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Mission Statement
Develop the highest quality math instruction to maximize student achievement through alignment of grade-level benchmarks to appropriate instructional practices, materials, resources, and pacing.

Suggestions for Implementing Curriculum Guides
The role of the teacher is to:
- Teach students the Common Core Standards as dictated by state law for their grade-level.
- Provide learning-rich classroom activities that teach the benchmarks in depth.
- Enhance the curriculum by using resources and instructional technology.
- Differentiate instruction by varying methods of instruction and frequently offering relevant lab activities.
- Regularly administer assessment to include higher-level questions, and performance task assessment.
- Embed Standards for Mathematical Practice into each lesson.

In addition, teachers should:
- Collaborate with other grade-level teachers to maximize school resources and teacher expertise.
- Consult with other grade-levels to define absolute skill goals for each grade-level.
- Document questions and suggestions for improvement of the curriculum Guide.
- Integrate science into math and reading curriculum.
- Consider applying for a grant to support project-based learning for their school.
- Visit the Okaloosa Math Central Website at: http://www.okaloosa.k12.fl.us/math

Days allotted to each benchmark are approximate and have been suggested based on the level of the complexity of the benchmark. To insure benchmarks are taught to mastery and completed by the conclusion of the school year, it is recommended that teachers not veer significantly from the suggested pacing.
Florida Department of Education ∞ Office of Math and Science Essential Websites

Common Core Kindergarten Math Standards

Progressions Documents for the Common Core Math Standards:
http://ime.math.arizona.edu/progressions/#

Searchable State Standards Database:
http://www.floridastandards.org/index.aspx

Printable Downloads of Next Generation Sunshine State Standards with or without remarks:
http://www.floridastandards.org/downloads.aspx
OCSD Curriculum and Pacing Guide  ∞  Overview

This document provides a math curriculum and pacing guide. It is designed to help teachers to efficiently pace the delivery of quality instruction for each nine-week period.

**Purpose:**
This guide was created by a team of grade-level teachers to correlate to the Common Core Standards with the goal of providing teachers ready access to resources for teaching those new standards and a pace for accomplishing benchmark mastery.

**Description:**
The OCSD Math Curriculum Guide specifies the math content to be covered within each nine-week instructional period. The guide identifies Common Core Standards. Furthermore, it allows teachers to input information specific to their students or school needs.

- The Quarterly Benchmarks (pages 9-14) are a synopsis of each quarter and identify the Common Core Domain along with clusters, a suggested timeline, textbook alignment, etc., in specific quarters.

- The Grade-level Curriculum Guide, beginning on page 15, is more detailed with Common Core Domain / cluster / Standard, alignment, formative assessments, additional resources (including technology, activities and more), literary connections/resources, and vocabulary listed.

**NOTE:**
Addendums to this curriculum guide, as well as additional information/forms will be posted at http://www.okaloosaschools.com/OkaloosaSchools/SchoolDistrict/CurriculumInstruction/CurriculumGuides/tabid/378/Default.aspx.
Mathematics | Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should see k to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The frst of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report Adding It Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, ef ciently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own ef cacy).

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.

2 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.

3 Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. 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.
4 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.

5 Use appropriate tools strategically.
Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. 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.

6 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.

7 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 $7 \times 8$ 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 $2 \times 7$ 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 $y$.

8 Look for and express regularity in repeated reasoning.
Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. 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 \((x - 1)(x^3 + x^2 + x + 1)\) 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.

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.
Mathematics » Kindergarten

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

1. Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 - 2 = 5$. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

2. Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Grade K Overview

- **Counting and Cardinality**
  - Know number names and the count sequence.
  - Count to tell the number of objects.
  - Compare numbers.

- **Operations and Algebraic Thinking**
  - Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

- **Number and Operations in Base Ten**
  - Work with numbers 11-19 to gain foundations for place value.

- **Measurement and Data**
  - Describe and compare measurable attributes.
  - Classify objects and count the number of objects in each category.

- **Geometry**
  - Identify and describe shapes.
  - Analyze, compare, create, and compose shapes.

- **Mathematical Practices**
  1. Make sense of problems and persevere in solving them.
  2. Reason abstractly and quantitatively.
  3. Construct viable arguments and critique the reasoning of others.
  4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

### Counting and Cardinality MACC.K.CC

**Know number names and the count sequence.**

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

**Count to tell the number of objects.**

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
   a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
   b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
   c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

**Compare numbers.**

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1
7. Compare two numbers between 1 and 10 presented as written numerals.

### Operations and Algebraic Thinking MACC.K.OA

**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**

1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Fluently add and subtract within 5.

### Number and Operations in Base Ten MACC.K.NBT

**Work with numbers 11–19 to gain foundations for place value.**

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

### Measurement and Data MACC.K.MD

**Describe and compare measurable attributes.**
1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

**Classify objects and count the number of objects in each category.**
3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

**Geometry MACC.K.G**
1. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
   - Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
   - Correctly name shapes regardless of their orientations or overall size.
   - Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”).

2. Analyze, compare, create, and compose shapes.
   - Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
   - Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
   - Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

As Florida transitions to the Common Core State Standard, the cognitive demand of tasks continues to be an important focus. Although the CCSS have not yet been rated for complexity, teachers should use the information contained below as a guide for rating the complexity of formative, summative, and problem solving classroom and/or assessment questions.

**Cognitive Complexity/Depth of Knowledge Rating for Mathematics**

Florida’s revised mathematics standards emphasize teaching and learning the most important K-12 mathematics concepts in depth at each grade level. After adoption of the new math standards, the Florida Center for Research in Science, Technology, Engineering and Mathematics (FCR-STEM) at Florida State University convened a group of Florida math teachers, district math supervisors, and math education faculty to rate the cognitive demand of each benchmark. Meeting in teams for each body of knowledge, they reviewed and discussed each benchmark, then reached consensus on level of cognitive complexity using a classification system adapted from the “depth of knowledge” system developed by Dr. Norman Webb at the University of Wisconsin.

Cognitive complexity refers to the cognitive demand of tasks associated with the benchmark. The depth of knowledge levels (Webb, 1999) reflect the relative complexity of thinking that a given benchmark demands of students — what it requires the student to recall, understand, analyze, and do. Florida’s depth of knowledge rating system focuses on expectations of students at three levels:

**Low Complexity**
This category relies heavily on the recall and recognition of previously learned concepts and principles. Items typically specify what the student is to do, which is often to carry out some procedure that can be performed mechanically. It is not left to the student to come up with a low complexity original method or solution. Skills required to respond to low complexity items include
- solving a one-step problem;
- computing a sum, difference, product, or quotient;
• evaluating a variable expression, given specific values for the variables;
• recognizing or constructing an equivalent representation;
• recalling or recognizing a fact, term, or property;
• retrieving information from a graph, table, or figure;
• identifying appropriate units or tools for common measurements; or
• performing a single-unit conversion.

**Moderate Complexity**

Items in the moderate complexity category involve more flexible thinking and choice among alternatives than low complexity items. They require a response that goes beyond the habitual, is not specified, and ordinarily has more than a single step. The student is expected to decide what to do—using informal methods of reasoning and problem-solving strategies—and to bring together skill and knowledge from various domains. Skills required to respond to moderate complexity items include

• solving a problem requiring multiple operations;
• solving a problem involving spatial visualization and/or reasoning;
• selecting and/or using different representations, depending on situation and purpose;
• retrieving information from a graph, table, or figure and using it to solve a problem;
• determining a reasonable estimate;
• extending an algebraic or geometric pattern;
• providing a justification for steps in a solution process;
• comparing figures or statements;
• representing a situation mathematically in more than one way; or
• formulating a routine problem, given data and conditions.

**High Complexity**

High complexity items make heavy demands on student thinking. Students must engage in more abstract reasoning, planning, analysis, judgment, and creative thought. The high-complexity item requires that the student think in an abstract and sophisticated way. Skills required to respond correctly to high complexity items include

• performing a procedure having multiple steps and multiple decision points;
• solving a non-routine problem (as determined by grade-level appropriateness);
• solving a problem in more than one way;
• describing how different representations can be used for different purposes;
• generalizing an algebraic or geometric pattern;
• explaining and justifying a solution to a problem;
• describing, comparing, and contrasting solution methods;
• providing a mathematical justification;
• analyzing similarities and differences between procedures and concepts;
• formulating an original problem, given a situation;
• formulating a mathematical model for a complex situation; or
• analyzing or producing a deductive argument.
## Quarterly Benchmarks

<table>
<thead>
<tr>
<th>Quarter 1</th>
<th>Quarter 2</th>
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</thead>
<tbody>
<tr>
<td><strong>Common Core Domain:</strong> K.CC.1-3 Counting and Cardinality (0-10)</td>
<td><strong>Common Core Domain:</strong> K.CC.1-3 Counting and Cardinality (11-20)</td>
</tr>
<tr>
<td>Textbook Chapters 1-3</td>
<td>Textbook Chapters 5-6</td>
</tr>
<tr>
<td><strong>Pacing:</strong> 10-15 days <em>per chapter</em></td>
<td><strong>Pacing:</strong> 30 days</td>
</tr>
</tbody>
</table>

### MACC.K.CC.1. Know number names and the count sequence
MACC.K.CC.1.3

1. Count to 100 by ones and by tens. *(0-25 by ones only)*
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). *(0-10)*
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). *(0-10)*

### MACC.K.CC.2. Count to tell the number of objects
MACC.K.CC.2.4-5

4. Understand the relationship between numbers and quantities; connect counting to cardinality. *(0-10)*
   a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
   b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
   c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many 10 things in a scattered configuration; given a number from 1–20, count out that many objects. *(0-10)*

### MACC.K.CC.3 Compare Numbers
MACC.K.CC.3.6-7

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. *(0-10)*
7. Compare two numbers between 1 and 10 presented as written numerals.

### MACC.K.OA.1. Understand addition as putting together and adding to and understand subtraction as taking apart and taking from.
MACC.K.OA.1.3-4

3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawing, and record each decomposition by drawing or equation (e.g., 5=2+3 and 5=4+1).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawing, and record the answer with a drawing or equation. At this time, the focus of this standard is drawing “ways to make/build a number” not on writing equations.

### MACC.K.NBT.1. Work with numbers 11-19 to gain foundations for place value
MACC.K.NBT.1.1

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.
   At this time, the focus of this standard is drawing “ways to make/build a number” not on writing equations.

### Patterns & Time

"Chapter 10 Patterns and Chapter 12 Time"

Patterns are assessed on DEA and other assessment instruments. Patterning and Time instruction can be addressed when chapters have been completed.


### Quarter 3

<table>
<thead>
<tr>
<th>MACC.K.CC.1. Know number names and the count sequence</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Count to 100 by ones and by tens. (0-75 by ones &amp; count by 10’s to 100)</td>
<td>1. Count to 100 by ones and by tens. (0-100 by ones)</td>
</tr>
<tr>
<td>MACC.K.OA.1. Understand addition as putting together and adding to and understand subtraction as taking apart and taking from</td>
<td>MACC.K.G.2. Identify and describe shapes. MACC.K.G.2.2-3</td>
</tr>
<tr>
<td>1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (0-5)</td>
<td>2. Correctly name shapes regardless of their orientations or overall size (3-Dimensional).</td>
</tr>
<tr>
<td>2. Solve addition and subtraction word problems, &amp; add and subtract within 10, e.g., by using objects or drawings to represent the problem. (0-5)</td>
<td>3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</td>
</tr>
<tr>
<td>3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., using objects or drawings, &amp; record each decomposition by a drawing or equation (e.g., 5 = 2 + 3; 5 = 4 + 1). (0-5)</td>
<td>4. Analyze and Compare 2D and 3D shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/”corners”) and other attributes (e.g., having sides of equal length).</td>
</tr>
<tr>
<td>4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</td>
<td>5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</td>
</tr>
<tr>
<td>5. Fluently add and subtract within 5. (0-5)</td>
<td>6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”</td>
</tr>
<tr>
<td>1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</td>
<td>1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</td>
</tr>
<tr>
<td>MACC.K.MD.2. Classify objects and count the number of objects in each category. MACC.K.G.2. Identify and describe shapes. MACC.K.G.2.1-2</td>
<td>2. Directly compare two objects with a measurable attribute in common, to see which object has “more of” or “less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter</td>
</tr>
</tbody>
</table>

### Quarter 4

<table>
<thead>
<tr>
<th>MACC.K.MD.2 Measurement and Data &amp; K.G.2 Geometry</th>
<th>MACC.K.OA.1 Operations and Algebraic Thinking <strong>MACC.K.OA.1-5 from Quarter 3 for 0-10 this quarter</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</td>
<td>Pacing: 5 days</td>
</tr>
<tr>
<td>2. Correctly name shapes regardless of orientations or overall size (2D)</td>
<td><strong>Utilize the End-Of-Year Resources to plan 10-15 days of lessons “Getting Ready for Grade 1”</strong></td>
</tr>
</tbody>
</table>

**Common Core Domain:** K.CC.1 Counting and Cardinality (0-75) & K.OA.1 Operations and Algebraic Thinking & K.NBT.1 Numbers and Operations in Base Ten

**Textbook Chapter 4, Supplemental material for deeper understanding of K.OA.1.1-5, and Supplemental material for deeper understanding of K.NBT.1.1**

Pacing: 30 days

**Common Core Domain:** K.CC.1 Counting and Cardinality (0-100) & K.G.2 Geometry & K.MD.1 Measurement and Data

**Textbook Chapters Chapter 9 and Chapter 11**

Pacing: 25-30 days

**Common Core Domain:** K.MD.2 Measurement and Data & K.G.2 Geometry

**Textbook Chapters 7 and 8**

Pacing: 10-15 days

**Quarter 3 (cont.)**

<table>
<thead>
<tr>
<th>MACC.K.G.2 Analyze, compare, create, and compose shapes</th>
<th>MACC.K.G.2 Analyze, compare, create, and compose shapes</th>
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</thead>
<tbody>
<tr>
<td>MACC.K.G.2.4-6</td>
<td>MACC.K.G.2.4-6</td>
</tr>
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</table>

**Quarter 3 (cont.)**
## Year long Standards

*To be taught at end of each quarter once other chapters are completed*

<table>
<thead>
<tr>
<th>Cluster / Benchmark Text Alignment</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
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</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td><strong>Text:</strong> Use as supplemental not assessed in Common Core Standards Chapter 12</td>
<td><strong>Example:</strong> None provided Calendar (months, numbers, days of week, yesterday, today, tomorrow) Days of the week and months of the year labels Season cycle charts Picture cards- time of day, seasons Dress up clothes Weather Charts/graphs <strong>Technology:</strong> CD's Harcourt-Country Countdown: Clock-A-Doodle-Do Jack Hartman- Math All Around Me- Today, Yesterday, and Tomorrow, Birthdays <strong>Online resources:</strong> <a href="http://www.starfall.com">http://www.starfall.com</a> <a href="http://illuminations.nctm.org/">http://illuminations.nctm.org/</a> <a href="http://www.floridastandards.org">www.floridastandards.org</a> click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on: any of the listed lessons and activities <a href="https://www-k6.thinkcentral.com">https://www-k6.thinkcentral.com</a> <strong>AIMS Activities:</strong> Calendar Clues (calendar/circle time) <strong>Math Their Way:</strong> Birthday Graphing</td>
<td><strong>Vocabulary:</strong> days of the week months of the year and season words morning afternoon evening day night week month year yesterday today tomorrow more time less time <strong>Literature:</strong> Jesse Bear What Will you Wear?: What Time is it Jesse Bear?: The Grouchy Ladybug: The Very Hungry Caterpillar: Cookies Week: Animal Seasons: Alexander and the terrible, Horrible, No Good Very Bad Day: Time To</td>
</tr>
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<td>Cluster / Benchmark</td>
<td>Formative Assessments</td>
<td>Additional Resources / Activities</td>
<td>Lit. Connection Vocabulary / Reading</td>
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<tr>
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<tr>
<td><strong>Patterns</strong></td>
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<tr>
<td><strong>Text:</strong></td>
<td></td>
<td></td>
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<tr>
<td>MA.K.A.4.1</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a></td>
<td>FLDOE Example: Students will complete patterns according to shape, size, and color. Consider up to two attributes at a time.</td>
<td></td>
</tr>
<tr>
<td>Chapter 10</td>
<td>(follow steps listed)</td>
<td>Tub manipulatives: Two color counters, cubes, pattern blocks, bears, color tiles, die cuts, real world objects, Pattern cards, stamps, ten frames, coins, work mats</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Subject Area: Mathematics</td>
<td>Technology:</td>
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<tr>
<td></td>
<td>✓ Grade Level: K</td>
<td>✓ Instructional Component Type</td>
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<tr>
<td></td>
<td>✓ Activity Resources</td>
<td>Category: Activity Resources</td>
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<tr>
<td></td>
<td>✓ Activities listed alphabetically; select specific activity for details</td>
<td>(Activities listed alphabetically; select specific activity for details)</td>
<td></td>
</tr>
<tr>
<td>Number Patterns</td>
<td></td>
<td>Online resources:</td>
<td></td>
</tr>
<tr>
<td>Students are given a worksheet and asked to identify and extend the growing or repeating numerical pattern. Students develop their own number pattern and create a model showing the pattern and the next three stages of the …</td>
<td>• CD's</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeating and Growing Patterns Using Pattern Blocks</td>
<td></td>
<td>• Jack Hartman: Math All Around Me; The Alligator Chomp; Make a Pattern 1; Make a Pattern 2; Harcourt: Shapes Ahoy-Ship Shapes</td>
<td></td>
</tr>
<tr>
<td>Students are shown one repeating pattern and one growing pattern of pattern blocks and asked to identify the repeating pattern and the growing pattern. Students are asked to create a new, different repeating pattern and growing pattern and to …</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Repeating and Growing Patterns Using Cubes</td>
<td></td>
<td>AIMS Activities: Going Nuts</td>
<td></td>
</tr>
<tr>
<td>The students identify, extend and describe a simple non-numeric repeating pattern. The students produce, describe, and identify their own numeric growing …</td>
<td></td>
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</tr>
</tbody>
</table>

**Vocabulary:**
- pattern
- pattern unit
- repeat

**Literature:**
- Math Counts: Pattern; The Goat in the Rug; Thump, Thump, Rat-a Tat; The Very Busy Spider; One, Two, Three, Jump; The Napping House; Pattern Fish;
- Animal Seasons; Snake Alley Band; Lots and Lots of Zebra Stripes
### Quarter 1

**K.CC—Counting and Cardinality (0-10)**

#### Essential Questions
- Can you count 0-25?
- Can you count from any given number?
- How can you show 0-10 with objects?

#### Common Core Standards for Mathematical Practice
- 1-7 (see pages 6-8)

| Cluster / Benchmark | Text: Chapters 1-3 | Formative Assessments | Additional Resources / Activities | Lit. Connection 
Vocabulary / Reading |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Know number names and count sequences (0-25 by ones).</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td>Example: Have 20 plastic cups with numbers 1 through 20 on them. Have each student fill one cup with number of beans written on the cup.</td>
<td>Chapter 1-3 Vocabulary: number number words zero-ten how many none after before same number few er more one more one fewer greater less equal to</td>
<td></td>
</tr>
<tr>
<td>MACC.K.CC.1.1-3</td>
<td>1. Count to 100 by ones and by tens. (0-25 by ones only) 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (0-10) 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (0-10)</td>
<td><strong>Tub manipulatives:</strong> Two color counters, cubes, counting bears, real world objects, number cards, dot cards, number line, number stamps, number templates, puzzles, ten frames, abacus, dominos, number spinners, number cubes, coins</td>
<td>Literature: Rosie's Walk, Anno's Counting House; Best Bug Parade; Harriet's Halloween Candy; Those Calculating Crows; The Doorbell Rang; What Comes in 2's, 3's, &amp; 4's; Stay in Line; 26 Letters and 99 Cents; The Case of the Missing Birthday Party</td>
<td></td>
</tr>
<tr>
<td>Text: Chapters 1-3</td>
<td>Counting Beans  The teacher says a whole number less than 21 and asks the student to write the stated number in a circle on a worksheet and then asks the student to place a matching quantity of beans or counters in the circle. This is done six times with different...</td>
<td><strong>Finger plays:</strong> One Two, Buckle My Shoe <strong>Technology:</strong> • CD's • Harcourt: Counting Critters; Cross Town Number Line; Lulu's Lunch Counter • Jack Hartman: Math All Around Me: This Old Man, Body Math, Animal Fingers, Chicken Count</td>
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<tr>
<td></td>
<td>Numeral Recognition, Matching, and Writing This lesson allows students to match numbers with the corresponding number of objects and to write that number.</td>
<td><strong>Online resources:</strong> <a href="http://illuminations.nctm.org/">http://illuminations.nctm.org/</a> <a href="http://www.floridastandards.org">www.floridastandards.org click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on any of the listed lessons and activities</a> <a href="https://www.k6.thinkcentral.com">https://www.k6.thinkcentral.com</a></td>
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<td><strong>AIMS Activities:</strong> Five Little Elves; M&amp;M Sort Math Their Way: Numeral Dice Toss, How Many Buttons, Posters for Numbers</td>
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</tbody>
</table>
# OKALOOSA COUNTY SCHOOL DISTRICT

## Math Curriculum Guide

### K.CC—Counting and Cardinality (0-10)

#### Essential Questions
- How can you show 0-10 with objects, pictures, numbers, and words?
- How can you create sets that have the same number, one more, or one fewer objects?
- How can you solve problems using sets that have more or fewer objects than a given set?
- How can you use what you know about number order to compare two numbers between 1 and 10 presented as written numerals?

#### Common Core Standards for Mathematical Practice
- 1-7 (see pages 6-8)

<table>
<thead>
<tr>
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<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
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</thead>
</table>
| Count to tell the number of objects. | http://www.florida standards.org/resources/ResourceSearch.aspx (follow steps listed)  
- Subject Area: Mathematics  
- Grade Level: K  
- Instructional Component Type Category: Activity Resources  
- (Activities listed alphabetically; select specific activity for details)  

**Story Time**  
Students listen to scenarios, use counters to model the scenarios, and determine which of the sets has more or less objects than the other.  

**Cardinal Meets Ordinal**  
Students count a set of objects and identify the fourth object, sixth object, and ninth object in a row.  

**How Many M&M’s?**  
Students are provided with manipulatives and verbally given a multi-step word problem to solve, applying the terms, fewer, more, least, and most. Students are asked to explain their thinking.  

**Animal Line-up**  
Students are given a set of cards with pictures of animals and asked to place the cards in order from the fewest pictures on a card to the most pictures on a card and to identify and explain a card’s ordinal position.  

**Example:**  
Students will compare sets by ordering numbers, by using concrete objects, and by using appropriate language such as none, more than, fewer than, same number of, and one more than.  

**Number cards, dot cards**  

**Tub manipulatives:**  
color tiles, cubes, counting bears, two-color counters, buttons, beans, dominos, ten frames, number lines, work mats/set rings, coins, balance scales, stamps, number cubes, spinners, bean bags, graphing mats, playing cards, number balance  

**Grab and Go Kit**  

**Technology:**  
CD’s Harcourt: Country Countdown- White Water  
Graphing, Harrison’s Comparisons, Counting Critters, Cross Town Number Line  

**Online Resources:**  
https://www-k6.thinkcentral.com  

**AIMS Activities:**  
No Room in the Tin; Solve It! Draw Out the Problem, Solve It! Super Safari Scrapbook, Solve It! Through the Window Numbers, Solve It! Bag a Bear, any graphing activities  

**Math Their Way:**  
My Turn, Your Turn, any graphing activities; Math Their Way Beyond the Book; Pop-Up Number Book, Our Beautiful Buttons  

| Chapter 1-3 Vocabulary:  
- number  
- number words zero-ten  
- how many  
- none  
- after  
- before  
- same number  
- fewer  
- more  
- one more  
- one fewer  
- greater  
- less  
- equal to  

**Literature:**  
Just Enough Carrots; How Many How Many; How Many How Many?; Is There Room on the Bus; One Duck Another Duck; Five Silly Fishermen; Ten Black Dots; The Crayon Counting Book; Mouse Count; Count; Count and See; Count With Maisy; Let’s Count It Out Jesse Bear; Curious George Counts; City by Numbers; One Mouse, Twenty Mice  

| Text:  
Chapters 1-3  

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**Notes:**

- REV 062012 KG MATH

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**K.OA—Operations and Algebraic Thinking**

**Essential Questions**
- How can you create and model addition and subtraction problems using pictures and or objects?
- How do the symbols +, -, and = show joining and separating?
- What are the different ways to make 0-5 using addition and subtraction?
- How can you solve addition and subtraction problems?

**Common Core Standards for Mathematical Practice**
- 2, 5, and 6 (see pages 6-8)

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<tbody>
<tr>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. MACC.K.OA.1.3-4</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td>Example: Students will use pictures and manipulatives to solve addition and subtraction problems.</td>
<td>Vocabulary: in all join and plus addition are left separate take away minus subtract add set</td>
</tr>
</tbody>
</table>
| 3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). (0-5) | ✓ Subject Area: Mathematics  
✓ Grade Level: K  
✓ Instructional Component Type Category: Activity Resources  
✓ (Activities listed alphabetically; select specific activity for details) | Tub manipulatives: Cubes, two color counters, buttons, beans, color tiles, counting bears, real world objects work mats, coins, dominos, number cubes, spinners, yarn, straws | Literature: Math Fables; Cats Add Up; Benny's Penny's; The Mission of Addition; The Action of Subtraction; Ten Little Ladybugs; Ten Sly Piranhas; The Crayon Counting Book; The Napping House; Silly Sally; Five Little Ducks; Ten Little Mice; Ten Little Crocodiles; Chrysanthemum; Three Ants; Six Dinner Sid; Ten Fireflies |
| 4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (0-5) | More Fun with Numbers | Students solve increasingly challenging join and separate word problems. | |
| Text: Chapter 4 On Core Lessons 44, 47, 56, 57, 58 | Fun with Numbers | Students solve a variety of simply join and separate word problems. | |
| Fish in a Bowl | Students are verbally given a start unknown word problem with numbers less than ten to solve. | Fish in a Bowl | |
| Cupcake Problem | The student is given a separate start unknown word problem to solve with counters, and a number line is accessible. The teacher asks the student to explain his or her thinking. | Cupcake Problem | |
| Children in the Pool Problem | The teacher gives the student a join change unknown word problem to solve and asks the student to justify his or her answer. The teacher provides manipulatives for the student to use. | Children in the Pool Problem | |

**Example:**

- **AMIS Activities:**
  - Sam and Sadie’s Super Safari Scrapbook, Through the Window Numbers; Number Story Theater; My Race in Space; Hidden Numbers; Balancing Equations; Circus Cage Count Math Their Way: Math Their Way Beyond the Book: Mitten Math

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**Technology:**
- CD’s Harcourt- Numberopols- Carnival Stories, Cross Town Number Line, Lulu’s Lunch Counter, Country Countdown- Block Busters, Counting Critters, Harrison’s Comparisons

**Online Resources:**
- [https://www-k6.thinkcentral.com](https://www-k6.thinkcentral.com)

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**Vocabulary:**
- in all join and plus addition are left separate take away minus subtract add set

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**Literature:**
- Math Fables; Cats Add Up; Benny's Penny's; The Mission of Addition; The Action of Subtraction; Ten Little Ladybugs; Ten Sly Piranhas; The Crayon Counting Book; The Napping House; Silly Sally; Five Little Ducks; Ten Little Mice; Ten Little Crocodiles; Chrysanthemum; Three Ants; Six Dinner Sid; Ten Fireflies
Quarter 2

K.CC—Counting and Cardinality (11-20)

**Essential Questions**
- Can you count 0-50?
- Can you count from any given number? (11-20)
- How can you show 11-20 with objects, pictures, numbers, and words?

**Common Core Standards for Mathematical Practice**
- 2, 5, and 6 (see pages 6-8)

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<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td>Example: Have 20 plastic cups with numbers 1 through 20 on them. Have each student fill one cup with number of beans written on the cup.</td>
<td>Vocabulary: number words eleven-nineteen</td>
</tr>
<tr>
<td>1. Count to 100 by ones and by tens. (0-25 by ones only)</td>
<td>✓ Subject Area: Mathematics ✓ Grade Level: K ✓ Instructional Component Type Category: Activity Resources ✓ (Activities listed alphabetically; select specific activity for details) What's your Number? For the integers between 0 and 20, the students write a number after hearing the name of the number and create a set of that number of objects.</td>
<td>Tub manipulatives: Two color counters, cubes, counting bears, real world objects, number cards, dot card, number line, number stamps, number templates, puzzles, ten frames, abacus, dominos, number spinners, number cubes, coins</td>
<td>Literature: Just Enough Carrots; How Many How Many How Many; Is There Room on the Bus; One Duck Another Duck; Five Silly Fisherman; Ten Black Dots; The Crayon Counting Book; Mouse Count; Count: Count and See; Count With Maisy; Let's Count it Out Jesse Bear; Curious George Counts; City by Numbers; One Mouse, Twenty Mice</td>
</tr>
<tr>
<td>2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). (0-10)</td>
<td>How Do I Write the Number? Students are asked to count representations of objects and write the corresponding numeral. Counting Beans The teacher says a whole number less than 21 and asks the student to write the stated number in a circle on a worksheet and then asks the student to place a matching quantity of beans or counters in the circle. This is done six times with different...</td>
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<tr>
<td>3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (0-10)</td>
<td>Numeral Recognition, Matching, and Writing This lesson allows students to match numbers with the corresponding number of objects and to write that number.</td>
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Text: Chapter 5

Text Alignment

Formative Assessments

Additional Resources / Activities

Lit. Connection Vocabulary / Reading

Vocabulary: number words eleven-nineteen

Literature: Just Enough Carrots; How Many How Many How Many; Is There Room on the Bus; One Duck Another Duck; Five Silly Fisherman; Ten Black Dots; The Crayon Counting Book; Mouse Count; Count: Count and See; Count With Maisy; Let's Count it Out Jesse Bear; Curious George Counts; City by Numbers; One Mouse, Twenty Mice

Example: Have 20 plastic cups with numbers 1 through 20 on them. Have each student fill one cup with number of beans written on the cup.

Tub manipulatives: Two color counters, cubes, counting bears, real world objects, number cards, dot card, number line, number stamps, number templates, puzzles, ten frames, abacus, dominos, number spinners, number cubes, coins

Grab and Go Kit 

Technology:
- CD's Harcourt: Counting Critters; Cross Town Number Line; Clock-a-Doodle-Doo; Harrison's Comparisons; Lulu's Lunch Counter; Block Busters
- Jack Hartman - Math All Around Me: This Old Man, Body Math, Animal Fingers, Chicken Count

Online resources:
- [http://illuminations.nctm.org/](http://illuminations.nctm.org/)
- [http://www.floridastandards.org](http://www.floridastandards.org) click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on any of the listed lessons and activities
- [https://www.k6.thinkcentral.com](https://www.k6.thinkcentral.com)

AIMS Activities:
- Valentine Candy Count; Five Little Elves; M&M Sort

Math Their Way:
- Numeral Dice Toss, How Many Buttons, Posters for Numbers
**K.CC—Counting and Cardinality (11-20)**

**Essential Questions**
- How can you show 11-20 with objects?
- How can you create sets that have the same number, one more, or one fewer objects? (11-20)

**Common Core Standards for Mathematical Practice**
- 2, 5, and 6 (see pages 6-8)

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<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a></td>
<td>Example: Students will compare sets by ordering numbers, by using concrete objects, and by using appropriate language such as none, more than, fewer than, same number of, and one more than.</td>
<td>Vocabulary: See above</td>
</tr>
<tr>
<td>4. Understand the relationship between numbers and quantities: connect counting to cardinality. (11-20) a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger. 5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects. (11-20)</td>
<td></td>
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</tr>
<tr>
<td>Compare numbers (11-20). MACC.K.CC.3.6-7</td>
<td></td>
<td>Tub Manipulatives: Color tiles, cubes, counting bears, two color counters, buttons, beans dominos, ten frames, number lines, hundred charts, work mats/set rings, coins, balance scales, stamps, number cubes, spinners, bean bags, graphing mats, playing cards, number balance</td>
<td></td>
</tr>
<tr>
<td>6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (11-20) 7. Compare two numbers between 1 and 10 presented as written numerals.</td>
<td></td>
<td>Technology: CD’s Harcourt: Country Countdown, White Water Graphing, Harrison’s Comparisons, Counting Critters; Cross Town Number Line</td>
<td></td>
</tr>
<tr>
<td>Text: Chapter 5 and Chapter 6</td>
<td></td>
<td>Online Resources:</td>
<td></td>
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<td></td>
<td></td>
<td>➢ <a href="https://www.k6.thinkcentral.com">https://www.k6.thinkcentral.com</a></td>
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<tr>
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<td></td>
<td>AIMS Activities: No Room in the Tin; The Valentine Candy Count; Solve It! Draw Out the Problem, Solve It! Super Safari Scrapbook, Solve It! Through the Window Numbers, Solve It! Bag a Bear, any graphing activities</td>
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<td>Math Their Way: My Turn, Your Turn, any graphing activities; Math Their Way Beyond the Book; Pop-Up Number Book, Our Beautiful Buttons</td>
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**Example:**
Students will compare sets by ordering numbers, by using concrete objects, and by using appropriate language such as none, more than, fewer than, same number of, and one more than.

**Number cards, dot cards**

**Tub Manipulatives:**
- Color tiles
- Cubes
- Counting bears
- Two color counters
- Buttons
- Beans
- Dominos
- Ten frames
- Number lines
- Hundred charts
- Work mats/set rings
- Coins
- Balance scales
- Stamps
- Number cubes
- Spinners
- Bean bags
- Graphing mats
- Playing cards
- Number balance

**Technology:**
- CD’s Harcourt: Country Countdown, White Water Graphing, Harrison’s Comparisons, Counting Critters; Cross Town Number Line

**Online Resources:**
- ➢ https://www.k6.thinkcentral.com

**AIMS Activities:**
- No Room in the Tin; The Valentine Candy Count; Solve It! Draw Out the Problem, Solve It! Super Safari Scrapbook, Solve It! Through the Window Numbers, Solve It! Bag a Bear, any graphing activities

**Math Their Way:**
- My Turn, Your Turn, any graphing activities; Math Their Way Beyond the Book; Pop-Up Number Book, Our Beautiful Buttons

**Literature:**
- Rosie’s Walk
- Anno’s Counting House
- Best Bug Parade
- Harriet’s Halloween Candy
- How Big Is a Foot?
- Those Calculating Crows
- The Doorbell Rang
- What Comes in 2’s, 3’s, & 4’s
- Stay in Line
- 26 Letters and 99 Cents
- The case of the Missing Birthday Party
- 100th Day Worries
### K.NBT.1—Number and Operations in Base Ten

**Essential Questions**
- How can you show numbers 11-19 as groups of ten and ones using objects, pictures, numbers, and words?

**Common Core Standards for Mathematical Practice**
- 2, 4-6 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark Text Alignment</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
</table>
| Work with numbers 11-19 to gain foundation for place value. MACC.K.NBT.1.1  
1. Understand the relationship between compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.  
Text: Chapter 5 and supplemental material for deeper understanding | No formative assessments on C-palms for this Common Core Standard at this time. | **Think Central: On Core** Lessons 67, 68 | Vocabulary: above below beside in front of behind next to top middle bottom in out left right |
Quarter 3

K.OA—Operations and Algebraic Thinking

Essential Questions
- How can you create and model addition and subtraction problems using pictures and or objects?
- How do the symbols +, -, and = show joining and separating?
- What are the different ways to make 0-5 using addition and subtraction?
- How can you solve addition and subtraction problems?

Common Core Standards for Mathematical Practice
- 2, 5, and 6 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark Text Alignment</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. MACC.K.OA.1-1-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Represent addition and subtraction with objects, fingers, mental images, drawings; sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. (0-5)</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td>Example: Students will use pictures and manipulatives to solve addition and subtraction problems.</td>
<td>Vocabulary: in all join and plus addition are left separate take away minus subtract add set</td>
</tr>
<tr>
<td>2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. (0-5)</td>
<td></td>
<td>Tub manipulatives: Cubes, two-color counters, buttons, beans, color tiles, counting bears, real-world objects work mats, coins, dominos, number cubes, spinners, yarn, straw s</td>
<td></td>
</tr>
<tr>
<td>3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). (0-5)</td>
<td></td>
<td>Finger plays: Five Little Ducks, Five Green and Speckled Frogs, Five Little Pumpkins, Five Little Monkeys, Roll Over Grab and Go Kit</td>
<td></td>
</tr>
<tr>
<td>4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. (0-5)</td>
<td></td>
<td>Fish in a Bowl: Students are verbally given a start unknown word problem with numbers less than ten to solve.</td>
<td></td>
</tr>
<tr>
<td>5. Fluently add and subtract within 5. (0-5)</td>
<td>More Fun with Numbers: Students solve increasingly challenging join and separate word problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text: Chapter 4 On Core Lessons 44, 47, 56, 57, 58</td>
<td>Fun with Numbers: Students solve a variety of simply join and separate word problems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fish in a Bowl: Students are verbally given a start unknown word problem with numbers less than ten to solve.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cupcake Problem: The student is given a separate start unknown word problem to solve with counters, and a number line is accessible. The teacher asks the student to explain his or her thinking.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Children in the Pool Problem: The teacher gives the student a join change unknown word problem to solve and asks the student to justify his or her answer. The teacher provides manipulatives for the student to use.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Resources / Activities

- http://www.k-6.thinkcentral.com

Vocabulary:
- in all
- join
- and
- plus
- addition
- are left
- separate
- take away
- minus
- subtract
- add
- set

Literature:
- Math Fables: Cats Add Up
- Benny’s Penny’s: The Mission of Addition: The Action of Subtraction
- Three Ants: Six Dinner Sid: Ten Fireflies
### K.NBT.1—Number and Operations in Base Ten

**Essential Questions**
- How can you show numbers 11-19 as groups of ten and ones using objects, pictures, numbers, and words?

**Common Core Standards for Mathematical Practice**
- 2, 4-6 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark</th>
<th>Text Alignment</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work with numbers 11-19 to gain foundation for place value.</td>
<td>MACC.K.NBT.1</td>
<td>2. Understand the relationship between compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</td>
<td>(Go back to Quarter 1 and pick up the resources for chapters on Number.)</td>
<td></td>
</tr>
</tbody>
</table>

**Text:**
On Core Lessons 67, 68
K.G.2—Geometry

**Essential Questions**
- How can you identify and describe squares, circles, triangles, rectangles, and hexagons?
- How can you compare two dimensional shapes in different sizes and orientations?

**Common Core Standards for Mathematical Practice**
- 2, 4-6 (see pages 6-8)

| Cluster / Benchmark | Formative Assessments | Additional Resources / Activities | Lit. Connection / Vocabulary
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, sphere)</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td><strong>Example:</strong> Students will use manipulatives. Position descriptions will include relative positions of objects in space such as beside, inside, outside, next to, above, and below.</td>
<td><strong>Vocabulary:</strong> Sort, Group, Alike / not alike, Different, Belong / does not belong, Size, Kind, Top / middle / bottom, In / out, Above / below, Over / under, Left / right, Between / next to, Inside / outside, Circle, Rectangle, Shape, Square, Triangle, Big / small, Blue, Green, Orange, Position, Red, Yellow</td>
</tr>
</tbody>
</table>
| MACC.K.G.2.1-2 | ✓ Subject Area: Mathematics
✓ Grade Level: K
✓ Instructional Component Type Category: Activity Resources
✓ (Activities listed alphabetically; select specific activity for details) | **Tub manipulatives:** 2 color counters, attribute shapes, bears, patterns blocks, cubes, real world objects, sorting mats/hoops | **Literature:** A Pair of Socks; Caps for Sale; Exactly the Opposite; How Many Snails; Is it Red? Is it Yellow? Is it Blue?; Left and Right; More or Less a Mess; Jacobs Collection: The Button Box; A Collection for Kate; 100 Monsters in My School; Exactly the Opposite; Is it Rough? Is it Smooth? Is it Shiny?; Who is the Beast? |
| **Sorting Buttons** Students are given pictures of buttons to sort three times in different ways and asked to explain their thinking. | **Sorting containers:** clear cups, cupcake liners, baskets, yarn circles, finger frames, etc. | | |
| **Object Sort** Students are given a variety of objects to sort and area asked to explain their thinking. | **Coins** | | |
| **Shape Sort** Students are given shape cards or attribute blocks and asked to sort them twice in different ways and to explain their thinking. | **Finger plays:** I Caught a Fish, Mr. Left and Mr. Right | | |
| **Technology:** | | | |
| ✓ CD's
✓ Harcourt: Shapes Ahoy
✓ Ship Shapes | **Online resources:** | | |
| | [http://illuminations.nctm.org/](http://illuminations.nctm.org/) | | |
| | [www.floridastandards.org](http://www.floridastandards.org) click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on any of the listed lessons and activities | | |
| | [https://www.k6.thinkcentral.com](https://www.k6.thinkcentral.com) | | |
| **AIMS Activities:** | | | |
| Apples A Peel to Me; Grapes to Raisins; Don’t Leave Out of the Vegetables; Goody Goody Gumballs; You Drive Me Crackers; Going Nuts | | | |
| **Math Their Way:** | Math Their Way Beyond the Book; Farm or Zoo? | | |

Text: Chapter 7-8
### KG.2—Geometry

**Essential Questions**
- How can you compare two dimensional shapes in different sizes and orientations?
- How can you use simple shapes to create larger shapes?

**Common Core Standards for Mathematical Practice**
- 2, 4-6 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Text Alignment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyze, compare, create, and compose shapes.  MACC.K.G.2.4-6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/&quot;corners&quot;) and other attributes (e.g., having sides of equal length).</td>
<td></td>
<td>Example: Students will create new objects from a set of given shapes. Students will reproduce a model by selecting the shapes represented in the model. For example, students may choose to create a representation of a house using a square and a triangle.</td>
<td>Vocabulary: See MA.K.G.2.4</td>
</tr>
<tr>
<td>5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</td>
<td></td>
<td>Tub manipulatives: Assorted geometric shapes, pattern blocks, die cuts, blocks, cubes, K nex, attribute blocks, sand table, real world objects, geo boards, clay, tiles.</td>
<td>Literature: The Village of Round and Square Houses; Grandfather Tang’s Story</td>
</tr>
<tr>
<td>6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”</td>
<td></td>
<td>Technology: CD’s Harcourt: Shapes Ahoy- Ship Shapes</td>
<td>Online resources:</td>
</tr>
</tbody>
</table>
| | | | ➢ [http://illuminations.nctm.org/](http://illuminations.nctm.org/)
| | | | ➢ w w w .f loridastandards.org click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on: any of the listed lessons and activities
| | | | ➢ [https://w w w-k 6.thinkcentral.com](https://w w w-k 6.thinkcentral.com) |
| **Text:** Chapter 8 | | AIMS Activities: Flip It Game, Shape Town | |
Quarter 4

K.G.2—Geometry

Essential Questions
- How can you identify and describe cubes, cones, cylinders, and spheres?
- How can you identify shapes as either two dimensional or three dimensional?

Common Core Standards for Mathematical Practice
- 1-7 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark</th>
<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, sphere). MACC.K.G.2.2-3</td>
<td>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, sphere). MACC.K.G.2.2-3</td>
<td>MACC.K.G.2.2-3</td>
<td>Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, sphere). MACC.K.G.2.2-3</td>
</tr>
<tr>
<td>2. Correctly names shapes regardless of orientations or overall size (3-Dimensional)</td>
<td>2. Correctly names shapes regardless of orientations or overall size (3-Dimensional)</td>
<td>Recognizing Rectangles</td>
<td>Recognizing Rectangles</td>
</tr>
<tr>
<td>3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”)</td>
<td>3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”)</td>
<td>Name and Describe 2-D Shapes</td>
<td>Name and Describe 2-D Shapes</td>
</tr>
<tr>
<td>Text: Chapter 9, On Core Lesson 92</td>
<td>Text: Chapter 9, On Core Lesson 92</td>
<td>2-D Shape Sort</td>
<td>2-D Shape Sort</td>
</tr>
</tbody>
</table>

Example:
Descriptions of attributes of 2-Dimensional shapes include the number of sides and the number of vertices. Students will reproduce the shapes by drawing pictures. Teachers should restrict hexagons and trapezoids to regular hexagons and isosceles trapezoids. (i.e. the basic pattern block shapes)

Tub manipulatives:
Attribute blocks, pattern blocks, shape blocks, K'Nex, pipe cleaners, straws, toothpicks, Wikki sticks, sorting mats/hoops, shape bingo tangrams, dot paper, clay geo boards

Technology:
- CD's Harcourt: Shapes Ahoy! Ship Shapes, Sea Cave Sorting
- Jack Hartman: Math All Around Me: I'm a Circle; I'm a Square; Shake Your Shape

Online resources:
- http://illuminations.nctm.org/
- www.floridastandards.org click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 click down to Related Resources click on: any of the listed lessons and activities
- https://www.k-6.thinkcentral.com

Math Their Way:
Math Their Way Beyond the Book: Pop-Up Shape Book

Vocabulary:
triangle circle square rectangle hexagon trapezoid corner vertices curve equal sides vertex parallel sides rhombus

Literature:
Color Zoo; The Shape of Things; Sea Shapes; Grandfather Tang's Story; Bear in a Square; What is Round; The Greedy Triangle; The Shape of Things; The Tangram Magician; So Many Circles; So Many Squares; The Village of Round and Square Houses
K.G.2—Geometry

Essential Questions
- How can you compare three dimensional objects in different sizes and orientations?
- How can you use shapes to model objects?

Common Core Standards for Mathematical Practice
- 1-7 (see pages 6-8)

<table>
<thead>
<tr>
<th>Cluster / Benchmark</th>
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<th>Lit. Connection Vocabulary / Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analyze, compare, create, and compose shapes. MACC.K.G.2.4-6</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed) ✓ Subject Area: Mathematics ✓ Grade Level: K ✓ Instructional Component Type Category: Activity Resources ✓ (Activities listed alphabetically; select specific activity for details)</td>
<td>Example: Students will create new objects from a set of given shapes. Students will reproduce a model by selecting the shapes represented in the model. For example, students may choose to create a representation of a house using a square and a triangle.</td>
<td>Vocabulary: See MA.K.G.2.4</td>
</tr>
<tr>
<td>4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/”corners”) and other attributes (e.g., having sides of equal length).</td>
<td></td>
<td></td>
<td>Literature: The Village of Round and Square Houses; Grandfather Tang’s Story</td>
</tr>
<tr>
<td>5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Text:
Chapter 8-9

Constructing Hexagons and Butterflies
Students are asked to construct hexagons in as many different ways as possible and a butterfly with pattern blocks.

Example:
Students will create new objects from a set of given shapes. Students will reproduce a model by selecting the shapes represented in the model. For example, students may choose to create a representation of a house using a square and a triangle.

Tub manipulatives:
Assorted geometric shapes, pattern blocks, die cuts, blocks, cubes, K'Nex, attribute blocks, sand table, real world objects, geo boards, clay, tiles

Technology:
CD’s Harcourt: Shapes Ahoy- Ship Shapes

Online resources:
- http://illuminations.nctm.org/
- www.floridastandards.org click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on: any of the listed lessons and activities https://www-k6.thinkcentral.com

AIMS Activities:
Flip It Game, Shape Town
K.MD.1—Measurement and Data

### Essential Questions
- How can you compare and order objects by length, height, and weight?

### Common Core Standards for Mathematical Practice
- 1-7 (see pages 6-8)

<table>
<thead>
<tr>
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<th>Formative Assessments</th>
<th>Additional Resources / Activities</th>
<th>Lit. Connection</th>
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</thead>
<tbody>
<tr>
<td>Describe and compare measurable attributes.</td>
<td><a href="http://www.floridastandards.org/resources/ResourceSearch.aspx">http://www.floridastandards.org/resources/ResourceSearch.aspx</a> (follow steps listed)</td>
<td>FLDOE Example: Direct means that one object is compared to another. Example: The length of two crayons is compared to by placing them next to each other and stating which one is longer or shorter. Indirect means that a measurement is provided to allow the comparison. Example: One student's height is marked on the wall. Another student's height is marked on the wall. The two marks are compared to determine their relative height.</td>
<td>Vocabulary: tall, short, tallest, shortest, heavy, light, heaviest, lightest, long, longest, longer, shorter, taller, heavier, lighter</td>
</tr>
</tbody>
</table>

**MACC.K.MD.1.1-2**
1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

### Text Alignment
- **Weight Line Up**
  Students are given three similar-sized bags of different weights and a balance. Students are asked to compare the weight of the bags and place the bags in order from lightest to heaviest.

- **Comparing Length**
  Students are given objects to place in order by length and asked to explain their thinking.

### Technology:
- CD's Harcourt- Shapes Ahoy- Made to Measure, Harrison's Comparisons

### Online Resources:
- [http://illuminations.nctm.org/](http://illuminations.nctm.org/)
- [http://www.floridastandards.org](http://www.floridastandards.org) click on Course Descriptions drop down Basic and Adult Education drop down Elementary drop down Mathematics drop down General Mathematics drop down Kindergarten click on MA.K.G.2.1 scroll down to Related Resources click on: any of the listed lessons and activities

### AIMS Activities:
- How Tall are You?, Huff and Puff; Inchworm Rulers; Eggstra Exploration; Feet Findings

### Literature:
- Just a Little Bit; The Long and Short of It; How Big is Big?; Inch By Inch; Measuring Penny; How Big is A Foot; The Biggest Fish; Twice My Size; The Littlest Dinosaur; Can I Go?; Is it Larger? Is it Smaller?; Who Sank the Boat?
### On Core Mathematics Supplemental Lessons for CCSSM

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<th>Standard Text</th>
<th>Gap</th>
<th>On Core Lesson(s)</th>
<th>Go Math! Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACC.K.OA.1</td>
<td>Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.</td>
<td>Expressions</td>
<td>44, 47</td>
<td>4</td>
</tr>
<tr>
<td>MACC.K.OA.3</td>
<td>Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5=2+3 and 5=4+1).</td>
<td>Full</td>
<td>56, 57</td>
<td>4</td>
</tr>
<tr>
<td>MACC.K.OA.4</td>
<td>For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.</td>
<td>Full</td>
<td>59</td>
<td>4</td>
</tr>
<tr>
<td>MACC.K.NBT.1</td>
<td>Compose and decompose numbers from 11-19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18=10+8; understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</td>
<td>Full</td>
<td>67, 68</td>
<td>5</td>
</tr>
<tr>
<td>MACC.K.MD.3</td>
<td>Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.</td>
<td>Sort the categories by count</td>
<td>74, 75, 76</td>
<td>7</td>
</tr>
<tr>
<td>MACC.K.G.1</td>
<td>Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</td>
<td>Above and below</td>
<td>80</td>
<td>9</td>
</tr>
<tr>
<td>MACC.K.G.1</td>
<td>Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</td>
<td>In front of and behind</td>
<td>82</td>
<td>9</td>
</tr>
<tr>
<td>MACC.K.G.3</td>
<td>Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).</td>
<td>Full</td>
<td>92</td>
<td>9</td>
</tr>
<tr>
<td>MACC.K.CC.1</td>
<td>Count to 100 by ones and by tens.</td>
<td>Count by tens</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>MACC.K.MD.1</td>
<td>Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.</td>
<td>Describe several measurable attributes of a single object.</td>
<td>69</td>
<td>11</td>
</tr>
</tbody>
</table>
## On Core Mathematics Materials

<table>
<thead>
<tr>
<th>Standard Number</th>
<th>On Core Lesson</th>
<th>Go Math! Chapter</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACC.K.OA.1</td>
<td>44</td>
<td>4</td>
<td>Two-color counters</td>
</tr>
<tr>
<td>MACC.K.OA.1</td>
<td>47</td>
<td>4</td>
<td>Two-color counters</td>
</tr>
<tr>
<td>MACC.K.OA.3</td>
<td>56</td>
<td>4</td>
<td>Two-color counters, connecting cubes</td>
</tr>
<tr>
<td>MACC.K.OA.3</td>
<td>57</td>
<td>4</td>
<td>Two-color counters, connecting cubes</td>
</tr>
<tr>
<td>MACC.K.OA.4</td>
<td>58</td>
<td>4</td>
<td>Two-color counters, connecting cubes</td>
</tr>
<tr>
<td>MACC.K.NBT.1</td>
<td>67</td>
<td>5</td>
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