First Grade Florida Standards Math

Revised, 2014

Course # 5012030

This is an update of the First Grade Math Curriculum. It is based upon the Florida Standards Mathematical Standards and incorporates the eight Mathematical Practices. It includes a required order of instruction pacing guide.

First Grade Florida Standards Math

The district-adopted text for math is Harcourt GOMATH for Florida Standards. Additional materials are available on the Harcourt ThinkCentral website. Math iXL is also in use in all elementary schools.

- **MAFS.1**

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

1. Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

2. Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

3. Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement. Note: Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.

4. Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

Mathematical Practices: The eight Mathematical Practices describe HOW we do math. They must be infused into all math instruction. This is done by having students:

- explain their thinking;
- solve problems in different ways;
- use manipulatives to demonstrate and visualize problem solving;
- work on difficult problems that are accessible but challenging;
- solve fewer problems that require more thinking rather than focusing on working a lot of one-step problems;
- use different tools to make sense of math;
- focus on precision;
- look for patterns in numbers and problems.

In addition, teachers must:

- plan with the practices in mind. This means asking planning questions like: 'What mathematical practice will the students need to use to solve this problem?' or 'What mathematical practice will I be modeling when we are working on this concept?'
- model the practices.
- use the vocabulary of the practices.
- honor student problem solving by giving them time to work on problems without moving quickly to 'the answer', and giving students multiple opportunities to discuss their reasoning in the context of math.
- question and discuss answers.
- make mathematical tools visible by discussing appropriate and available tools for solving problems, and having the tools readily accessible for use.

Mathematical Practices from the Florida Standards for Mathematics, with Explanations:

MAFS.K12.MP.1.1 -- **Make sense of problems and persevere in solving them.**

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

MAFS.K12.MP.2.1 : **Reason abstractly and quantitatively**.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

MAFS.K12.MP.3.1 : **Construct viable arguments and critique the reasoning of others.**

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

MAFS.K12.MP.4.1 : **Model with mathematics.**

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

MAFS.K12.MP.5.1 : **Use appropriate tools strategically.**

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

MAFS.K12.MP.6.1 : **Attend to precision.**

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

MAFS.K12.MP.7.1 : **Look for and make use of structure.**

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 – 3(x – y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

MAFS.K12.MP.8.1 : **Look for and express regularity in repeated reasoning.**

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y – 2)/(x – 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x – 1)(x + 1)$, $(x – 1)(x^2 + x + 1)$, and $(x – 1)(x^3 + x2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

District Expectations and Considerations for Instruction: (requirements)

1. **Use of and instruction in correct math terminology is critical.**
    a. Use the language of your standards.
    b. Do not substitute 'cute' words for accurate terminology.
    c. Have students use the vocabulary multiple times in a variety of contexts.
    d. Have students practice categorizing words and have them explain their rules for sorting.
    e. Mathematical vocabulary must be evident on Word Walls.
    f. Teach vocabulary to mastery.
2. **Consistently use the High-Yield Routines.**
    These routines allow students to practice concepts with higher-order thinking. They incorporate writing with thinking about math.
3. **Use the mathematical practices. They matter.**
    a. Plan with the practices in mind. Sample questions to think about when planning: 'What mathematical practice(s) will I be using when I model this task?' 'What mathematical practice(s) will my students have to use to solve this problem?'
    b. Read the descriptions of what 'mathematically proficient' students do (see the previous two pages), and consistently check to see if your students are growing toward that goal.
4. **Routinely practice having students justify their answers.** Ex. 'Show us how you arrived at that answer. What math concepts did you use to arrive at that answer?'
5. **Always reinforce number sense.** Ask: 'Is this a reasonable answer? Why or why not?'
6. **Teach and practice the basic facts to automaticity. No exceptions. This is foundational to later math success.**
    a. By the end of second grade students should have developed fluency with the basic addition and subtraction facts. This means that they can quickly (with automaticity) give answers for problems like 2 + 6 or 8 + 5, even when those are embedded in more difficult problems. Turning problems around like 13 – 5 = 8 because 8 + 5 = 13 should make sense to them. In other words they should not be stumbling over the basic math.
    b. In third and fourth grades student must develop automaticity with basic multiplication facts. Third grade builds a strong conceptual foundation and begins moving toward fluency and fourth-grade assures that automaticity is reached.
7. **Practice word problems at all levels in a variety of contexts. This goes well beyond teaching key words for solving word problems. Over teaching key words can hinder later math understanding.**
    a. Teach them to understand the problem.
        i. What does it say?
        ii. What information does it provide?
        iii. What is the question?
        iv. What information do I need to answer the question (relevant vs. irrelevant)?
        v. What math procedure(s) will I need to complete to answer the question?
        vi. What tools are available to help me? (drawing, visualizing, graphing or charting, measuring, numberline, etc.)
8. **Make tools visible.** Talk about and practice using mathematical tools. Make them available in the classroom. Discuss which tools are appropriate in which situations.
9. **Have students respond in a variety of ways to questions. Questions should challenge student thinking.**
    (See question types in the Test Item Specifications.)

10. Important Concepts Across Grade Levels:

a. Equivalence – students need to understand that the answer does not always follow the = sign (ex. □+3 = 2+4, □ = 4+3)
b. Fractions – students must experience and understand equal parts of a whole leading into formal fraction instruction in third grade.
c. Use of the number (a ruler is an example of a numberline) – facility with the numberline is critical for later work with fractions.
d. Solving problems by drawing the concepts – Students who learn to use fraction bars and to draw fractions and fractional combinations can better visualize the m ore difficult operations with fractions.

11. Math will be taught for 90 minutes every day. This does not have to be uninterrupted.

12. Attention must be paid to the *Cognitive Complexity* of items to help determine the rigor of the instruction and expectation.

Math Progress Monitoring

Progress monitoring must be ongoing in classrooms throughout the year. This includes, but is not limited to, the following:

1. Ongoing checks for development of fluency with basic math facts;
2. Formative assessments on math concepts like equivalency, number, parts of a whole, etc., as appropriate to the grade level standards;
3. Formative assessment through interaction with students as they explain problem solving. It is critical to catch and correct misconceptions early.
4. Review of responses to the High-Yield Routines.

Grading should accurately reflect the students' accomplishment of the grade level standards. If a student is making an 'A', that means that the student is able to, after instruction, independently perform at an above-average level. Be careful of overweighting grades with work habits and citizenship considerations. Grades should reflect a variety of assessments that allow the students to demonstrate proficiency.

Formal Progress Monitoring will occur quarterly.
All students will participate in formal progress monitoring quarterly using Discovery Education Assessments.
Data will be reviewed at the district, school, and classroom level.
Follow-up instruction on for students who are not performing on level is required.

Resources:

- CPALMS – lesson resources and formative assessments are linked to the standards in CPALMS.
- www.FSAssessments.org - This is the link to the online portal with information on the new Florida assessments. Teachers are expected to review and use the test item specifications for their respective grade levels. You will have to cut and paste this address into your browser address bar.
- Math iXL – for ongoing reinforcement and for targeted practice of skills. Please note that this practice does not preclude the necessity for ongoing instruction and problem solving with answer justification in the classroom.

First Grade Florida Standards for Math - Course #5012030

BODY OF KNOWLEDGE: OPERATIONS AND ALGEBRAIC THINKING

Cluster 1: Represent and solve problems involving addition and subtraction

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.1.1	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.([1]Students are not required to independently read the word problems.) *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• There is a relationship between addition and subtraction. • When adding, the sum will be greater. • When subtracting, the difference will be less. • Comparing involves subtraction. • There is more than one way to solve a word problem. **The student is able to:** • Use different strategies to solve addition word problems up to 20. • Use different strategies to solve subtraction word problems within 20.	• I can solve addition and subtraction word problems up to 20 in a way that makes sense to me. • I can write an equation using the correct symbols to solve word problems with sums or differences up to 20.

Key Vocabulary: Add (+) Subtract (-) Solve. Compare. Sum .Difference .Equal (=), Symbol

Resources:

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.1.2	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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• The sum is greater than the addends. • A symbol can take the place of a number. **The student is able to:** • Solve a story problem with three numbers and an unknown addend. • Use objects, drawings, or equations with a symbol to find the unknown addend in a story problem.	• I can solve addition story problems with 3 numbers up to 20 using a symbol for the missing addend , • I can use drawings and objects to help me solve word problems.

Key Vocabulary: symbol unknown addend equation

Resources:

Cluster 2: Understand and apply properties of operations and the relationship between addition and subtraction

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.2.3	Apply properties of operations as strategies to add and subtract. 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	• There are various strategies (properties of operation) that can be used to solve addition and subtraction problems. • Numbers consistently work in certain ways. **The student is able to:**	• I can add and subtract in ways that make sense to me. • I can add two numbers in any order to get the same sum.

	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.) *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Apply properties of operations as strategies to add and subtract problems within 20. • Explain strategy used to add and subtract.	• I can group numbers in an equation to solve the equation.
Key Vocabulary: Strategies			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.2.4	Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Addition and subtraction facts are related. **The student is able to:** • Write a subtraction number sentence and its related addition number sentence. • Model using addends and sums to subtract • Identify patterns in the writing of number families.	• I can use addition facts to help me subtract.
Key Vocabulary: Addend, Unknown			
Resources:			

Cluster 3: Add and subtract within 20

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.3.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). *Cognitive Complexity:* Level 1: Recall	• Counting is an indication of increasing the number by one. • When you count, the last number said is the total amount. • A number is decreased when objects are subtracted. • When you count backwards, the last number said is the amount left. **The student is able to:** • Apply concepts of counting on and counting back. • Explain why and how a number gets bigger or smaller. • Construct a model to show addition or subtraction.	• I can choose objects or draw a picture to show counting on as addition • I can choose objects or draw a picture to show counting back as subtraction. • I can count on from a given number to add. • I can count back from a given number to subtract.
Key Vocabulary: addition, subtraction			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.3.6	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). *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Addition means combining to find the sum. • Subtraction means taking away or comparing to find the difference. • There is a relationship between addition and subtraction problems. • Numbers represent a value and symbols represent an operation. • There are various strategies that can be used for addition and subtraction problems. • Fluency is important to efficient problem solving. **The student is able to:** • Recall addition and subtraction problems up to 10 fluently. • Use manipulatives to demonstrate different strategies for addition and subtraction. • Explain the strategy used to solve problems up to 20. • Choose a strategy to use when working an addition or subtraction problem.	• I can add numbers up to 20 in many different ways. • I can subtract numbers up to 20 in many different ways. • I can fluently solve addition up to 10. • I can fluently solve subtraction up to 10.
Key Vocabulary: fluency, strategies			
Resources:			
Cluster4: Work with addition and subtraction equations.			
Standard Identifier	**Standard with Complexity Rating**	**Conceptual and Procedural Understanding – The student understands that:**	**Student Friendly Language Learning Targets**
MAFS.1.OA.4.7	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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• An equal sign represents balance on both sides of the equation. • The equal sign does not always point to the answer. **The student is able to:** • Explain meaning of equal sign. • Demonstrate understanding of equal sign. • Determine whether an addition or subtraction equation is true or false. • Demonstrate that an equation is balanced with the equal sign in any position. • Use manipulatives to show how the two sides of an equation are equal.	• I can explain that the equal sign means “the same as”. • I can determine whether an addition or subtraction number sentence is true or false. • I can show how an equation is balanced on each side of the equal sign.
Key Vocabulary: addition, subtraction, number sentence, balanced equation, true and false, equations, equal, +, -, =			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.OA.4.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• The relationship between two whole numbers will determine the value of the unknown, third whole number. • An equation has to have the same value on both sides of the equal sign. • The plus sign means to join two numbers. • The minus sign means to take away a determined amount from a group. **The student is able to:** • Explain and demonstrate how both sides of an equation are equal. • Explain and demonstrate how the unknown number was found. • Solve an equation to find the unknown number in an addition or subtraction sentence. • Utilize a variety of strategies to find an unknown number in an equation.	• I can find the missing number in an addition sentence (equation). • I can find the missing number in a subtraction sentence (equation).
Key Vocabulary: whole number, plus/minus, sum/difference, number sentence, balanced equation			
Resources:			

BODY OF KNOWLEDGE: NUMBER AND OPERATIONS IN BASE TEN

Cluster 1: Extend the counting sequence.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.1.1	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. *Cognitive Complexity:* Level 1: Recall	• Written numbers can represent a quantity of objects. • Numbers can be read. • Numbers can be written. • Numbers are in sequential order according to the representation of the number. **The student is able to:** • Start at any given number less than 120, and count to 120. • Read numbers from 0 to 120. • Write numerals from 0 to 120. • Identify and match objects using one-to-one correspondence with any given number from 0 to 120.	• I can start at any number and count to 120. • I can read my numbers from 0 to 120. • I can write my numbers from 0 to 120. • I can count, tell, and write how many objects are in the group.

Key Vocabulary: quantity, identify ,count on, represent, one-to-one correspondence, sequential

Resources:

Cluster 2: Understand place value.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.2.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. 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 ones). d. Decompose two-digit numbers in multiple ways (e.g., 64 can be decomposed into 6 tens and 4 ones or into 5 tens and 14 ones). *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• The two digits of a two-digit number represent amounts of tens and ones. • A bundle of ten ones is called a "ten." • The numbers from 11 to 19 are 1 ten and the appropriate number of ones. (e.g. 11 is 1 ten and 1 one.) • The numbers ending in zero from 10 to 90 include the appropriate number of tens and zero ones. (e.g. 30 is 3 tens and 0 ones.) • Numbers can be decomposed into tens and ones(e.g. 54 is 5 tens and 4 ones **The student is able to:** • Identify tens and ones in any two-digit number. • Create and explain a "ten." • Show and explain tens and ones in any two-digit number. • Organize a group of objects into tens and ones and tell what number it represents. • Decompose two-digit numbers	• I can tell/show the number of tens and ones in any two-digit number. • I can tell what each digit means in a two-digit number. • I can group objects into tens and ones and tell what number it represents. • I can bundle ten ones and know it is called a" ten." • I can tell/show how to take two digit numbers and bundle them into ten(s) and one

Key Vocabulary: place value tens and ones bundle two-digit number

Resources:

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.2.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Every number has a different value. • A digit located in the tens place means that many groups of ten. • A digit located in the ones place means that many ones. • Numbers can be greater than, less than, or equal to each other. • Comparisons of numbers can be recorded using symbols. • < means greater than. • < means less than. • = means the same as or equal. **The student is able to:** • Compare two two-digit numbers. • Explain a comparison of two two-digit numbers. • Use the appropriate symbol (<, >, =) to represent the comparison of two numbers.	• I can compare two two-digit numbers based on the meaning of the ones digit. • I can compare two two-digit numbers based on the meaning of the tens digits. • I can record how two two-digit numbers compare using symbols >, =, and <.
Key Vocabulary: compare/comparison two-digit numbers tens and ones record results greater than less than equal			
Resources:			

Cluster 3:Use place value understanding and properties of operations to add and subtract.

ADDITIONAL CLUSTER - Don't…Sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.3.4	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 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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Numbers have place value. • A variety of strategies can be used to solve addition and subtraction problems. • Number sentences are used to show how numbers were added or subtracted. **The student is able to:** • Add 10 to numbers 1 - 90. • Use objects or drawings to explain strategies used to add. • Compose a ten to help solve a problem (2 + 8 + 3 = 10 + 3 = 13) • Write number sentences to show how numbers were added or subtracted. • Add two-digits to one-digit. • Add two-digits and a multiple of 10. • Explain the reasoning used to solve a problem.	• I can use objects or drawings and explain how I solved a 2-digit addition problem. • I can add 10 to any 1- or 2-digit number. • I can compose a ten to help me add multiple numbers. • I can explain how I got my answer.
Key Vocabulary: addition, subtraction, place value, digits, multiples of ten			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.3.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• There is a pattern formed by adding 10 to numbers. **The student is able to:** • Mentally add 10 to any two-digit number. • Mentally subtract 10 from any two-digit number. • Explain the reasoning used to get the answer.	• I can add ten to any two-digit number using only my head. • I can subtract ten from any 2-digit number using only my head. • I can explain how I got my answer.
Key Vocabulary: two-digit numbers, mental math			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.NBT.3.6	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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• A variety of strategies can be used to add or subtract. • Number sentences are used to show how numbers were added or subtracted. • 20, 30, 40, 50, etc. are multiples of 10. **The student is able to:** • Subtract multiples of 10 from multiples of 10 in the range 10 to 90 (ex. 80 – 40 = 40). • Use objects or drawings to explain strategies used to subtract. • Write number sentences to show how numbers were added or subtracted. • State how many 10s are in a number from 10 – 90.	• I can subtract 10 from any multiple of 10 up to 90. • I can use drawings or models to explain how I solved a problem. • I can write a number sentence to show how I subtracted. • I can explain the thinking I used to solve a problem.
Key Vocabulary: equations, number sentences, strategies, manipulatives, multiples			
Resources:			

BODY OF KNOWLEDGE: MEASUREMENT AND DATA

Cluster 1: Measure lengths indirectly and by iterating length units.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.MD.1.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Objects can be compared by length. • You can use one object to describe the length of other objects. • Objects can be put in order from shortest to longest and vice versa. **The student is able to:** • Compare the lengths of objects. • Organize up to three objects by their length. • Use one object to compare the length of other objects.	• I can order objects by length. • I can use one object to help me tell about the length of other objects. • I can use one object to help me compare the length of other objects.
Key Vocabulary: length, compare, object, order			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.MD.1.a	Understand how to use a ruler to measure length to the nearest inch. a. Recognize that the ruler is a tool that can be used to measure the attribute of length. b. Understand the importance of zero point and that the length measure is the span between two points. c. Recognize that the units marked on a ruler have equal length intervals and fit together with no gaps or overlaps. These equal interval distances can be counted to determine the overall length of an object. Cognitive Complexity: Level 2: Basic Application of Skills and Concepts	• Recognize that a ruler is a tool that is used to measure length. • A standard unit of measure is always the same. • A ruler is divided into equal segments. • A ruler is a type of numberline. • An inch is a standard unit of measure for measuring length. **The student is able to:** • Identify a ruler as a tool to measure length. • Demonstrate the use of the zero point when measuring the span between two points. • Use a ruler to measure lengths shorter than 12 inches. • Express a length in terms of inches.	• I can use a ruler to measure how long something is. • I can identify the zero point on a ruler.
Key Vocabulary: measure, unit, end-to-end, gaps, overlaps, whole number, zero point, standard, equal, numberline, span			
Resources:			

Cluster 2: Tell and Write

ADDITIONAL CLUSTER - Don't…Sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.MD.2.3	Tell and write time in hours and half-hours using analog and digital clocks. *Cognitive Complexity:* Level 1: Recall	• Clocks are used to measure time. • There are different kinds of clocks. • Some clocks are digital. • Some clocks are analog. • The measurement vocabulary for time includes hour, half-hour, and minute. (Other terms are added in other grades.) • There is a particular way to express time in writing. **The student is able to:** • Tell and write time to the hour using an analog clock. • Tell and write time to the hour using a digital clock. • Tell and write time to the half-hour using an analog clock. • Tell and write time to the half-hour using a digital clock.	• I can tell and write time to the hour using an analog clock. • I can tell and write time to the hour using a digital clock. • I can tell and write time to the half-hour using an analog clock. • I can tell and write time to the half-hour using a digital clock.

Key Vocabulary: clock, analog, digital, time

Resources:

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.MD.2.a	Identify and combine values of money in cents up to one dollar working with a single unit of currency[1]. a. Identify the value of coins (pennies, nickels, dimes, and quarters.) b. Compute the value of combinations of coins (pennies and/or dimes). c. Relate the value of pennies, dimes, and quarters to the dollar (e.g., There are 100 pennies or ten dimes or four quarters in one dollar.)([1]Students are not expected to understand the decimal notation for combinations of dollars and cents.)	• Coins have different sizes and appearances. • Coins are units of currency. • Skip counting can be used to compute the value of a single unit of currency. • Groups of pennies, dimes, or quarters can be equal to one dollar. **The student is able to:** • Identify coins (penny, nickel, dime, quarter) • Identify the value of coins (penny, nickel, dime, quarter) • Compute the value of combinations of pennies and/or dimes by counting and by adding. • Tell how many pennies, dimes, or quarters equal one dollar.	• I can name each coin. • I can tell the value of each coin. • I can find the value of a group of dimes and/or pennies. • I can tell how many pennies, dimes, or quarters equal one dollar.

Key Vocabulary: coin, penny, nickel, dime, quarter, value, combination

Resources:

Cluster 3: Represent and interpret data.

ADDITIONAL CLUSTER - Don't…Sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.MD.3.4	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. *Cognitive Complexity:* Level 3: Strategic Thinking & Complex Reasoning	• Data is information. • Data can be organized. • Data can be categorizes and represented in a variety of ways. • Data can be interpreted after it has been organized. • There are different types of data. • Math skills are used to interpret data. **The student is able to:** • Record data. • Organize up to three categories of data. • Ask and answer questions about data. • Understand and use descriptive words like more and less to describe data. • Use math skills to help interpret data.	• I can record and read data. • I can tell and explain information about data. • I can answer questions about data.

Key Vocabulary: data, data points, organize, interpret, categories, differences

Resources:

BODY OF KNOWLEDGE: GEOMETRY

Cluster 1: Reason with shapes and their attributes.

ADDITIONAL CLUSTER - Don't…Sort clusters from Major to Supporting, and then teach them in that order. To do so would strip the coherence of the mathematical ideas and miss the opportunity to enhance the major work of the grade with the supporting clusters.

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.G.1.1	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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Shapes have defining attributes. • Shapes have non-defining attributes. • Shapes have similarities and differences. **The student is able to:** • Identify defining and non-defining attributes. • Compare and sort shapes by their attributes. • Use defining attributes to identify shapes. • Build and draw shapes with certain defining attributes (Ex. draw a closed triangle.)	• I can recognize and identify the attributes of shapes. • I can build and draw shapes that have certain attributes. • I can compare and sort shapes based on their attributes.

Key Vocabulary: defining attributes, non-defining attributes, similarities, differences, build, compare, sort

Resources:

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.G.1.2	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] *[4]. Students do not need to learn formal names such as "right rectangular prism.* *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Shapes can be two-dimensional or three-dimensional. • Shapes can be composed of other shapes. • There are many kinds of shapes. • A composite shape is a shape created from other shapes. (i.e., two triangles to make a square) • **The student is able to:** • Use more than one 2-D or 3-D shape to create a composite shape. • Create additional shapes from the composite shapes. • Identify shapes within composite shapes.	• I can use 2-D shapes to create another shape. • I can use 3-D shapes to create another shape. • I can identify the shapes used to make a composite shape.
Key Vocabulary: 2-D shapes, 3-D shapes, composite shapes			
Resources:			

Standard Identifier	Standard with Complexity Rating	Conceptual and Procedural Understanding – The student understands that:	Student Friendly Language Learning Targets
MAFS.1.G.1.3	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, 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. *Cognitive Complexity:* Level 2: Basic Application of Skills & Concepts	• Circles and rectangles can be divided into smaller, equal shares. • The terms halves, fourths, quarters are used to describe equal shares of two and four parts. • Dividing a circle or rectangle into halves or fourths creates smaller, equal shares. • The words halves, fourths, quarters, whole are used when talking about equal shares. **The student is able to:** • Divide a circle or rectangle into two equal shares or parts. • Divide a circle or rectangle into four equal shares or parts. • Identify one half of a circle or rectangle. • Identify one fourth of a circle or rectangle. • Identify a quarter of a circle or rectangle. • Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares	• I can divide a circle or rectangle into two equal shares. • I can divide a circle or rectangle into four equal shares. • I can describe the parts of a circle or rectangle as halves, fourths, or quarters. • I can describe one part of a circle or rectangle as one half of, one fourth of, or one quarter of. • I can describe a whole circle or rectangle as having two equal shares or four equal shares. • I can tell that when there are more shares, the shares are smaller.
Key Vocabulary: equal, fair shares, half, halves, fourth, fourths, quarter, quarters, whole, divide			
Resources:			

First Grade Math Vocabulary				
2-D shapes	Determine	Manipulatives	Plus/minus	three-digit number
3-D shapes	Difference	Measure	Quantity	True
Add	Digits	Mentally	Quarters	Two-digit number
Add/subtract	Divide	More	Reasoning	Unit
Addend	Draw	multiples	Record	Unknown
Addition	End-to-end	Multiples of ten	Rectangle	Value
Balanced	Equal	Non-defining attributes	Represent	Whole number
Build	Equation	Number	Results	Wholes
Bundle	Fair shares	Number sentence	Sentence	
Categories	False	Numeral	Sequential	
Circle	Fluency	Object	Similarities	
Compare/comparison	Fourths	Ones	Solve	
Composite shapes	Gaps	One-to-one	Sort	**NEW:**
Correspondence	Greater than	Order	Strategies	coins
Count	Halves	Organize	Subtract	penny
Counting	Identify	Overlaps	Subtraction	dime
Data	Interpret	Parts	Sum	quarter
Data points	Length	Place	Sum/difference	dollar
decompose	Less	Place value	Symbol	money
Defining attributes	Less than		Tens	currency

<u>Sample</u> Categories for Math Vocabulary

Fraction Words	Operation Words	Place Value Words	Math Action Words	Money Words
whole half halves fourth fourths part quarter quarters	add subtract addition subtraction adding ten mental math sum difference	ones tens hundreds place value base ten	model draw build bundle compose decompose record interpret solve determine	Coin Penny Quarter Nickel Dime Dollar currency

For more information on vocabulary categories, see the resource in the Resources for Implementation section of the ELA Curriculum Guide.

First Grade MATH Pacing Guide - 2014-15

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Overarching Concepts	Understanding addition and subtraction; equivalency; number sense and counting	Understanding addition, subtraction; fluency with basic +/- facts; reasoning with shapes and attributes	Understanding whole number relationships and place value; Measurement: time, length; parts of a whole	Understanding whole number relationship and place value; identify and combine values of money;
Standards/ Learning Targets	**MAFS.1.OA.1.1** – Use different strategies to solve addition and subtraction word problems. **MAFS.1.OA.2.3** – Apply properties of operations as strategies to add and subtract problems. **MAFS.1.OA.2.4** – Write a subtraction number sentence and its related addition number sentence. Model using addends and sums to subtract. Identify patterns in the writing of number families. **MAFS.1.OA.3.5** – Apply concepts of counting on and counting back. Explain why and how a number gets bigger and smaller. Construct a model to show addition or subtraction. **MAFS.1.OA.3.6** – Use manipulatives to demonstrate different strategies for addition and subtraction. **MAFS.1.OA.4.7** –explain the meaning of equal sign. Demonstrate understanding of equivalence. Use manipulatives to show how the two sides of an equation are equal. **MAFS.1.MD.3.4** – Record data. Understand and use descriptive	**MAFS.1.OA.1.1** – Use different strategies to solve addition and subtraction word problems. **MAFS.1.OA.1.2** – Use objects, problems, or equations with a symbol to find the unknown addend in a story problem. **MAFS.1.OA.2.3** – Apply properties of operations as strategies to add and subtract problems. **MAFS.1.OA.2.4** – Write a subtraction number sentence and its related addition number sentence. Model using addends and sums to subtract. Identify patterns in the writing of number families. **MAFS.1.OA.3.5** – Apply concepts of counting on and counting back. Explain why and how a number gets bigger and smaller. Construct a model to show addition or subtraction. **MAFS.1.OA.3.6** – Use manipulatives to demonstrate different strategies for addition and subtraction. Recall addition and subtraction facts with numbers up to 10 fluently. **MAFS.1.OA.4.7** –Explain the meaning of equal sign.	*Continue developing fluency and application with addition and subtraction.* **MAFS.1.OA.1.2** – Solve a story problem with three numbers and an unknown addend. **MAFS.1.NBT.1.1** - Start at any given number less than 120, and count to 120. Fluently read and write numerals to 120. Identify and match objects using one-to-one correspondence with any given number from 0 – 120. **MAFS.1.NBT.2.2** – Identify tens and ones in any two-digit number. Create and explain a 'ten'. Show and explain tens and ones in any two-digit number. Organize a group of objects into tens and ones and tell what number it represents. **MAFS.1.NBT.3.4** – Use objects or drawings to explain strategies used to add. Compose a ten to help solve a problem (2+8+3=10+3=13). Write number sentences to show how numbers were added or subtracted. Explain the reasoning used to solve a problem. **MAFS.1.NBT.3.6-** Use objects or drawings to explain strategies used to subtract. Write number sentences to show how numbers	*Continue developing fluency and application with addition and subtraction.* **MAFS.1.MD.3.4** – Organize up to three categories of data. **MAFS.1.NBT.2.2** – Decompose two-digit numbers **MAFS.1.NBT.3.4** – Add 10 to numbers 1-90. Use objects or drawings to explain strategies used to add. Compose a ten to help solve a problem (2+8+3=10+3=13). Write number sentences to show how numbers were added or subtracted. Explain the reasoning used to solve a problem. **MAFS.1.NBT.3.6** – Subtract multiples of 10 from multiples of 10 in the range 10 to 90. Ex. 80-40=40. Use objects or drawings to explain strategies used to subtract. Write number sentences to show how numbers were added or subtracted. State how many 10s are in a number from 10 – 90.

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
	words like more and less to describe data. Ask and answer questions about data. Use math skills to help interpret data. **MAFS.1.NBT.1.1** – Start at any given number less than 100, and count to 100. Fluently read and write numerals to 50. Identify and match objects using one-to-one correspondence with any given number from 0 – 100.	Demonstrate understanding of equivalence. Use manipulatives to show how the two sides of an equation are equal. Demonstrate that an equation is balanced with the equal sign in any position. **MAFS.1.OA.4.8** – Explain and demonstrate how both sides of an equation are equal. Explain and demonstrate how the unknown number was found. Utilize a variety of strategies to find an unknown number in an equation. Solve an equation to find the unknown number in an addition or subtraction sentence. **MAFS.1.G.1.1** – Identify defining and non-defining attributes. Compare and sort shapes by their attributes. Use defining attributes to identify shapes. Build and draw shapes with given defining attributes (Ex. Draw a closed triangle.) **MAFS.1.G.1.2** – use more than one 2-D or 3-D shape to create a composite shape. Create additional shapes from the composite shapes. Identify shapes within composite shapes. **MAFS.1.MD.3.4** – Ask and answer questions about data. Use math skills to help interpret data.	were added or subtracted. State how many 10s are in a number from 10 – 90. **MAFS.1.G.1.3** – Divide a circle or rectangle into two equal shares or parts. Divide a circle or rectangle into four equal shares or parts. Identify one half of a circle or rectangle. Identify one-fourth of a circle or rectangle. Identify a quarter of a circle or rectangle. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares **MAFS.1.MD.1.1** – Compare the lengths of objects. Organize up to three objects by their length. Use one object to compare the length of other objects. **MAFS.1.MD.1.a** – Identify a ruler as a tool to measure length. Demonstrate the use of the zero point when measuring the span between two points. Use a ruler to measure lengths shorter than 12 inches. Express a length in terms of inches. **MAFS.1.MD.2.3** – Tell and write time to the hour using an analog clock. Tell and write time to the hour using a digital clock. Tell and write time to the half-hour using an analog clock. Tell and write time to the half hour using a digital clock.	**MAFS.1.NBT.2.3** – Compare two two-digit numbers. Explain a comparison of two two-digit numbers. Use the appropriate symbol (<, =, >) to represent the comparison of two numbers **MAFS.1.NBT.3.5** – Mentally add 10 to any two-digit number. Mentally subtract 10 from any two-digit number. Explain the reasoning used to get the answer. **MAFS.1.MD.2.a** – Identify the value of coins (pennies, nickels, dimes, and quarters). Identify coins. Compute the value of combinations of pennies and/or dimes by counting and by adding. Tell how many pennies, dimes, or quarters equal a dollar.

	Quarter 1	Quarter 2	Quarter 3	Quarter 4
High-Yield Routine(s)	Today's Number Pg. 5 High-Yield Routines	Quick Images (page. 45 High-Yield Routines	Mystery Number (pg. 13 High-Yield Routines)	How Do You Know? (pg. 63 High-Yield Routines)
Target Vocabulary	Add, subtract, addition, subtraction, solve, compare, sum, difference, combine, equal, symbol, addend, equation, strategies, represent, true/false, categories, organize, interpret, count on, more, less	Model, attributes, similarities, differences, build, compare, sort, two-dimensional shapes, three-dimensional shapes, composite, equal, whole, digit, two-digit number, compose, decompose, Mental math, balanced equation	Shares, half/halves, fourth/fourths, quarter/quarters, divide, part, place value, tens, ones, order, less than, greater than, pattern, bundle, digital, analog, hour, minute, half-hour, hour hand, minute hand, ruler, inch, measure, length	Value, penny, nickel, dime, quarter, cent, dollar, coin, money, decompose
Essentials to Remember	• Students need strong number sense and fluency with addition and subtraction to ten. • Data should be reviewed all year. • Students must understand that the equation has to have the same value on both sides of the equal sign.	• Continue to build number sense and fluency with basic facts. • Students must have strong conceptual knowledge of equivalency and +/- in order to work with missing addends.	• Continue to develop fluency with addition and subtraction basic facts. • Use first semester concepts for word problems and applications. • A ruler is a number line. • Relate telling time to dividing a circle in half. • Relate coins to parts of a whole.	• Continue to review concepts from first semester. • Extend double-digit addition and subtraction to include money (dimes and pennies).