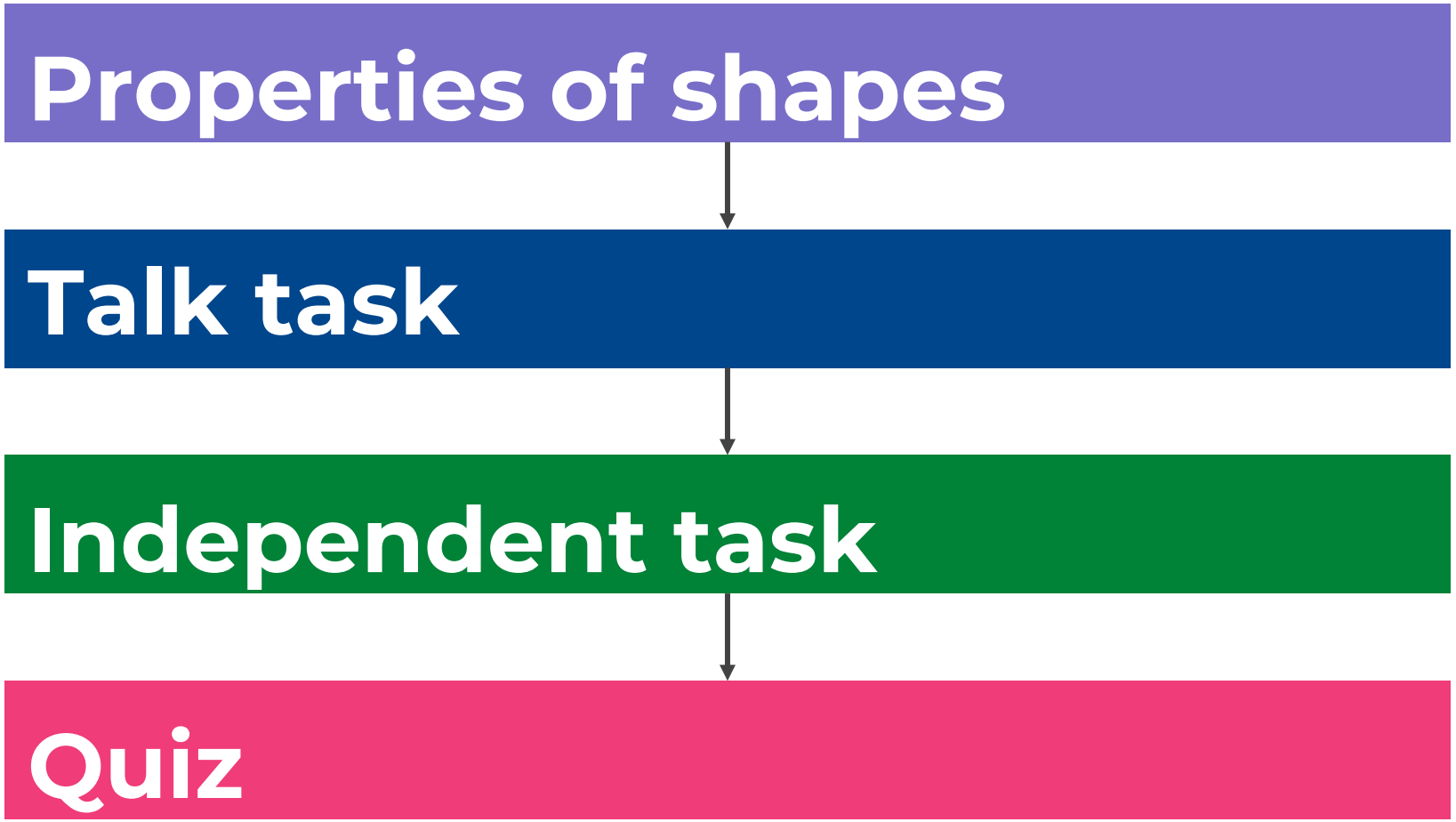
Mathematics

Identifying 2-D shapes on the surfaces of 3-D shapes.

Miss Mitchell

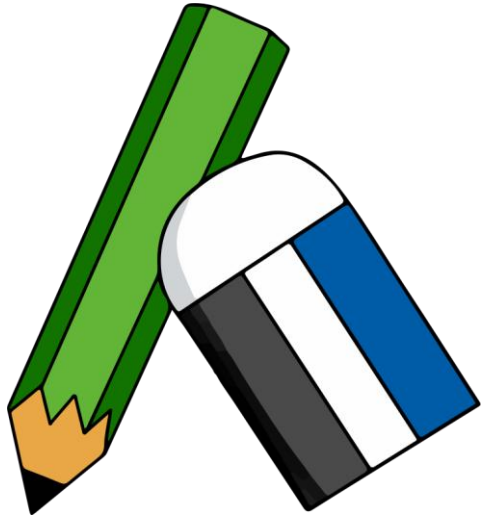
OAK NATIONAL ACADEMY

Lesson agenda



You will need...

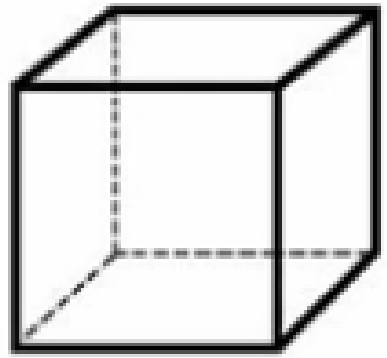
Pencil

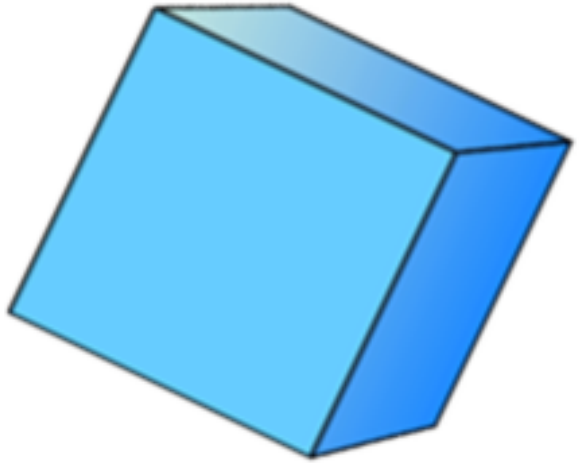


Paper

A cube has:

- 6 faces
- 12 edges
- 8 vertices

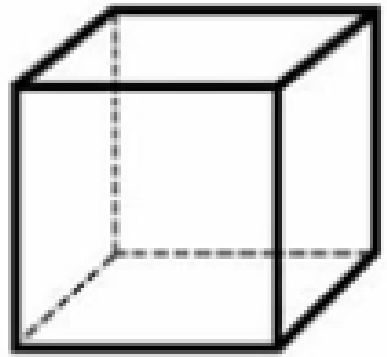


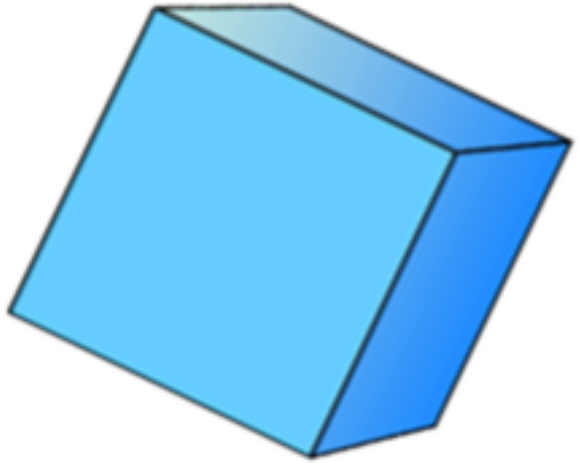


Now, can you describe the cube without using the terms ‘edges’, ‘vertices’ or ‘faces’?

A cube has:

- 6 faces
- 12 edges
- 8 vertices





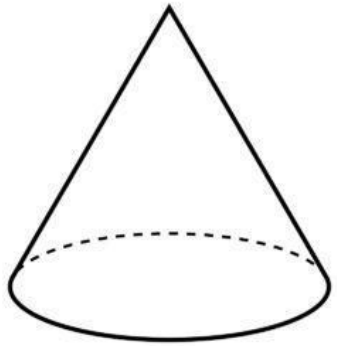
Now, can you describe the cube without using the terms ‘edges’, ‘vertices’ or ‘faces’?

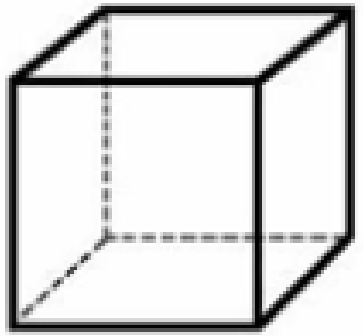
The cube has 6 squares.

Talk task

This shape has 6 square faces.

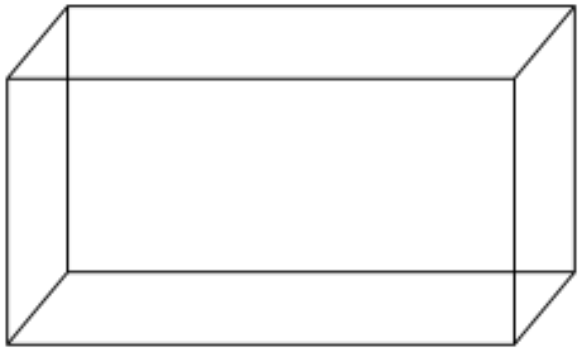
The base of this shape is a circle.





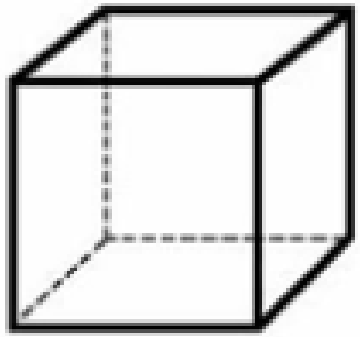
The base and top of this shape are circles.

This shape has 6 rectangular faces.



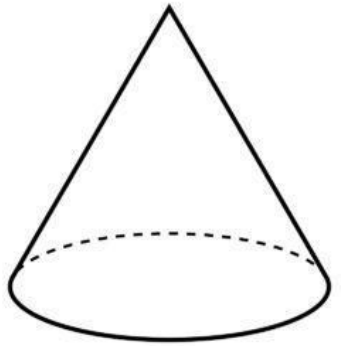
Say it out loud:

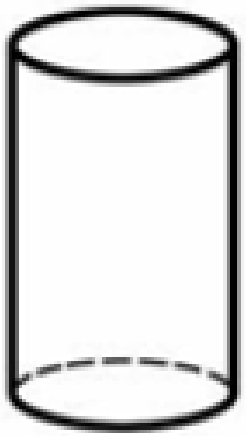
This card says _____ so it matches the _____.



This shape has 6 square faces.

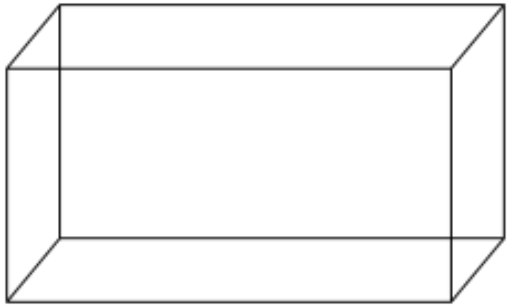
The base of this shape is a circle.

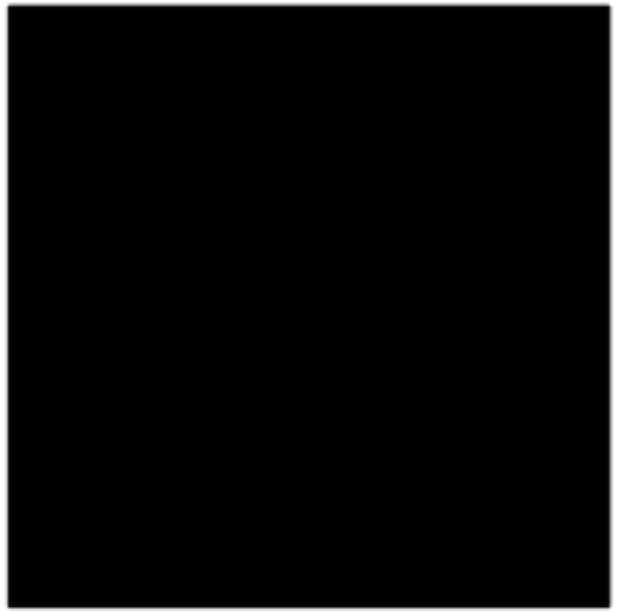




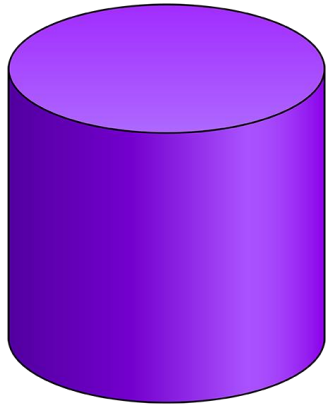
The base and top of this shape are circles.

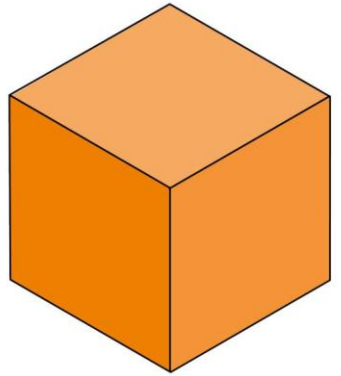
This shape has 6 rectangular faces.





This is the shadow of a 3-D shape.
What shape or shapes might it belong to? How do you know?
Choose from the options below:

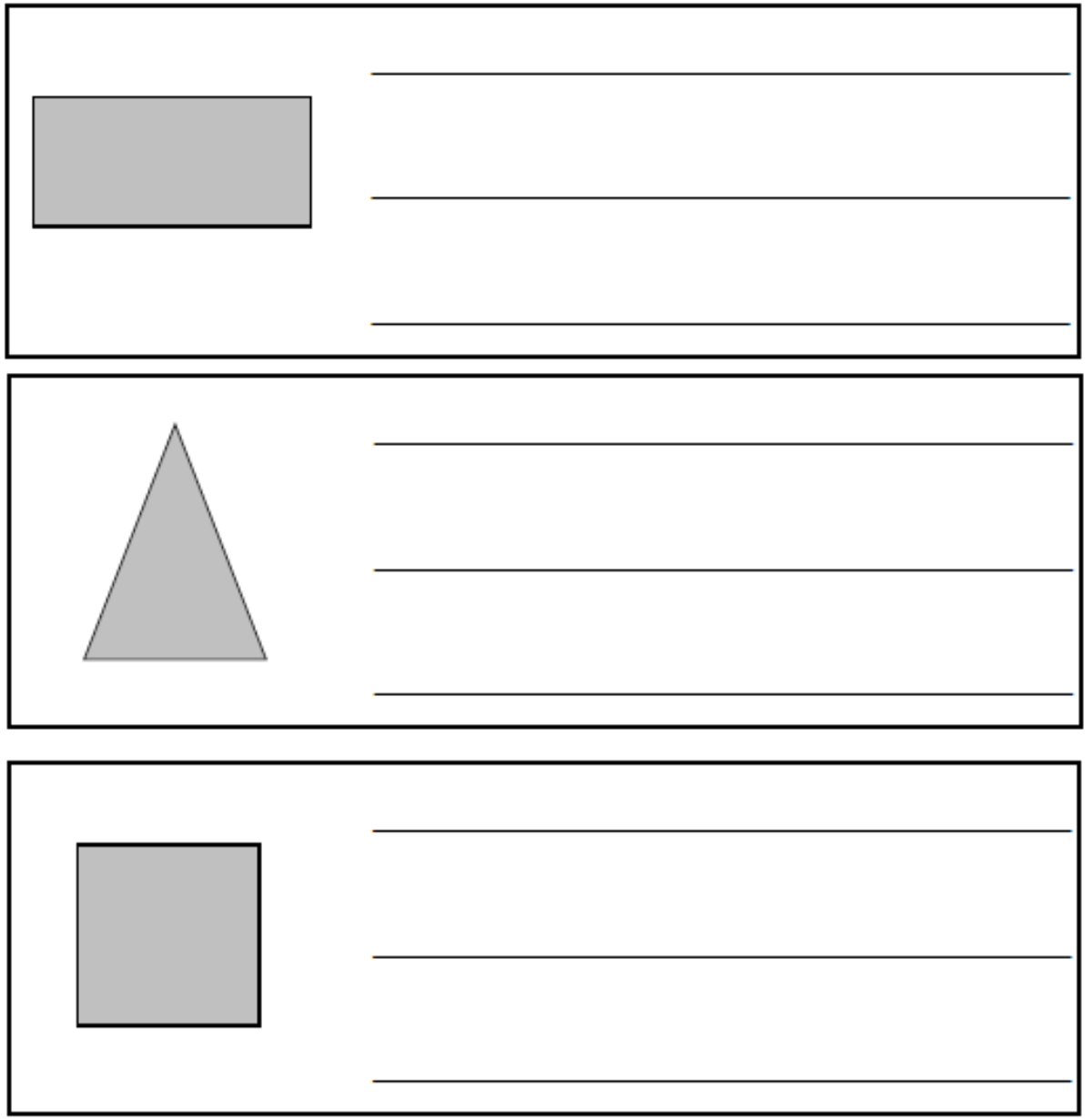




Independent task

What 3-D shape might these shadows belong to? Explain why.

Could any of the shadows belong to more than one shape? Which ones?



Pause to complete your task

Carry on once you’re finished

Answers

Questions	Answers
1	A cuboid because a cuboid has 6 rectangular faces
2	A pyramid, square-based pyramid or a triangular prism because it has triangular faces
3	A cube or a cuboid because a cube has 6 square faces and a cuboid has 2 square (rectangular) faces