

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



1 Colour all the squares, rectangles and circles yellow.

2. Colour all the triangles red.


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



4. How many faces does a cube have?

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.