

Making Polyhedra

Objective

Understanding how 2-D shapes can be put together to make a 3-D shape

This activity focuses on:

- a. characteristics of rectangular prisms and pyramids
- b. how faces come together at edges

Materials

masking tape

2-D shapes on cardstock

scissors

Directions

1. Show students a cereal box. Cut the box so that the faces of the box in six separate rectangles (the faces of the box).
2. Discuss the geometric shapes (rectangles) on the box.
3. Reassemble the box using masking tape to tape the edges. Place one small piece on each edge. Show how you can easily take it apart if you want to change.
4. Show the students the different polygons on the cardstock. They are to cut them apart.
5. Have them make rectangular prisms and pyramids from the polygons.
6. Note: Before the activity you may want to run about 8 pages (cardstock) of each polygon sheet. Have different groups of students cut out the shapes. Then these shapes are easily available for the activity.
7. Encourage students to do some planning before they actually tape the edges.
8. After students have made several shapes gather the students with their shapes.
9. Ask them how to sort their shapes.
10. Create a graph on the floor of their shapes and label the shapes.

Extension: Students can measure and design their own 3-D shapes.