Shapes and Patterns

There are three options for this lesson, depending on class needs and time available:

1. Frame, Focus, and Reflection (view and discuss): students will watch a video about shapes in the real world, find shapes in the classroom, and identify shapes in art; students will draw “shape faces.”
2. Short hands-on activity: students will view a video about shapes and relative positions and explore right triangles.
3. Project (view and discuss): students will view a video about shapes and patterns and create a picture frame decorated with shape patterns.

Learning Targets

**Math**
- I can describe positions such as above, below, beside, in front of, behind, and next to.
- I can determine that size does not affect the name of the shape.
- I can determine that orientation does not affect the name of the shape.
- I can analyze how to put simple shapes together to compose a new or larger shape.
- I can identify shapes in the real world.
- I can recognize and identify squares, circles, triangles, rectangles, and hexagons.
- I can draw shapes.

**Arts and Humanities**
- I can identify and draw shapes.
- I can recognize relationships (above, behind, etc.)
- I can use scissors to cut out shapes and explore combining shapes in different ways.
- I can identify and arrange geometric shapes to create a pattern.

Teaching Approach

**Before the Lesson**
Students will need to be able to hold and use scissors.

**Frame, Focus, and Reflection**
Introduce or review the names of 2-D shapes—square, circle, rectangle, triangle, and square. Talk about how these shapes are called “flat” shapes or “plane” shapes. It would be helpful to review this concept throughout the lesson and each day. Show Shape House and have students spot these shapes in the classroom. Show the PowerPoint Let’s Look at Art and have students
identify shapes that they see in the paintings. Allow them to come up to the board and point out the shapes they see. Have students use the language “above, below, beside, in front of, behind, and next to” to describe the positions of these shapes.

Pass out drawing paper and direct students to draw faces using shapes. Model on the board, using a large circle for the face with smaller circles for the eyes, nose, and mouth as students follow along. Then, draw a large triangle for a face and smaller triangles for the eyes, nose, and mouth as students follow along. Finally, challenge students to draw a face using large and small squares. Have students identify facial features using positional words. For example: “Your eyes are above your mouth.” “Your ears are beside your eyes.” “Your eyes are above your nose.”

Short Activity
Show Shapes All Around Me.

Give each student a sheet of construction paper or lightweight colored computer paper, a right triangle template, and a crayon. Instruct students on how to hold down the template with one hand and trace around it with the other hand. It might be easier for them to do this working with a partner. After tracing, students will cut out the triangles with scissors. Have them look at the triangle shape and compare it to things in the classroom. Example: room corner, table tops, etc. Then, illustrate how to put two right triangles together makes a square. Give students time to experiment with combining their triangle with their neighbor’s triangle to make composite shapes.

Longer Project
Show Peg + Cat: Triangle, Pentagon, Triangle, Square. Review the names of all shapes, review positional words, and lead a scavenger hunt in the classroom.

Give students a bag of assorted shapes cut out of self-adhesive foam (should be cut in advance) and a tag board picture frame. Call out a shape and have students respond by holding up that shape (check to make sure). Then, have students stick that shape onto the frame. Call a second shape and so on, letting students create patterns from shapes until the frame is completely covered by shapes.

Provide positional instructions to create a pattern (such as “Stick the square above the triangle”).

Students will have a picture frame to take home. They could use it to frame the “shape faces” they drew the first day.
**Formative Assessment**

What are the indicators of student progress toward or achievement of each learning target?

**Math Assessment Problems**

- **Distinguished:** Students can identify all shapes and use positional words to tell where the shape is located.
- **Proficient:** Students can identify all shapes and use positional words to tell where most shapes are located.
- **Apprentice:** Students can identify some shapes and use only a few positional words to identify location of shapes.
- **Novice:** Student cannot identify all shapes and does not use positional correctly.

**Arts and Humanities**

- **Distinguished:** Student created a clear pattern of geometric shapes. All pieces are securely adhered.
- **Proficient:** Student created a clear pattern of geometric shapes. Most pieces are securely adhered.
- **Apprentice:** Student created a pattern of geometric shapes with a few errors. Most pieces are securely adhered.
- **Novice:** Student did not create a pattern.

**Program Review**

Where does this fit in? How should you document it?

This activity contributes to your school's overall efforts in art programming in several areas, depending on whether you implement just the Frame, Focus, and Reflection portion or you implement the entire project.

**Curriculum and Instruction: Aligned and Rigorous Curriculum**

a) To what extent does the school ensure that the arts curriculum encompasses creating, performing, and responding and is fully aligned with the Kentucky Core Academic Standards?

c) To what extent does the school ensure that the school's curriculum provides opportunities for integration as natural cross-curricular connections are made between the arts and other content areas?

d) To what extent does the school ensure that the arts curriculum includes the study of representative and exemplary works of dance, music, theater, and visual arts from a variety of artists, cultural traditions, and historical periods?
Math
CC.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.
CC.K.G.2
Correctly name shapes regardless of their orientations or overall size.
CC.K.G.3
Identify shapes as two-dimensional (“lying in a plane, “flat”) or three-dimensional (“solid”).
CC.K.G.4
Analyze and compare two and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
CC.K.G.5
Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
CC.K.G.6
Compose simple shapes to form larger shapes. For example, “can you join these two triangles with full sides touching to make a rectangle?”

Arts and Humanities
AH-P-SA-S-VA1
Students will begin to recognize and identify elements of art (line, shape, form, texture, color) and principles of design (emphasis, pattern, balance, contrast) using visual art terminology.
AH-P-SA-S-VA2
Students will use the elements of art and principles of design in creating artworks independently and with others.
AH-P-SA-S-VA3
Students will explore, describe, and compare elements of art (e.g., line, shape, form, texture, primary and secondary colors, color schemes) and principles of design (e.g., focal point, pattern, balance, contrast) in two- and three-dimensional artwork.