Homework/Extension
Step 11: Sort 3D Shapes

National Curriculum Objectives:

Mathematics Year 2: (2G1b) Compare and sort common 3-D shapes and everyday objects
Mathematics Year 2: (2G2b) Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Use the sorting hoops to complete the statements. Supports sorting 3D shapes, with reference to the number or faces, edges and vertices. All shapes are presented in the same orientation and size. Perspective lines visible on all shapes.
Expected Use the sorting hoops to complete the statements. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.
Greater Depth Use the sorting hoops to complete the statements. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. No perspective lines visible on shapes, with the use of real-life objects.

Questions 2, 5 and 8 (Varied Fluency)
Developing Circle the shape that cannot be sorted into the sorting hoops. Supports sorting 3D shapes, with reference to the number or faces, edges and vertices. All shapes are presented in the same orientation and size. Perspective lines visible on all shapes.
Expected Circle the shape that cannot be sorted into the Venn diagram. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes and some real-life objects.
Greater Depth Circle the shape that cannot be sorted into the Venn diagram. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. No perspective lines visible on shapes, with the use of real-life objects.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Identify 2 shapes that would go in the empty group. Supports sorting 3D shapes, with reference to the number or faces, edges and vertices. All shapes are presented in the same orientation and size. Perspective lines visible on all shapes.
Expected Identify 2 shapes that would go in the empty group. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. Perspective lines visible on some shapes.
Greater Depth Identify 2 shapes that would go in the empty group. Supports sorting 3D shapes, with reference to the number of faces, edges and vertices. All shapes presented in different orientations and sizes. No perspective lines visible on shapes, with the use of real-life objects.
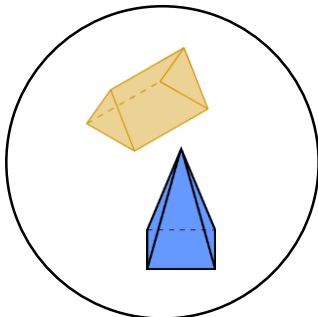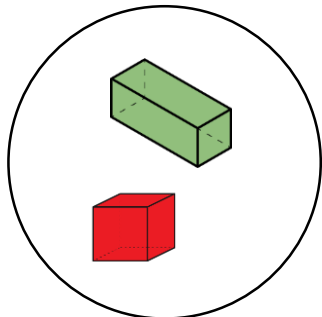
More Year 2 Properties of Shape resources.

Did you like this resource? Don't forget to review it on our website.

Sort 3D Shapes

1. Use the sorting hoops to complete the statements below.

Set A

Set B

The shapes in set A have ☐ edges.

The shapes in set B have ☐ faces.
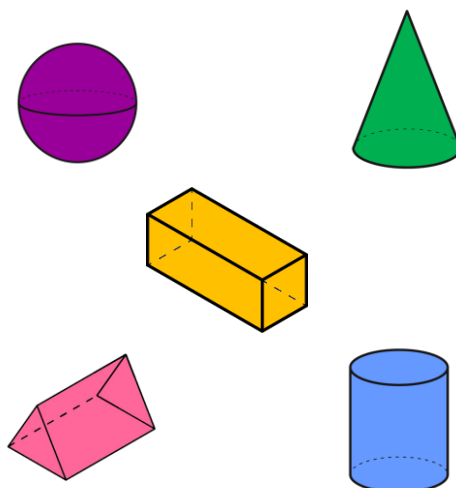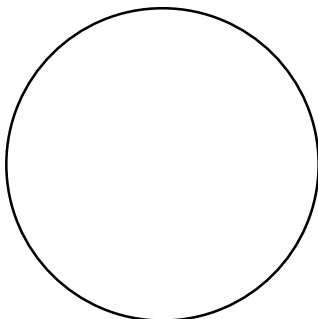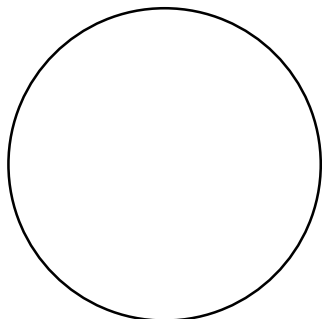
Name a shape that could not be sorted into either group.

⭐ D

2. Circle the shape that cannot be sorted into the sorting hoops.

No vertices

More than 4 edges

⭐ D

3. Pratik is sorting 3D shapes using sorting hoops.

Odd number of faces

More than 5 edges

I can think of 2 shapes that fit in the empty group.
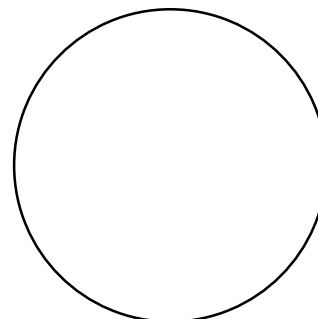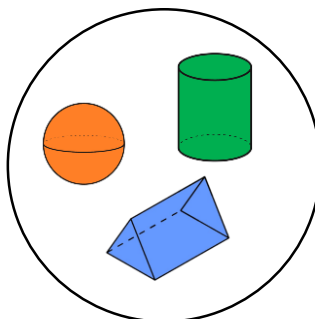
Name 2 shapes that Pratik could be thinking of.

⭐ D

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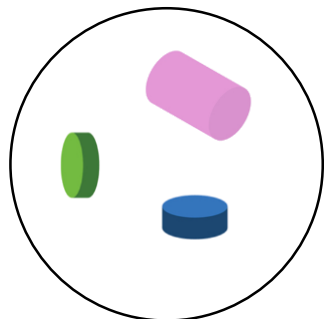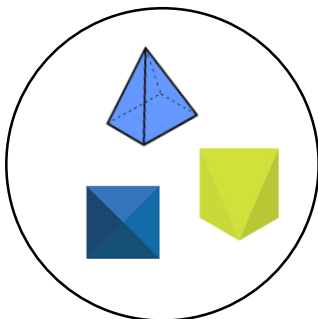**Homework/Extension – Sort 3D Shapes – Year 2 Developing**

Sort 3D Shapes

4. Use the sorting hoops to complete the statements below.

Set A

Set B

The shapes in set A have ☐ edges.

The shapes in set B have ☐ edges.

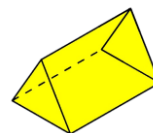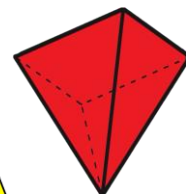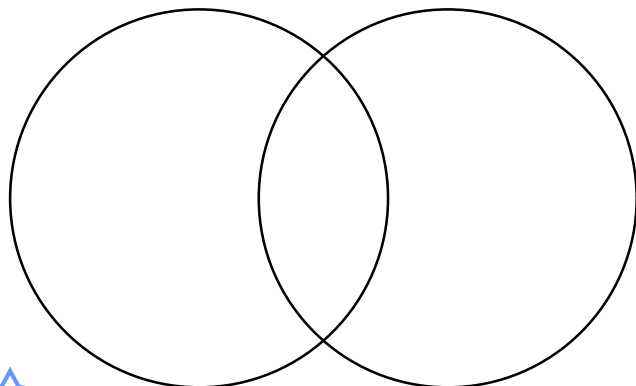**Name a shape that could not be sorted into either group.**

E

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5. Circle the shape that cannot be sorted into the Venn diagram.

More than 4 vertices
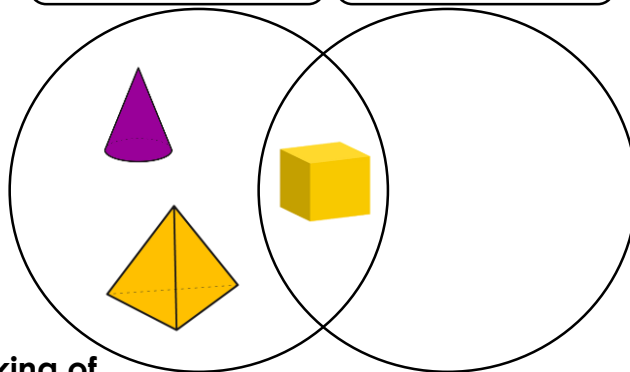
More than 9 edges

E

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6. Shona is sorting 3D shapes using a Venn diagram.

I can think of 2 shapes that fit in the empty group.

Even number of faces/surfaces

More than 4 vertices

Name 2 shapes that Shona could be thinking of.

E

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Homework/Extension – Sort 3D Shapes – Year 2 Expected

Sort 3D Shapes

7. Use the sorting hoops to complete the statements below.

Set A

Set B

The shapes in set A have ☐ edges.

The shapes in set B have ☐ edges.
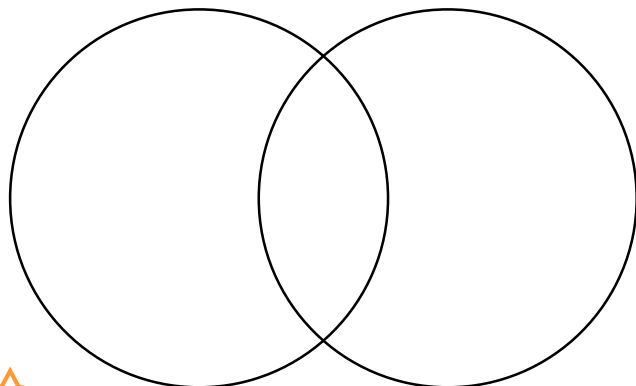
Name a shape that could not be sorted into either group.

GD

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8. Circle the shape that cannot be sorted into the Venn diagram.

Fewer than 6 vertices **Fewer than 8 edges**

GD

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9. Diana is sorting 3D shapes using a Carroll diagram.

I can think of 2 shapes that fit in the empty group.

	Square face	Curved surface
Even number of faces/surfaces		
Odd number of faces/surfaces		

Name 2 shapes that Diana could be thinking of.

GD

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Homework/Extension – Sort 3D Shapes – Year 2 Greater Depth

Developing
1. **Set A. 12; Set B. 5; various answers, for example: sphere**
2. **cone**
3. **Various answers, for example: cube and triangular-based pyramid**

Expected
4. **Set A. 2; Set B. 8; various answers, for example: cone**
5. **sphere**
6. **square-based pyramid and triangular prism**

Greater Depth
7. **Set A. 9; Set B. 1; various answers, for example: triangular-based pyramid**
8. **cuboid**
9. **sphere and cylinder**

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Homework/Extension – Sort 3D Shapes **ANSWERS**