1.G All vs. Only some

Task

First pose the question:

*Here are four triangles. What do all of these triangles have in common? What makes them different from the figures that are not triangles? What is true for some but not all of these triangles?*

If students come up with a statement that is true about all of the triangles that they see but not true of all triangles in general, the teacher should ask students if they can imagine a triangle without that attribute. For example, if a student says, "All of the triangles are white on the inside," the teacher can ask, "Would it be possible for a
triangle to have a different color on the inside?" When the class comes up with an attribute that is truly shared by all triangles, then the class can complete the sentence frame: **All triangles __________, but only some triangles ______________**. When the students have written (or composed) their sentences based on the sentence frames, the class can write the definition of a triangle together:

*A triangle is a closed shape with three straight sides that meet at three corners.*

The teacher will repeat the process for rectangles and then squares. Each time, the class should complete the appropriate sentence frame once they have settled on a universal attribute. Then the teacher can help them compose a definition for the shape.

*A rectangle is a closed shape with four straight sides and four square corners.*
A square is a closed shape with four straight sides and four square corners. The four sides are the same length.

Once the class has working definitions in grade appropriate language for these shapes, students can identify the triangles, rectangles, and squares below. * Color all the triangles blue. * Color all the squares red. * Color all the rectangles green.