



Pass the Bag of 3D Shapes — An activity for maths groups:

Instructions

This game provides children with practice in recognising and naming common 3D shapes.

It works well as an activity for maths groups when children are learning, or have learned, about 3D shapes.

It requires children to:

- name common 3D shapes: cube, sphere, cone, cylinder, and rectangular prism
- recognise the 3D shapes of everyday objects
- identify the 3D shape of everyday objects by touch and match them to representative outlines of the shapes

Preparation

- Print out and laminate each of the six game boards from the resource ***Pass the Bag of 3D Shapes: Game boards***
- Gather and place into an opaque bag at least 12 each of the 3D shapes used in the game:
 - spheres e.g. small bouncy balls, marbles, beads
 - cubes e.g. counting cubes, dice
 - rectangular prisms e.g. erasers, matchboxes
 - cylinders e.g. crayons, coins, lids, buttons
 - cones e.g. spiral shells, toy traffic cones, lids from some tubes

How to play

Children need one game board each.

They take turns to select, by touch and without looking, a shape from the bag to match a shape in outline on their game boards. The first to complete their board by matching nine objects to the nine 3D shapes on their board is the winner.

When play begins it is easy to select a matching shape. As the boards fill children need to identify what shapes are still required and choose, by touch and without looking, a matching shape. If they choose an object for which there is no available matching shape, they return the object to the bag and pass the bag to the next player, effectively missing their turn.

Teaching and discussion points during play

On their turns the children should:

- ❖ identify a shape required; for example, “I need a cube.”
- ❖ feel in the bag to select an object with the matching shape; for example, a dice
- ❖ place the selected object in the correct position on the game board

Questions to ask:

What shapes do you need to complete your game board?

What shape will you try for this time?

How will you know if the shape you are feeling is a sphere?

How will you know if you are feeling a cube and not a rectangular prism?

Note: As long as there is a shape available against which children can match an object taken from the bag they may play it. There is no penalty for not choosing the shape stated. However, as their boards fill, if children don't plan and choose wisely they will not fill their boards as quickly as others.

(Requiring the children to select the stated 3D shape would make the game more difficult and require the children to be more touch observant. Of course it could be played this way, but I would suggest only when children have played the game a few times before.)