

Varied Fluency

Step 11: Nets of 3D Shapes

National Curriculum Objectives:

Mathematics Year 6: (6G3b) [Recognise and build simple 3-D shapes, including making nets](#)

Mathematics Year 6: (6G2b) [Describe simple 3-D shapes](#)

Mathematics Year 6: (6G2a) [Compare and classify geometric shapes based on their properties and sizes](#)

Differentiation:

Developing Questions to support learning about nets of 3D shapes (simple cuboids and pyramids).

Expected Questions to support learning about nets of 3D shapes (prisms, pyramids, truncated pyramids, cones and cylinders).

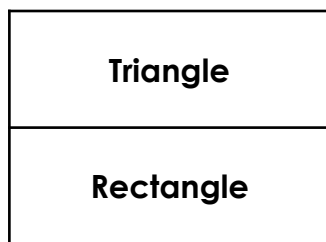
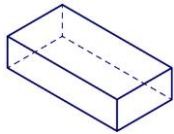
Greater Depth Questions to support learning about nets of 3D shapes (complex, compound shapes).

More [Year 6 Properties of Shapes](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

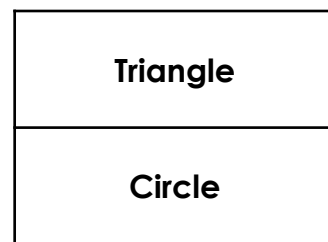
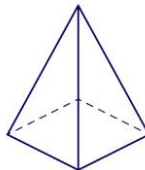
Nets of 3D Shapes

1a. Which of the 2D shapes is not a face of this cuboid?



VF

1b. Which of the 2D shapes is not a face of this square-based pyramid?



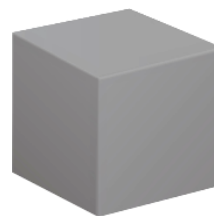
VF

2a. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



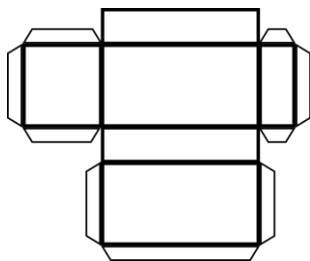
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2b. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



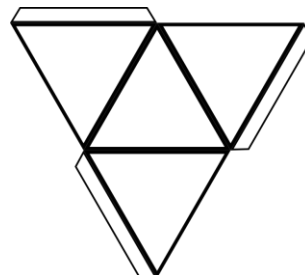
VF

3a. This net would make a cuboid; true or false?



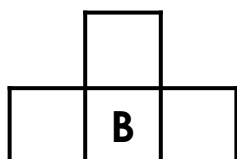
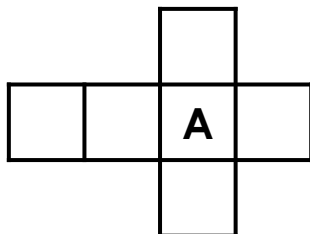
VF

3b. This net would make a triangular based pyramid; true or false?



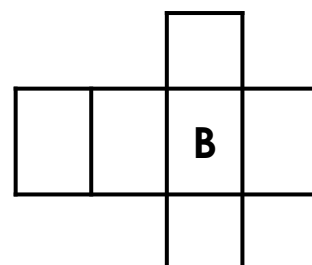
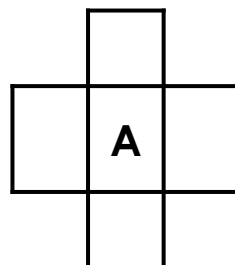
VF

4a. Which of these nets would make a cube? Which would not?



VF

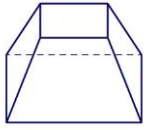
4b. Which of these nets would make a cuboid? Which would not?



VF

Nets of 3D Shapes

5a. Which of the 2D shapes is not a face of this truncated pyramid?



Trapezium

Square

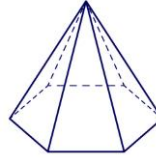
Parallelogram



VF

Nets of 3D Shapes

5b. Which of the 2D shapes is not a face of this hexagonal-based pyramid?



Scalene triangle

Isosceles triangle

Hexagon



VF

6a. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



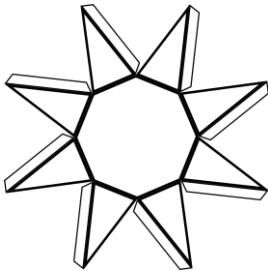
VF

6b. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



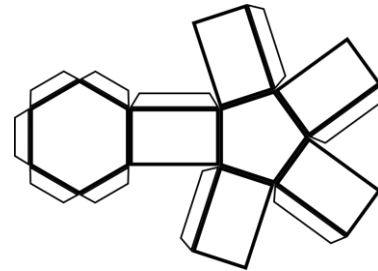
VF

7a. This net would make an octagonal-based pyramid; true or false?



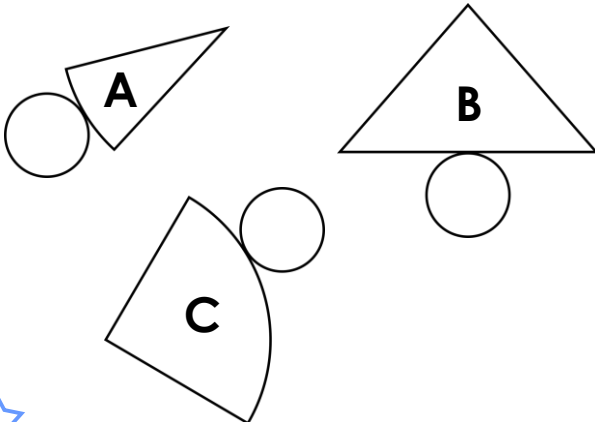
VF

7b. This net would make a pentagonal prism; true or false?



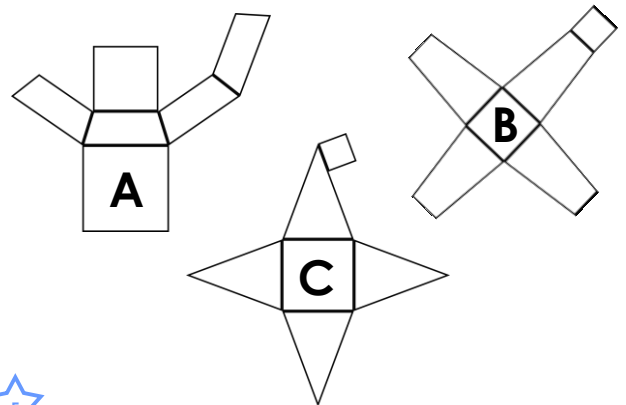
VF

8a. Which of these nets would make a cone? Which would not?



VF

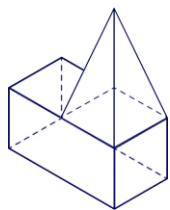
8b. Which of these nets would make a truncated pyramid? Which would not?



VF

Nets of 3D Shapes

9a. Which of the 2D shapes is not a face of this 3D shape?



Rectangle

Trapezium

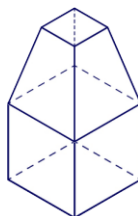
Triangle



VF

Nets of 3D Shapes

9b. Which of the 2D shapes is not a face of this 3D shape?



Square

Isosceles triangle

Trapezium



VF

10a. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



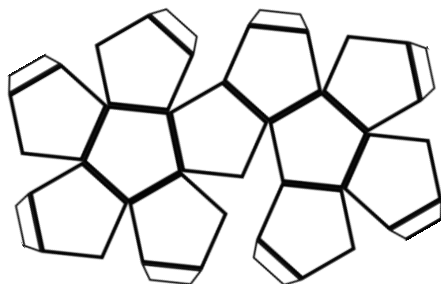
VF

10b. List which 2D shapes (and how many of each) you would need to use to make a net of this 3D shape.



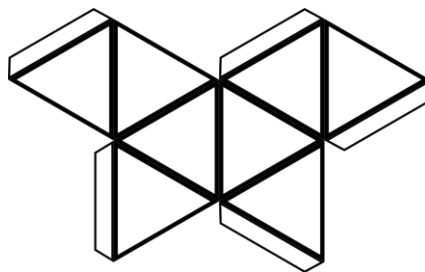
VF

11a. This net would make a dodecahedron; true or false?



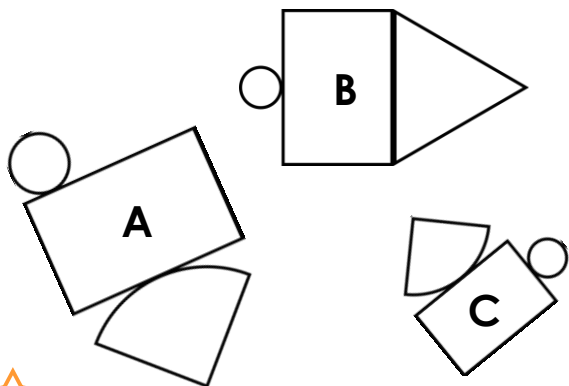
VF

11b. This net would make an octahedron; true or false?



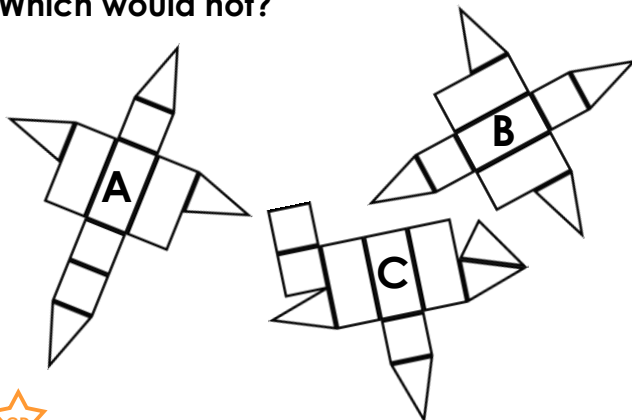
VF

12a. Which of these nets would make a cylinder with a cone on top? Which would not?



VF

12b. Which of these nets would make a cuboid with a square-based pyramid? Which would not?



VF

Varied Fluency Nets of 3D Shapes

Developing

- 1a. Triangle
- 2a. 3 squares or rectangles, 2 triangles
- 3a. False
- 4a. Net A would make a cube. Net B would not make a cube.

Expected

- 5a. Parallelogram
- 6a. 1 rectangle, 2 circles
- 7a. True
- 8a. Net C would make a cone. Nets A and B would not make a cone.

Greater Depth

- 9a. Trapezium
- 10a. 10 rectangles, 2 stars
- 11a. False
- 12a. Net A would make a cylinder with a cone on top. Nets B and C would not make a cylinder with a cone on top.

Varied Fluency Nets of 3D Shapes

Developing

- 1b. Circle
- 2b. 6 squares
- 3b. True
- 4b. Net B would make a cuboid. Net A would not make a cuboid.

Expected

- 5b. Scalene triangle
- 6b. 6 rectangles, 2 hexagons
- 7b. False
- 8b. Net B would make a truncated pyramid. Nets A and C would not make a truncated pyramid.

Greater Depth

- 9b. Isosceles triangle
- 10b. 6 rectangles, 6 triangles and 1 hexagon
- 11b. True
- 12b. Nets A and C would make a cuboid with a square-based pyramid on top. Net B would not make a cuboid with a square-based pyramid on top.