

# SKYLIGHT SKYBRIGHT

**GRADE:** 1-5

**TIME:** Two 50-minute sessions

Design is all around us; sometimes you simply have to look up! In this lesson, students will consider both the function and visual impact of skylights in architectural design, exploring how Frank Lloyd Wright used skylights to create warm, harmonious, interior spaces. Students will then consider the context of their classroom as they develop and construct their own skylight design.

**INTEGRATED SUBJECTS:** Math, Visual Arts

## OBJECTIVES

### MATERIALS | RESOURCES

Images of Frank Lloyd Wright's skylight designs  
Images of Frank Lloyd Wright-designed interiors with skylights  
Sketchbooks  
Pencils  
Colored pencils  
Tissue paper  
Black construction paper  
Rulers  
Glue  
Tape  
Scissors  
Monofilament

1. Learn how Frank Lloyd Wright used geometry to create unity in his designs.
2. Identify geometric shapes in examples of Wright-designed skylights and interiors.
3. Design and construct a prototype for a Wright-inspired skylight.

## ESSENTIAL QUESTIONS

1. What is a skylight and how does it impact a room?
2. How is visual interest created in architecture and design?

# LESSON PROCEDURE

## EXPLORE

### Session One

- **Ask students:** What is design and where do you usually see it? **Challenge students to identify any examples of design in the classroom and discuss, sharing that design is all around us. Note if any students identified any examples of design on or near the ceiling. If not, ask students to consider why they were unable to find examples of design on or near the ceiling.**
- **Introduce students to the work of Frank Lloyd Wright, who believed that every detail was integral to the whole design of a room or building. Show students examples of Frank Lloyd Wright interiors, asking them to identify how elements in the interiors are connected. Ask students:** What shapes do you see and how are they repeated throughout the room?

## ENGAGE

### Session One

- **Challenge students to sketch any shapes and colors they see in the classroom that are repeated throughout the room. Have students consider:** Are some shapes and colors repeated more often than others?
- **Introduce students to Frank Lloyd Wright's skylight designs, which include skylights in the Guggenheim Museum, Unity Temple, and reception hall of his Oak Park Home and Studio. Ask students:** What impact do the skylights have on the interior and how are they connected to the rest of the room? **Note how the skylights bring natural light into each interior space while also directing the eye upward. Ask students:** What shapes do you see in the skylight and how are they repeated throughout the room?

## DESIGN

### Session One

- **Challenge students to use their observations and sketches of their classroom to design a geometric skylight for the classroom that will harmonize with the room and create a visual impact. Encourage students to sketch a few ideas and pick one design to refine further.**
  - **Differentiation:** Challenge students to transform an existing electric fluorescent ceiling light into a skylight. Measure the light fixture and have students design to scale.

### Session Two

- **Have students continue working on their sketches of a skylight design for the classroom.**
- **Once sketches are complete, have students construct a prototype of their design. To do so, have students use scissors, glue, and long strips of black construction paper to construct the "caming" (the metal banding that holds individual panels of glass together) in their design. Then have students use tissue paper, rulers, scissors, and glue to measure, cut, and attach colored "glass" to the design. If possible, use monofilament to hang the design from the ceiling so that students can see how light shines through the design from above.**
  - **Differentiation:** Have students work collaboratively to arrange their individual designs into one unified work before hanging.

## CRITIQUE & INTERPRET

### Session Two

- **Create a gallery walk of student work in your classroom so students can showcase and share their work. Ask students:** What impact do the designs have on the room? How would our experience of the room change if the designs were moved to the classroom windows? Would you change the design in any way?