14. Space Station



Objectives

Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles], 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]

I can

- Recognise and name spheres, cubes and pyramids
- Describe spheres, cubes and pyramids
- Name and describe some 2-D and 3-D shapes

Resources

- A selection of 2-D and 3-D shapes
- A yellow, red and blue pencil per child

Introduction

- Encourage the children to study the picture carefully and talk to a partner about what shapes they can see.
- Ask the children to tell you what they already know about 2-D and 3-D shapes.

During the activity

1. Using the selection of shapes available, encourage the children to investigate 2-D shapes. Also encourage the use of accurate mathematical vocabulary associated with 2-D shapes, e.g. flat, curved, sides, corners, point, pointed, round, circle, square, rectangle, triangle.

Solutions

- **1.** 12 shapes should be yellow, **2.** 3 shapes should be red,
- **3.** 19 shapes should be blue, **4.** 6, **5.** squares, **6.** 4,
- 7. cylinder, 8. circles, 9. four triangles and one square,
- **10.** Answers will vary.

- **2.** Do the same with 3-D shapes, e.g. solid, face, edge, vertex, end, cube, pyramid, sphere.
- 3. Can they explain what is the same about the square and the rectangle and then what is different? Establish that a rectangle is a shape with four sides and four right angles. You may need to discuss what a right angle is. Ask the children to identify them in the classroom as well as on the shapes. A square is a special or regular rectangle. Model the mathematical vocabulary associated with triangles.
- **4.** Support the children during question 3, encouraging them to talk about the shapes. You could ask them to match the 3-D shapes in the picture to the selection of 3-D shapes available to create connections between the concrete items and the flat images presented in the picture.

If you have time...

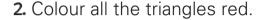
1. Ask the children to play a game where one child describes a 3-D or 2-D shape in the classroom that they listed in question 10. Others have to guess which shape they are describing.

Maths words

2-D shape, flat, 3-D shape, solid, square, rectangle, circle, triangle, right angles, cube, sphere, pyramid, face, edge, vertex

Space Station





3. Colour all the cubes, spheres and pyramids blue.



5. What are the shapes of the faces of a cube?

6. How many triangular shaped faces are there on each pyramid on the space station?

7. What is the name of the 3-D shape you haven't coloured?

8. What are the flat faces of this shape called?

9. Which 2-D shapes would you need to make a pyramid like the ones on the space station?

10. Find and list five 3-D and 2-D shapes around you.

