

Just in Time Quick Check
Standard of Learning (SOL) K.10b

Strand: Measurement and Geometry

Standard of Learning (SOL) K.10b

The student will compare the size (smaller, larger) and shape of plane figures (circle, triangle, square, and rectangle).

Grade Level Skills:

- Compare and group plane figures (circle, triangle, square, and rectangle) according to their relative sizes (smaller, larger).
- Compare and group plane figures (circle, triangle, square, and rectangle) according to their shapes.
- Distinguish between examples and nonexamples of identified plane figures (circle, triangle, square, and rectangle).

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [K.10 abc – Shape Detectives](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade K ([Word](#)) | ([PDF](#))
 - circle
 - square
 - triangle
 - rectangle

Supporting and Prerequisite SOL: [K.9](#), [Foundation Blocks for Early Learning: Standards for Four-Year Olds – 4b](#)*

*This links to the prerequisite standards found in Foundation Blocks for Preschool. Just in Time Quick Checks have not been created for Foundation Blocks.

SOL K.10b - Just in Time Quick Check

Materials Needed: Provide students with a collection of approximately fifteen shapes. Shapes should include different plane figures of various sizes (small and large). Circles, triangles (equilateral and not equilateral), squares, and rectangles must be a part of the collection.

1. Ask students to sort the collection of shapes in the following ways:
 - by shape
 - by size
2. Ask students to identify an example of each shape and explain. Ask students who correctly identify an example of the shape to identify a nonexample.
 - Triangles
 - Say, "Show me an example of a triangle."
 - If correct, then ask, "How do you know that shape is a triangle?"
 - If student is not able to identify a triangle, go to the next shape.
 - If student correctly identifies a triangle, ask, "Can you show me an example of a shape that is not a triangle?"
 - If correct, then ask, "How do you know that shape is not a triangle?"
 - Squares
 - Say, "Show me an example of a square."
 - If correct, then ask, "How do you know that shape is a square?"
 - If student is not able to identify a square, go to the next shape.
 - If student correctly identifies a square, ask, "Can you show me an example of a shape that is not a square?"
 - If correct, then ask, "How do you know that shape is not a square?"
 - Circles
 - Say, "Show me an example of a circle."
 - If correct, then ask, "How do you know that shape is a circle?"
 - If student is not able to identify a circle, go to the next shape.
 - If student correctly identifies a circle, ask, "Can you show me an example of a shape that is not a circle?"
 - If correct, then ask, "How do you know that shape is not a circle?"
 - Rectangles
 - Say, "Show me an example of a rectangle."
 - If correct, then ask, "How do you know that shape is a rectangle?"
 - If student is not able to identify a rectangle, go to the next shape.
 - If student correctly identifies a rectangle, ask, "Can you show me an example of a shape that is not a rectangle?"
 - If correct, then ask, "How do you know that shape is not a rectangle?"

SOL K.10b - Just in Time Quick Check Teacher Notes

Common Errors/Misconceptions and their Possible Indications

1. Ask students to sort the collection of shapes in the following ways:

- by shape
- by size

Some students may struggle to sort the shapes by shape and may mix up the squares and rectangles or include them in one group. These students would benefit from classroom activities that provide opportunities for the students to compare and describe the differences between and similarities among squares and rectangles. Sorting tasks can be great activities to include in small group instruction. In addition, there are numerous computer applications that allow students to practice sorting shapes. It would also be beneficial to have students go on "Shape Hunts" within their classroom, their school, or at home, to identify squares and rectangles in their world. Some students may also benefit from vocabulary heading cards (triangle, square, rectangle, and circle) to label each category as they sort.

Some students may struggle to sort the shapes by size and may need additional experiences that engage them in describing shapes that are small and shapes that are large. Attribute blocks can be a helpful resource for sorting shapes by size, shape, and/or thickness.

2. Ask students to identify an example of each shape and explain. Ask students who correctly identify an example of the shape to identify a nonexample.

- Triangles
 - Say, "Show me an example of a triangle."
 - If correct, then ask, "How do you know that shape is a triangle?"
 - If student is not able to identify a triangle, go to the next shape.
 - If student correctly identifies a triangle, ask, "Can you show me an example of a shape that is not a triangle?"
 - If correct, then ask, "How do you know that shape is not a triangle?"
- Squares
 - Say, "Show me an example of a square."
 - If correct, then ask, "How do you know that shape is a square?"
 - If student is not able to identify a square, go to the next shape.
 - If student correctly identifies a square, ask, "Can you show me an example of a shape that is not a square?"
 - If correct, then ask, "How do you know that shape is not a square?"
- Circles
 - Say, "Show me an example of a circle."
 - If correct, then ask, "How do you know that shape is a circle?"
 - If student is not able to identify a circle, go to the next shape.
 - If student correctly identifies a circle, ask, "Can you show me an example of a shape that is not a circle?"
 - If correct, then ask, "How do you know that shape is not a circle?"
- Rectangles

- Say, “Show me an example of a rectangle.”
- If correct, then ask, “How do you know that shape is a rectangle?”
- If student is not able to identify a rectangle, go to the next shape.
- If student correctly identifies a rectangle, ask, “Can you show me an example of a shape that is not a rectangle?”
- If correct, then ask, “How do you know that shape is not a rectangle?”

Some students may struggle when choosing nonexamples of some of the shapes, particularly squares and rectangles. These students will benefit from additional activities that focus on selecting a shape, describing its characteristics, and comparing it to other shapes with different characteristics. Throughout the day, teachers can hold up an object in the classroom and ask the students what shape it is and how they know? Then students can be asked to choose a shape that is not an example of that type of shape. Playing games such as “Guess My Shape” can engage students in describing and being able to distinguish between examples and nonexamples of plane figures.