

3D shapes – faces, edges and corners

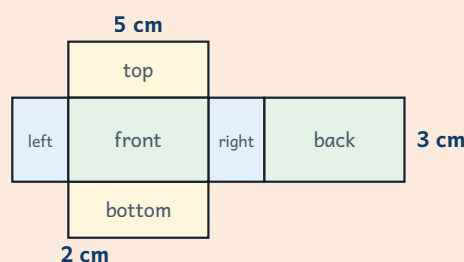
MODULE 7 · 2D AND 3D SHAPES AND ANGLES SHAPE & SPACE

HOW TO ANSWER TODAY

- **Name a 3D shape.** Count faces (flat surfaces), edges (where two faces meet), vertices (corners). Match to the shape.
5 faces, 9 edges, 6 vertices → triangular prism
- **Classify an angle.** Acute $< 90^\circ$ · right = 90° · obtuse $90^\circ - 180^\circ$ · straight = 180° · reflex $> 180^\circ$.
 $75^\circ \rightarrow$ acute · $120^\circ \rightarrow$ obtuse · $220^\circ \rightarrow$ reflex

TRY IT ON THE LINE

Use a real solid to count its faces, edges and corners, and record them in the table.



1. Count the flat faces of the solid.
2. Count the edges where two faces meet.
3. Count the corners (vertices) where edges meet.

PRACTICE

1. Cian finds a wooden block in the yard storage box near the hopscotch squares. He counts **6** faces, **12** edges and **8** vertices, and notices that all the faces are rectangles but not all of them are squares. What 3D shape is the block?

A 3D shape has these properties: 6 faces, 12 edges, 8 vertices; all faces are rectangles, not all squares. What shape is it?

2. Cian is building a model frame for a robotics project in 4th class. The frame he makes has **4** faces, **6** edges and **4** vertices, and every face is a triangle. What 3D shape has he built?

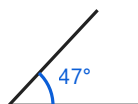
A 3D shape has these properties: 4 faces, 6 edges, 4 vertices; every face is a triangle. What shape is it?

CHALLENGE

1. In art class, Oisín is making a model of a tent for his scale drawing of the school yard. The tent has **5** faces, **8** edges and **5** vertices, with **1** square base and **4** triangular faces meeting at one apex. What 3D shape is the tent?

A 3D shape has these properties: 5 faces, 8 edges, 5 vertices; 1 square base and 4 triangular faces meeting at one apex. What shape is it?

2



Oisín and Cara are building a den in the school orchard. Two of the branches lean together to make an angle of **47°**. Is this angle acute, right, obtuse, straight or reflex?