TEACHING BY DESIGN

FRANK LLOYD WRIGHT TRUST

CREATING WITH SHAPES

GRADE: 1-3
TIME: Two 50-minute sessions

One way to emphasize design concepts for early learners is to have them explore design through artmaking. A hands-on activity can provide a feeling of accomplishment, creativity, and substantive learning. This activity encourages young learners in all three areas as they practice identifying shapes in architecture and re-creating famous buildings with simple, geometric shapes.

INTEGRATED SUBJECTS: Math, Visual Arts, Social-Emotional Learning

MATERIALS | RESOURCES

Safety scissors
Glue sticks
Construction paper (various sizes & colors)
Images of the Robie House elevation and/or other buildings with strong geometric features

OBJECTIVES

1. Learn about geometric shapes and scale by cutting simple shapes from construction paper.
2. Identify geometric shapes in architecture.
3. Create likenesses of a Frank Lloyd Wright design using collage and geometric shapes.
4. Work in teams to reproduce notable architectural designs.

ESSENTIAL QUESTIONS

1. How is geometry reflected in architecture and design?
2. How can an entire work of art or architecture be produced from many smaller parts?
3. How does a team effort allow for greater success?

LESSON PROCEDURE

EXPLORE

Session One

- **As part of a math unit introducing shapes, students use construction paper and scissors to create an assortment of geometric shapes (for example: rectangles, squares, triangles, circles) of various sizes. Have the students cut the shapes from construction paper. Ask:** What do you notice about these shapes? How are they different? How are they similar? **Keep the shapes for later use in the lesson.**
- **Introduce the Robie House and Frank Lloyd Wright. Images can be found at** https://www.teachingbydesign.org/multimedia/**. Emphasize Wright's use of simple shapes.**
- **Have students work in teams to explore where they see geometric shapes similar to the ones they created. These shapes can be found in the classroom as well as on projected images of buildings such as the Robie House.**

ENGAGE

Session One

- **Using a printed image of the Robie House elevation, help students discover how to match the shapes they created with the geometric shapes that appear on the Robie House.**
- **Have students work in teams to overlay shapes on top of the Robie House image until the building is entirely covered.**
- (Tip: Students may need to trim or adjust the size of the geometric shapes in order to fit the scale of the image. This could be a way to introduce the concept of scale to the students.)

DESIGN

Session Two

- **Encourage students to alter the colors of the construction paper they will use for their Robie House-inspired artwork.** Will they use one color or a variety of colors? Will they create a pattern with color? What impact do their color choices have on the design?
- **Once each team develops their design, students can glue shapes onto the Robie House elevation. As they do so, ask:** What do you notice about the Robie House? Would you change the building design in any way?
- **If time allows, have students create their own exteriors for another building, real or imagined. Alternatively, have students repeat the exercise with the Robie House floorplan.**

CRITIQUE & INTERPRET

Session Two

- **Have students view the work of other teams in the classroom, identifying ways their peers succeeded at the project and how they interpreted the building in a creative way.**
- **Challenge students to identify how many different shapes were used in their design. Ask:** How could the design be produced from fewer parts? What impact would that have on the final product?