SUMMARY

Students classify objects and shapes into given categories. They count the number of objects in each category and answer questions about the classification and the count.

COMMON CORE STANDARD(S)

K.MD.A.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.

K.MD.B.3 Classify objects into given categories; count the number of objects in each category and sort categories by count.

DURATION

Two 45-minute classroom periods
Engage and Explore, Explain, Elaborate page 1—one 45-minute classroom period
Elaborate page 2, Evaluate—second 45-minute classroom period

MATERIALS

Objects of different sizes (small and large) and different colors
Shape blocks or cardboard cutouts of shapes
Resealable bags
Different amounts (1-9) of small objects such as paper clips, crayons, bottle caps, etc.
Markers that can mark on the bags
ENGAGE AND EXPLORE

Fill nine small resealable bags with different amounts (1-9) of small objects (paper clips, crayons, bottle caps, etc.) Divide the class into nine groups. Give each group of students one bag with objects in it. Their job is to work with their group to count the objects in the bag. Have the students write the number of objects in the bag when they finish counting.

Bring the class together and have each group talk about how they figured out how many objects are in their bag. They should describe the method they used to make sure they counted all of the objects.

Then have each group find a partner group. Tell them to look at their two bags and compare the number of objects in each bag. Tell them it is okay to take the objects out of the bag and line them up if they would like to do so. Since there is an odd number of groups, give a second bag of objects to the group with no partner group. Make the number of objects in that bag equal to the number of objects the group has in their bag. This ensures that when students share their comparisons, at least one group shares that the number of objects in each bag is equal.

Have the students share how the number of objects in their two bags compare. Encourage them to use phrases like greater than, less than, the same as, and equal to.

Tell students that we will work with shapes and objects in this lesson. You’ll identify groups of objects and shapes and count them, like they counted the objects in the bags.

Start by helping students remember the attributes of 2D shapes. Students should already be comfortable in naming shapes before completing this lesson.

Draw a variety of shapes on the board. Tell students you are going to color all of the triangles red. Point to each shape and ask if it is a triangle. Have students describe the attributes of a triangle. If the shape is a triangle, color the shape red. Once you are done coloring, ask students to tell you how many triangles were in the group of shapes. Write that number plus the word “triangles” on the board near the shapes. You can repeat for other shape types and other colors. Help students focus on identifying attributes and then counting all of the shapes that have been identified with those attributes.

EXPLAIN

WATCH THE GENERATION GENIUS CLASSIFY OBJECTS BY ATTRIBUTE (COLOR, SIZE & SHAPE) VIDEO AS A GROUP
Facilitate a conversation using the Discussion Questions.

ELABORATE

Direct students to use their new understanding to complete the practice problem worksheets. Page 1 contains bare mathematical problems to solidify understanding of the process. Page 2 contains application problems for students to apply the process to solve real-world problems.
Have students gather in groups of 2 or 4 to compare and discuss their answers to the problems. Allow students enough time to communicate with their peers about their process and their thinking. Encourage students to use correct mathematical language when discussing their process. Have each group choose two questions they want more information about, or they want to discuss as a class.

When groups are ready, take questions from students. Encourage groups to answer questions brought up by other groups.

Students can play the online Kahoot! quiz game located below the video. It provides downloadable scores at the end of the quiz game. Alternatively, you can use the paper quiz, or the exit ticket questions. All these resources are located below the video in the assessment section.