

Max's Shape Safari

Learning objective: To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.

Help Max the monkey solve his geometry puzzles by looking at the shapes around us. Read the information below and answer the questions carefully.

Max the monkey is exploring the forest. He notices that everything is made of shapes! He finds a wooden box that is a cuboid. It has 6 rectangular faces, 12 edges, and 8 vertices. Next, he picks up a shiny ball that is a sphere, which has no edges or vertices at all. Finally, he finds a tent in the campsite that is a triangular prism. Max uses these shapes to build a model of his treehouse. He remembers that a vertex is a corner where edges meet, and a face is a flat surface.

Word bank: vertex · edge · face · pyramid · sphere · cuboid · prism

1. Max has a cube and a cuboid. How many faces does a cube have? (1 mark)

2. Explain the difference between an edge and a vertex using your own words. (2 marks)

3. If Max buys a triangular prism for £3.50 and a sphere for £2.25, how much does he spend in total? (2 marks)

4. Can a sphere have any straight edges? Explain why or why not. (2 marks)

5. Name one object you see in your classroom that is shaped like a cylinder. (1 mark)

Draw: Draw a picture of a robot using only 2D shapes (circles, squares, rectangles, and triangles). Label the shapes you have used.



Extension challenge: Max wants to build a pyramid using straws and modelling clay balls. If a square-based pyramid has 5 vertices, how many modelling clay balls will he need to make the corners?