

Max's Geometry Garden

Learning objective: To identify and describe the properties of 2D and 3D shapes, including edges, vertices, and faces.

Read the information below about Max the monkey's garden shapes, then answer the questions to help Max finish his maths puzzle.

Max the monkey is busy tidying his garden. He has lots of blocks and tiles to sort. Max knows that 2D shapes are flat, like the square tiles on his patio. He also has 3D shapes, like his favourite wooden cube. Max remembers that a cube has 6 flat square faces and 8 vertices (corners). Some shapes have straight edges, while others, like a sphere, have curved surfaces. Max loves sorting these shapes into patterns to make his garden look beautiful.

Word bank: vertex · edge · face · curved · straight · polygon

1. Max has a shape with 3 straight sides and 3 vertices. What is the name of this shape? (1 mark)

2. Look at a cube. How many flat faces does it have? (1 mark)

3. A cylinder has two flat circular faces. Does it have any straight edges? Explain your answer. (2 marks)

4. Which is the odd one out: a square, a rectangle, or a sphere? Tell me why. (2 marks)

5. If Max has 5 triangles and each triangle has 3 vertices, how many vertices are there altogether? (2 marks)

Draw: Draw a robot in the garden using only 2D shapes. Label your shapes (e.g., triangle, circle, rectangle).



Extension challenge: Max wants to build a tower using 3D shapes. Can you list three different 3D shapes he could use and describe one property for each?