

## Objective

Identify and use shapes to create pictures.

## Common Core State Standards

- **K.G.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*.
- **K.G.5** Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

## Geometry

# Geometric Pictures and Designs

Combining shapes to form pictures and designs can help children gain a better understanding of geometric relationships. In this lesson, children will use Attribute Blocks to create pictures and abstract designs. As they become familiar with the shapes and talk about their designs, they will begin to develop spatial reasoning.

**Try It!** Perform the Try It! activity on the next page.

## Talk About It

Discuss the Try It! activity.

- **Ask:** *What are some shapes you see in the picture?* Make sure that children are able to identify square, rectangle, triangle, and circle.
- **Ask:** *How many squares are there in the picture? How many triangles?* Repeat for circles and rectangles. Give children time to find all the shapes.
- **Ask:** *Can you think of some other pictures you could make with these shapes? Could you make a boat? Could you make an ice cream cone?* Allow children to experiment with the shapes to help them imagine what pictures could be created.

## Solve It

With children, reread the problem. Ask children to think about what shapes Ben might have used to make a picture of a house. Have them draw a house using any or all of the four shapes Ben's class used. Then have children color their houses. Discuss with children what shapes they used and how they chose the shapes.

## More Ideas

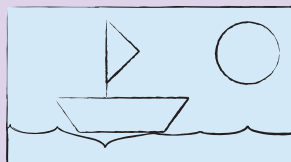
For other ways to teach about identifying and using shapes—

- Have children draw pictures of things that interest them. Then have them trade pictures with a partner. The partner should pick out any Attribute Blocks or Pattern Blocks shapes that he or she can find in the picture.
- Ask children to make pictures using Attribute Blocks. Ask them to share their pictures with other members of the class. Children should name the shapes they used.

## Formative Assessment

Have children try the following problem.

*Color the triangle in the picture red. Then color the circle in the picture yellow.*



## Try It!

15 minutes | Independent

Here is a problem about geometric pictures and designs.

*Mr. Jones's class is making Attribute Blocks pictures. The shapes they are using are squares, circles, rectangles, and triangles. Ben would like to make a picture of a house. What blocks could Ben use to make his picture?*

Introduce the problem. Then have children do the activity to solve the problem.

Distribute blocks and Shape Landscape (BLM 7) to each child.

### Materials

- Attribute Blocks (an assortment of same-size squares, circles, rectangles, and triangles per child)
- Shape Landscape (BLM 7; 1 per child)



**1.** Encourage children to explore the blocks. Review names of the block shapes with which children are familiar (circle, square, rectangle, and triangle). Ask children to look at the picture. Ask them to describe what things they see in the picture, such as a house, a tree, and so on.



**2.** Ask children to look for block shapes in the picture. When they find a shape, have them identify it by name. Encourage children to describe the block shapes and the shapes in the picture by number of sides and corners. Have children color the shapes they find.



**3.** Have volunteers name all of the shapes they have found and hold up the corresponding blocks.

### ! Look Out!

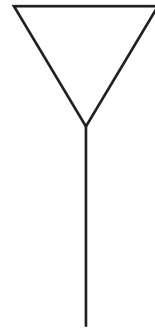
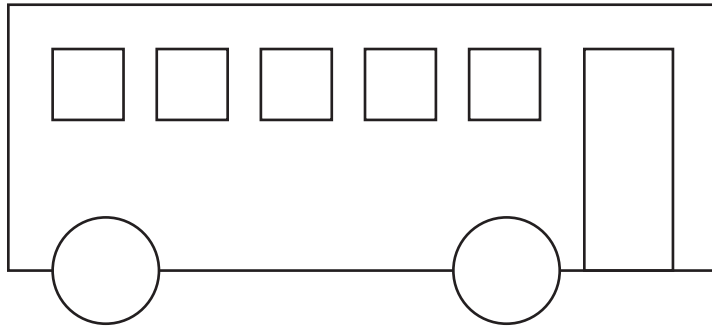
If children have trouble finding shapes in the picture, hold up individual blocks and have children review each shape's attributes. For example, remind children that a square has four sides that are all the same length. Then ask them if they can find a shape in the picture that has four sides that are all the same length.



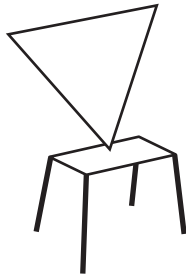
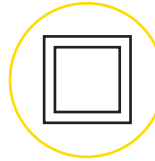
Check children's work.

**Answer Key**

1.



2.

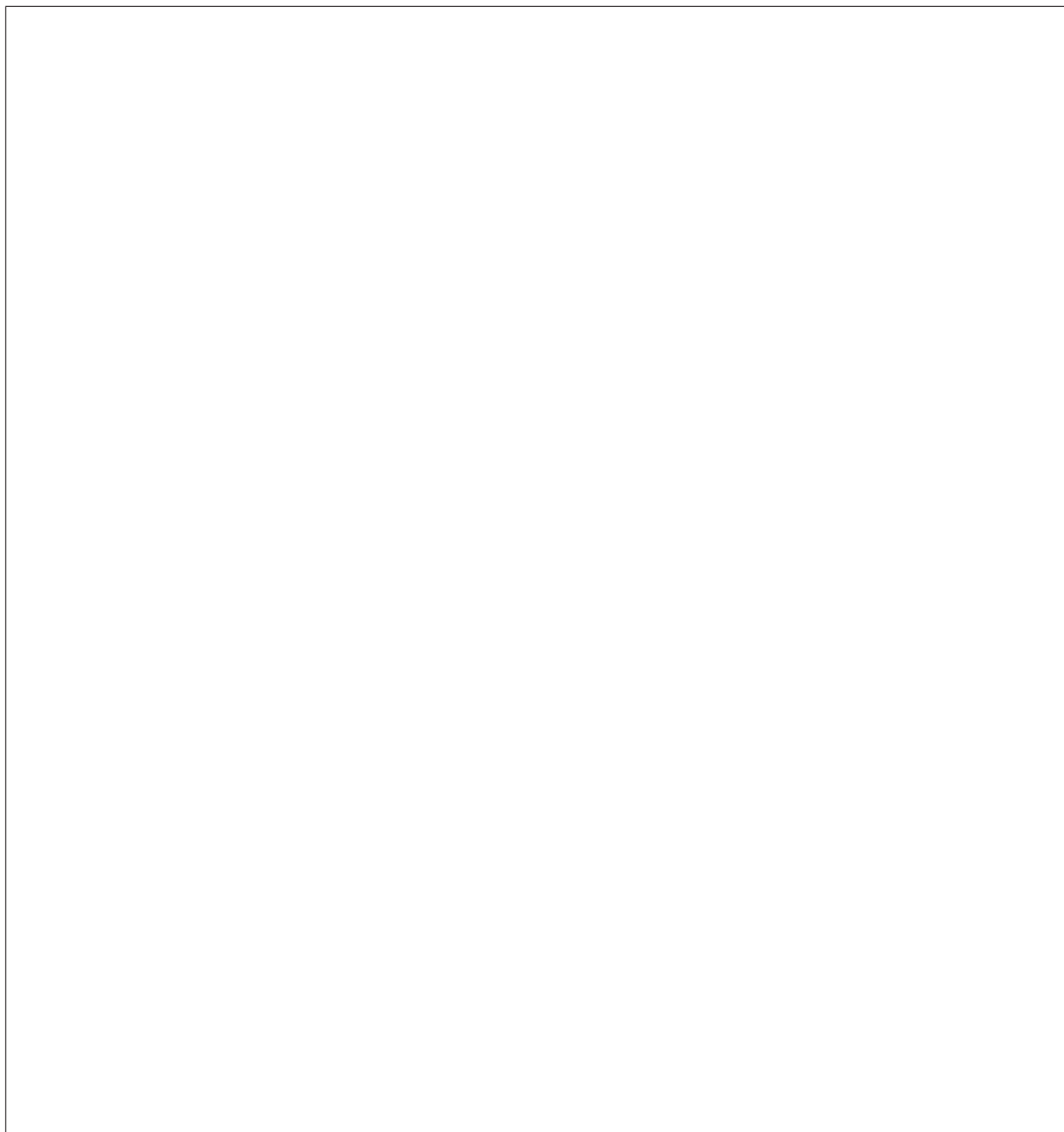
**Directions**

1. Color the triangle in the picture yellow. 2. Circle the square in the picture.



## Answer Key

Check children's work.



### Challenge

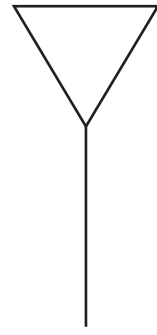
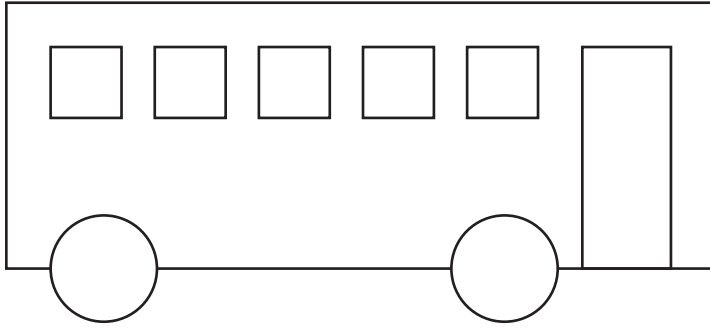
Use Attribute Blocks. Draw a picture that includes three or more different shapes. Color circles yellow. Color squares blue. Color triangles green. Color rectangles red.

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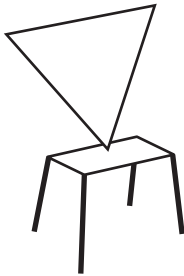


Name \_\_\_\_\_

1.



2.

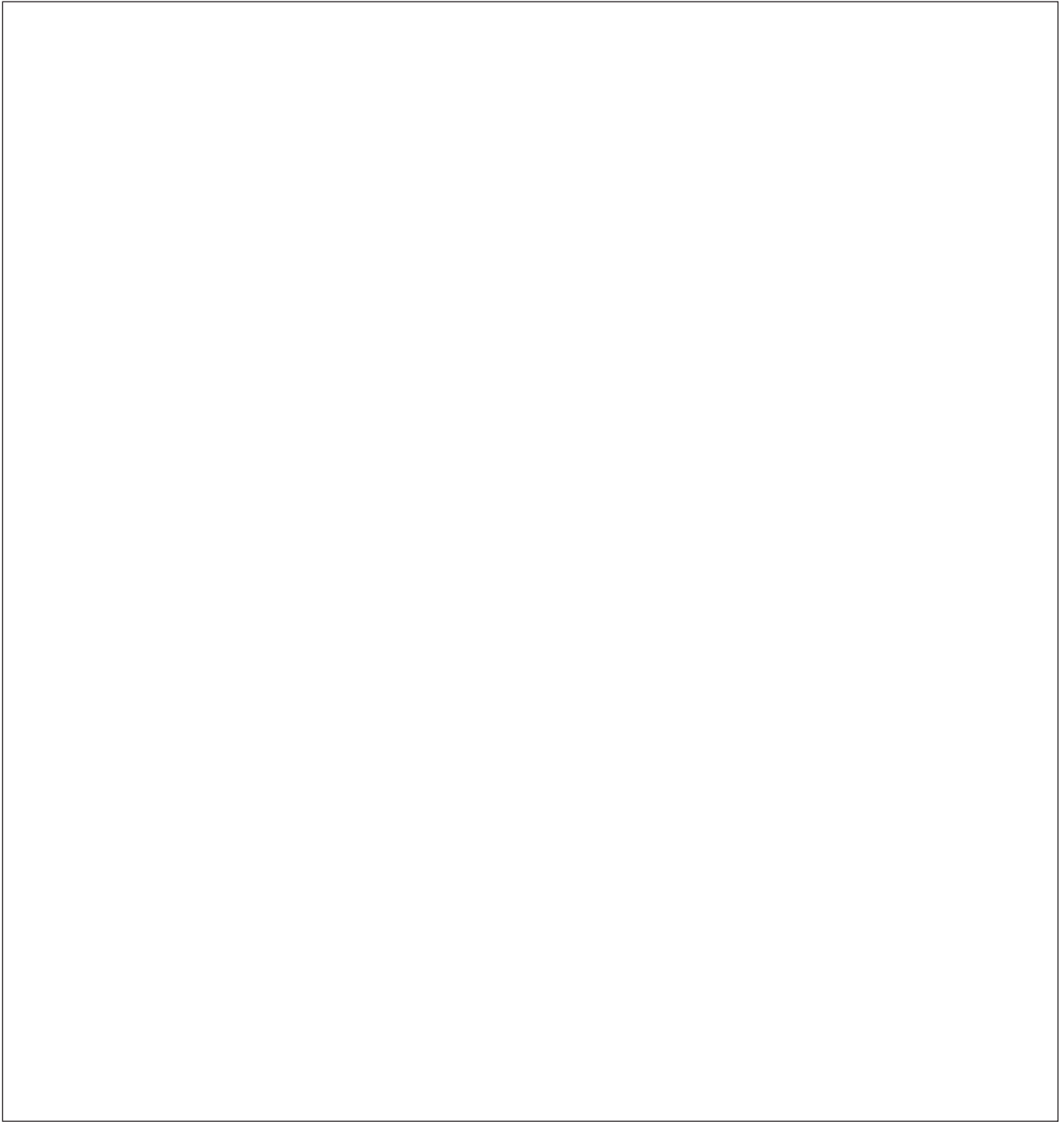


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**Directions**

1. Color the triangle in the picture yellow.    2. Circle the square in the picture.

Name \_\_\_\_\_



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### Challenge

Use Attribute Blocks. Draw a picture that includes three or more different shapes. Color circles yellow. Color squares blue. Color triangles green. Color rectangles red.

Name \_\_\_\_\_

