

## GEOSHAPE GRAB BAG

**Objective:** Identify geometric solids by their attributes.

**Materials:** Ten small paper sacks, like lunch sacks  
Two sets of geometric solids  
Two blank transparencies

**Procedure:**

1. Place one set of geometric solids at one end of the table. Take the prisms, pyramids, sphere, cylinders, and cones of the second set and place one solid inside each of the paper bags. Shuffle the bags on the table in front of you. Explain that you will designate which sack the participants will be guessing the contents of. Tell them they can refer to their filled-in polyhedron chart, but to remember that the sphere, cylinders, and cones are also included in this activity.
2. The rules for this competitive activity are:
  - a. Each group of four at a table is a team.
  - b. The trainer will go around the room allowing the first member of each team to ask a question that can be answered with a "yes" or a "no". Then the second member of each team will get a turn, etc.
  - c. The question must have to do with the number of faces, vertices, or edges the solid in the bag has.
  - d. The individual whose turn it is to ask a question may make a guess as to which solid is in the bag after asking his or her question. No other group members can make a guess or help that person.
  - e. Each team has the possibility of making five points for a correct guess. However, a wrong guess by a member of the team brings the possible points for that team down a point. The trainer must keep track of this on the overhead. Number the groups and write a 5 under each group. If a member of a particular group makes an incorrect guess, mark through the 5 and write a 4. When a member of the group guesses correctly, the group gets the number of points they have left.

- f. Put the solid back in the bag, and leave it with the others as you shuffle the bags. You can even go back to the same solid later in the game if you want to. This avoids the possibility of the "process of elimination" toward the end of the game.
- g. With each shuffle of the bags, another solid being the focus of attention, all of the groups' possible points go back up to 5.
- h. Keep track of the score on a blank overhead transparency. The team with the most points when you run out of time for this activity wins a prize or applause.

Notes:

1. Sample questions the participants may ask are:
  - a. Does it have exactly five faces?
  - b. Does it have at least four vertices?
  - c. Does it have at least one circular face?
  - d. Are all of the faces polygons?
  - e. Does it have exactly six straight edges?
2. Participants will have to specify whether they are asking about straight edges, or curved edges, since all of the solids are being used.