

Kindergarten Essential Understandings

Standards of Mathematical Practice emphasized through the year in grades K-5:

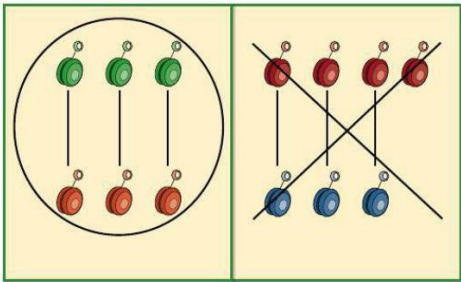
- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

Grade K – Marking Period 1

Students in Kindergarten will be introduced to counting as more than just a verbal skill. Over the course of the marking period, students count up to 10 objects in various arrangements, tell how many, and write the numeral. Topic 2 focuses on comparing numbers from 0 to 5. Students will compare groups of objects as well as the corresponding numbers which will allow for a deep understanding of the concepts greater than, less than, equal, and not equal. During the latter half of the marking period, kindergarten students will be formally introduced to geometric ideas by asking students to identify shapes as two dimensional or three dimensional. They will also learn to name squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres, regardless of orientation and size.

Examples include:

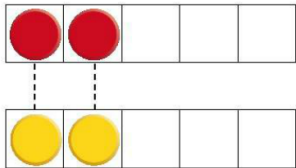
Groups of objects:



Draw a circle around the groups if they are equal in number, or mark an X on the groups if they are NOT equal in number.

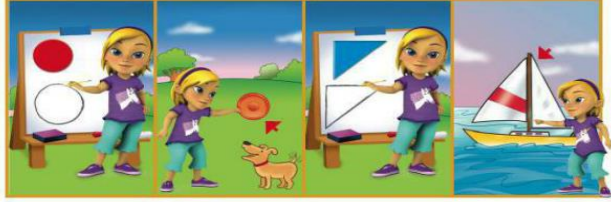
Equal Groups:

• **Five-Frames** Lesson 2-1 includes use of five-frames to determine whether or not two groups of counters are equal in number. Again, students use a matching strategy. This method of direct comparison is similar to how lengths of objects or bars in a bar graph can be compared. (K.CC.C.6)



Name Shapes:

- **Circles and Triangles** In Lesson 12-2, students identify circles (round flat shapes) and triangles (flat shapes with 3 sides and 3 vertices). (K.G.A.2)


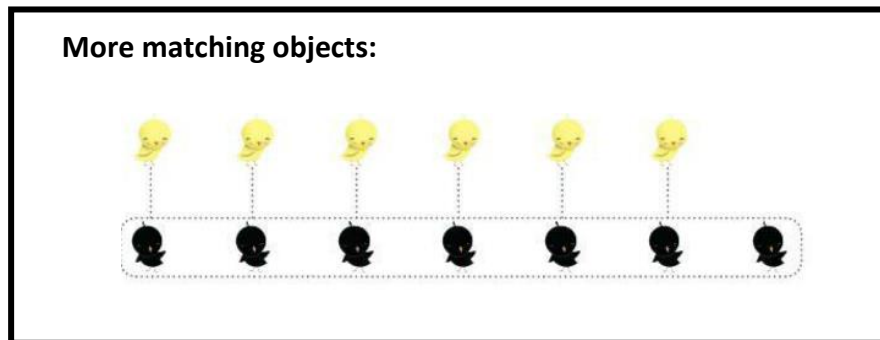


Mathematical Focus	Topic Goals
Number Concepts	
Geometry	

Grade K – Marking Period 2

The second marking period will begin with a focus on comparing numbers 0 to 10 using concepts of “greater than,” “less than,” “equal,” and “not equal” to compare groups of objects and numbers. Students will also be asked to classify up to 10 objects into two given categories, count the number of objects in each of those categories and then sort the categories by count. Students will work on continuing to count numbers from 11 to 20 and compose and decompose numbers 11 to 19 into one group of 10 ones and some further ones. This will build a foundation for understanding place value. It is important to note that the verbal sequence for the teen numbers follows a pattern by beginning with the ones place and then adding “teen” on the end. This can be confusing for some students that want to say “oneteen”, “twoteen” etc.

Examples include:



Hair

NO Hair

Classify.

There are 10 animals altogether.
6 animals have hair.
4 animals do not have hair.

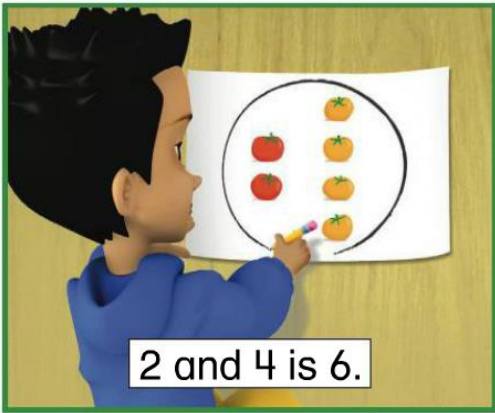
The image shows a classification activity. It is divided into two columns. The left column is labeled 'Hair' and contains six illustrations of animals: a horse, a dog, a cat, a mouse, a rabbit, and a squirrel. The right column is labeled 'NO Hair' and contains four illustrations: a frog, a lizard, a snake, and a goldfish. Below the illustrations is a cartoon boy with a speech bubble that says 'Classify.'. At the bottom of the page, there is a text box with the following text: 'There are 10 animals altogether. 6 animals have hair. 4 animals do not have hair.'

Mathematical Focus	Topic Goals
Number Concepts	
Measurement and Data	

Grade K – Marking Period 3

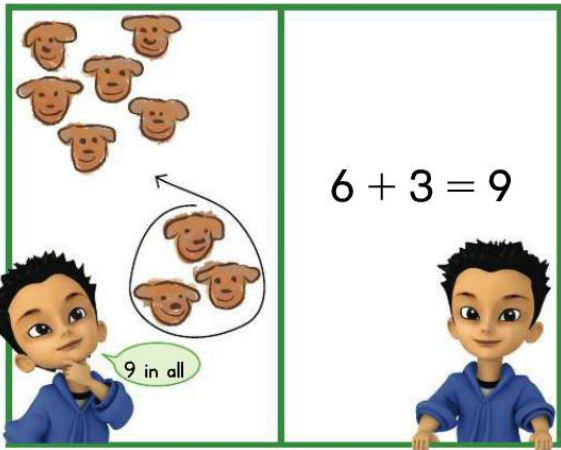
In the third marking period, students will focus on a deep understanding of addition as “put together” and “add to,” and subtraction as “take apart” and “take from.” Students learn how to represent and solve addition and subtraction word problems, decompose number through 10 and fluently add and subtract within 5.

Examples include:



2 and 4 is 6.

“Put Together”



6 + 3 = 9

9 in all

“Add To”

Grade K – Marking Period 4

In the last marking period, students will conclude their exploration of the counting sequence. Topic 11 of enVision math focuses on extending the number names and counting to 100. Students also deepen their understanding of geometric shapes including two and three dimensional shapes. Students analyze and compare attributes of shapes shown in different sizes and orientation. They build shapes using concrete materials and use them to draw other shapes. Lastly, students will be introduced to measurement by teaching students that objects can be directly compared by length, height, capacity, or weight.

Examples include:

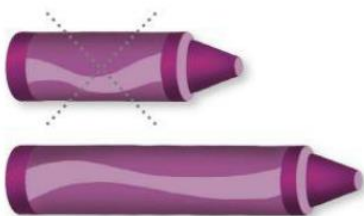
Comparing Shapes



Mark an X on the shapes that do NOT fit the clues, draw a circle around the shape that the clues describe, and then tell how the shapes you marked with an X are different than the shape you drew a circle around.

Clues: I am NOT round. I have less than 4 sides. What shape am I?

Compare objects based on length:



Mark an X on the shorter object.

Mathematical Focus	Topic Goals
Number Concepts	<p>Write numbers 0-20.</p> <p>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.</p> <p>Count forward starting with any number (other than 1).</p> <p>Understand that each successive number name refers to a quantity that is one larger.</p> <p>Count to 100 by ones and tens.</p>
Measurement and Data	<p>Describe measurable attributes of objects, such as length or weight. *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. *Describe measurable attributes of objects, such as length or weight.</p>