9.4 Compare Shapes 5. 9.5 Composite Shapes	**Skills** **My Math Chapter 9:** 1. Use defining attributes to identify and describe squares and rectangles. 2. Use defining attributes to identify and describe trapezoids and triangles. 3. Use defining attributes to identify and describe circles.

6. 9.6 More Composite Shapes 7. 9.7 Problem Solving: Use Logical Reasoning 8. 9.8 Equal Parts 9. 9.9 Halves 10. 9.10 Quarters and Fourths **My Math Chapter 10:** 1. 10.1 Cubes and Prisms 2. 10.2 Cones and Cylinders 3. 10.3 Problem Solving: Look for a Problem 4. 10.4 Combine Three-Dimensional Shapes	4. Compare two-dimensional shapes. 5. Use two-dimensional shapes to make a composite shape. 6. Use two-dimensional shapes to make a composite shape and compose new shapes from the composite shape. 7. Use logical reasoning to solve problems. 8. Partition shapes into two or four equal shares and identify how many parts there are in the whole. 9. Partition shapes in two equal parts. 10. Partition shapes into four equal parts. **My Math Chapter 10:** 1. Look at attributes to identify cubes and rectangular prisms. 2. Look at attributes to identify cones and cylinders. 3. Look for a pattern to solve problems. 4. Combine three-dimensional shapes to make a composite shape. **10.**
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