

2.36 Introducing 3D shapes

Topic: Shapes

Subtopic: 3D shapes

Activity type/skill: Orientation

Literacy focus: Vocabulary

Objective

- Provide orientation to the subtopic.
- Make links to prior knowledge.
- Link to the mathematics curriculum.
- Introduce technical vocabulary.
- Present target vocabulary in context.

What you need

- Student worksheet (see next page)
- [Audio track 2.36](#)

What to do

1. Look at the first page of the student worksheet. Talk about the shapes to draw out students' existing knowledge of:
 - names of the shapes – explain that these are technical words that they need for maths
 - shapes in the classroom
 - shapes in the community.
2. Play track 2.36 (Track 16 for this topic). Have students listen, look at the pictures and read the descriptions.
3. Look at the second page of the student worksheet. Have students look at the pictures of common objects and write the name of the three-dimensional shape each object is like on the line underneath, for example, they write the word 'cone' under the picture of the ice cream.
4. Look at the third page of the student worksheet and used the numbered photographs to play I Spy. You start with a description of one picture, for example: 'I spy a picture. It has a cube. The cube has a small square on each side.' The first person to call out the number of the picture correctly then takes a turn. Encourage students to say two or three sentences about the shapes. If a person calls out the wrong number, they are out of the game. Continue until there is a winner and award a prize. A variation is to have the first person to call out correctly add another sentence about the picture before they take a turn.

Answers:

| | | |
|-------------------|------------------|----------|
| cone | sphere | pyramid |
| rectangular prism | cube | cylinder |
| | triangular prism | |

Extending the activity

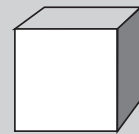
- Play I Spy in the classroom or outside where there is a range of objects of different shapes. Have students write lists of the objects they spied and the names of the shapes they look like.
- Read 'Finding Shapes in Buildings' by Clare Bowes, *Connected* 1, 2002.



Describing three-dimensional shapes

Three-dimensional shapes are solid shapes. You can measure how long they are, how wide they are and how high they are. They have the three dimensions: length, width and height. Three-dimensional shapes have surfaces. These surfaces can be flat or curved. Some three-dimensional shapes have only flat surfaces. A sphere has only a curved surface. Other three-dimensional shapes have a mixture of flat and curved surfaces. The flat surfaces of three-dimensional shapes are called faces.

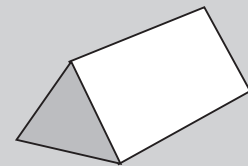
A **cube** has six faces.



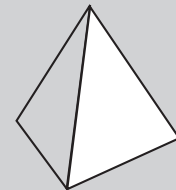
A **rectangular prism** also has six faces.



A **triangular prism** has five faces. Three of the faces are rectangles and two are triangles.



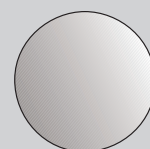
A **pyramid** has three or more faces. The tops of the triangles meet in a point above the base. The base of a pyramid can be a triangle or a square.



A **cone** is a kind of pyramid with one curved surface and a round base.

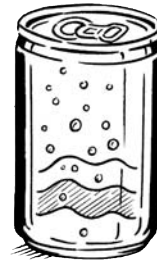
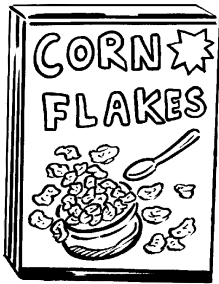


A **sphere** has a curved surface. It is round, like a ball.



A **cylinder** has two flat surfaces and a curved surface.





Play "I Spy"

Write the things you "spied" and their shapes

Activity thirty-six

