

3D shapes – naming and sorting

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

WARM-UP

- 1 Cara is making props for the school play and picks up a smooth ball-shaped piece for the papier-mâché. It has **1** face, **0** edges and **0** vertices, with a single curved surface and no edges or vertices anywhere. What 3D shape is it?
A 3D shape has these properties: 1 face, 0 edges, 0 vertices; a single curved surface, no edges or vertices. What shape is it?
- 2 Ms Murphy brings a tall cardboard box into 4th class for the school play props. The pupils notice it has **6** faces, **12** edges and **8** vertices, and that all its faces are rectangles but not all squares. What 3D shape is the box?
A 3D shape has these properties: 6 faces, 12 edges, 8 vertices; all faces are rectangles, not all squares. What shape is it?

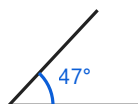
PRACTICE

- 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



Cian is helping mark out a triangular flowerbed in the school garden. One corner of the bed measures **47°**. Is this angle acute, right, obtuse, straight or reflex?