Lesson Plan: Finding Polygons in Cubist Art
Provided by the Art Institute of Chicago Department of Museum Education

Suggested Grade Level: 4
Estimated Time: One to two class periods

Introduction
Students explore geometric properties and relationships in a two-dimensional work of art. They first search for and identify polygons in a Cubist painting and then use polygons to create their own Cubist portrait of a classmate.

Lesson Objectives
• Identify different kinds of polygons
• Create a Cubist portrait using polygons

Key Terms:
• Cubism
• polygon

Instructional Materials
• Paper
• Pencil
• Colored pencils
• Ruler
Procedures

Discussion

• Introduce students to polygons and the following related terms:
  o vertex/vertices
  o congruent
  o triangle
  o equilateral triangle
  o isosceles triangle
  o right triangle
  o scalene triangle
  o parallelogram
  o rectangle
  o trapezoid
  o isosceles trapezoid
  o pentagon
  o hexagon
  o heptagon
  o octagon

• Examine Picasso’s Daniel-Henry Kahnweiler with students. Have students make a list of the recognizable objects and human features they can find. Ask them to think about what the details tell us about the man sitting for the portrait.

• Ask students to list all of the polygons in this painting. Discuss how Picasso illustrated different body parts with shapes. Ask:
  o How are these shapes used to create a sense of three-dimensional form and space?

Activity

Have students create a Cubist portrait of a classmate that incorporates each polygon seen in Picasso’s portrait. Encourage students to divide their classmate’s features any way they want. (For example, a cheek or chin can be several shapes.) Students might also want to walk around the "sitter" and see how his or her face appears from different points of view.

Encourage students to add a few of the most significant and recognizable physical features of their classmate (curly hair, freckles, a piece of jewelry, etc.).

Hang the finished portraits in the classroom and see if students can guess the model for each one.
Evaluation

Base students' evaluation on their ability to classify and compare polygons and use these shapes to create abstract portraits of individuals.

Glossary

abstract (adj)
not recognizable; lacking pictorial representation or narrative content but utilizing color, form, and texture for expressive or decorative purposes

Cubism/Cubist (n/adj)
the early-20th-century art movement led by Pablo Picasso (1881-1973) and Georges Braque (1882-1963) that used abstract, fragmented shapes to depict several views of the same subject simultaneously, emphasizing the basic geometry or structure of the subject; of or relating to Cubism

polygon (n)
in geometry, a union of segments connected end to end. The segments are called sides. Two sides meet at a vertex (pl., vertices). The number of sides of a polygon is equal to the number of vertices.

Illinois Learning Standards

Math: 9
Fine Arts: 26