

## SENSATIONAL SYMMETRY

### ART AND MATH

#### GRADE LEVEL: K–12

#### BASED ON

Paul Theodore Frankl  
*“Skyscraper” Bookcases*, ca. 1920–30  
Gift of the Estate of Mrs. James M. Hutton II,  
1969.407–418

#### VOCABULARY

symmetry  
symmetrical balance  
asymmetrical balance

#### MATERIALS

8.5 x 11 in. paper, size may vary  
color construction paper (use contrasting colors)  
scissors and glue for each student

#### OBJECTIVES

- Students will understand how to create symmetrical designs by cutting folded paper.
- Students will demonstrate the ability to use contrasting colors that will enhance the line, shape, and space qualities of their work.

#### CONCEPT

- A study of symmetrical designs should start with the study of the Museum’s *“Skyscraper” Bookcases*. Students will then look at other applications where symmetrical shapes are the constant, and color, and line are variables.

#### PROCEDURE

- Teacher begins the lesson by showing examples of symmetrical designs from furniture, floor tile, cut glass, and art deco like the bookcases, including an image of the Museum’s *“Skyscraper” Bookcases*.
- Students are to create a variety of patterns using one and two lines of symmetry.
- Students must choose two complementary colors to use for their patterns.
- Shapes are traced and cut out of a folded piece of construction paper, then unfolded and glued to the complementary background.

#### QUESTIONS FOR DISCUSSION

- Balance is one way to create order and psychological calm. Choose one of the examples of symmetry and show me where you see balance.
- Symmetry is a form of balance and repetition. Repetition is sometimes monotonous. How can symmetry be made more interesting and engaging?
- After seeing several examples, ask the students, “Which is the most interesting and why?”

# CLASS EXPERIENCE

## **ASSESSMENT**

The student will be assessed according to criteria met.

- Does the design balance symmetrically?
- Has the student used complementary colors?
- Did the student present his work in an organized way? (book form, portfolio, matted)

## **NATIONAL STANDARDS: ART AND MATHEMATICS**

- Standard 3: Choosing and evaluating a range of subject matter, symbols, and ideas
- Standard 6: Making connections between visual arts and other disciplines