

Varied Fluency

Step 11: Sort 3D Shapes

National Curriculum Objectives:

Mathematics Year 2: (2G1b) [Compare and sort common 3D shapes and everyday objects](#)

Mathematics Year 2: (2G2b) [Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces](#)

Differentiation:

Developing Questions to support sorting 3D shapes, with reference to the number of faces edges and vertices. All shapes presented in the same orientation and size. Perspective lines visible on all shapes.

Expected Questions to support 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 Questions to support 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 some use of real-life objects.

More [Year 2 Properties of Shape](#) resources.

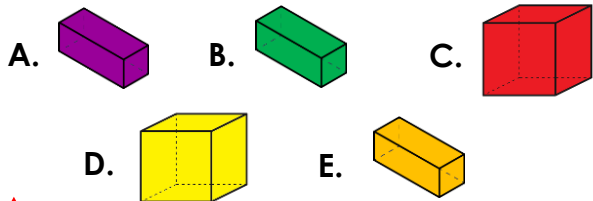
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Sort 3D Shapes

Sort 3D Shapes

1a. Sort the shapes into the table below.

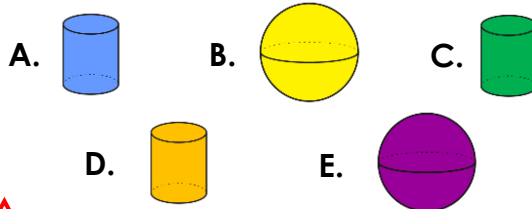
Cubes	Cuboids



VF

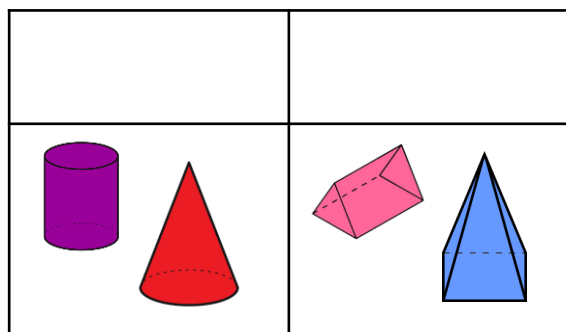
1b. Sort the shapes into the table below.

Spheres	Cylinders



VF

2a. The shapes below have been sorted. Use the word cards to label each column.



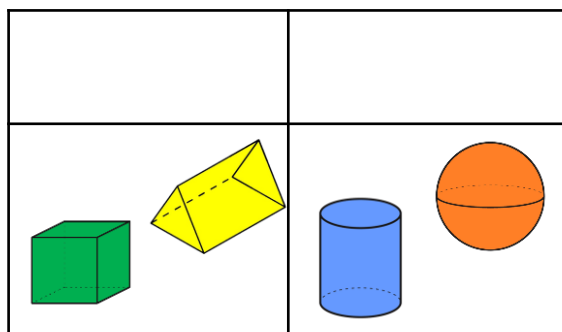
More than 5 edges

Fewer than 5 edges



VF

2b. The shapes below have been sorted. Use the word cards to label each column.



No vertices

More than 4 vertices

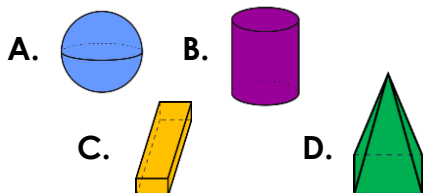
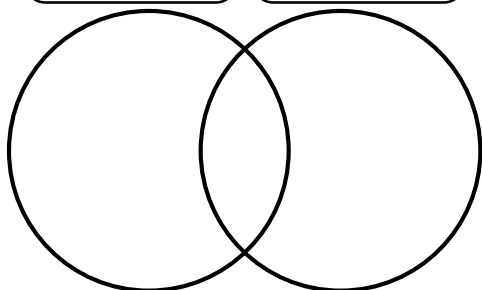


VF

3a. Sort these 3D shapes into the Venn diagram.

Curved surface

Flat face

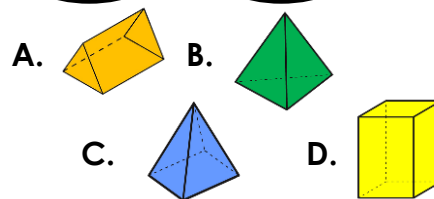
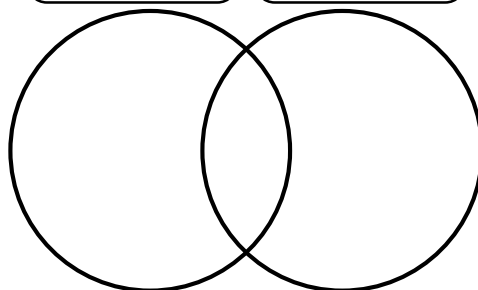


VF

3b. Sort these 3D shapes into the Venn diagram.

Rectangular face

Triangular face

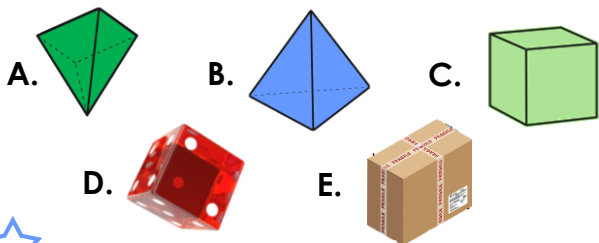


VF

Sort 3D Shapes

4a. Sort the shapes into the table below.

Cubes	Cuboids	Pyramids

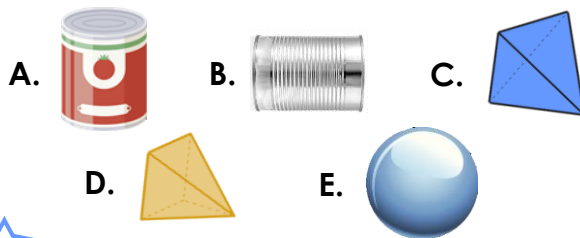


VF

Sort 3D Shapes

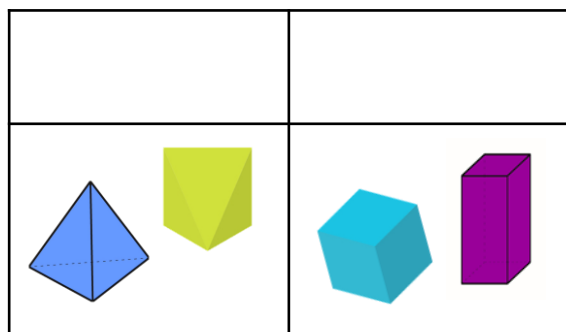
4b. Sort the shapes into the table below.

Spheres	Cylinders	Pyramids



VF

5a. The shapes below have been sorted. Use the word cards to label each column.



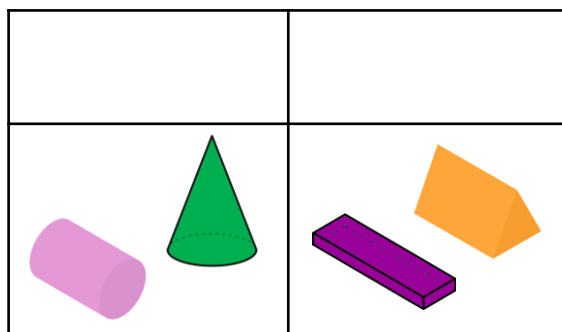
More than 10 edges

Fewer than 10 edges



VF

5b. The shapes below have been sorted. Use the word cards to label each column.



More than 5 vertices

Fewer than 5 vertices

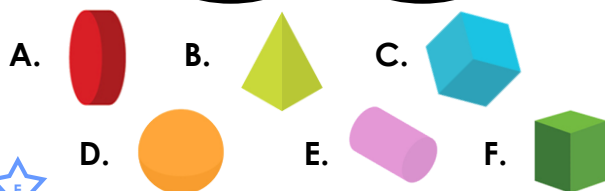
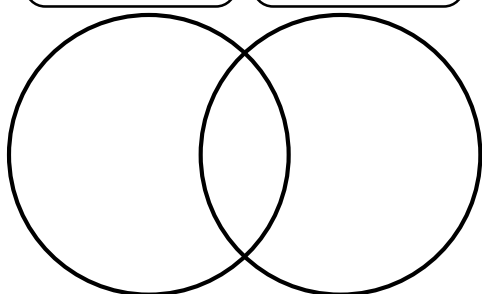


VF

6a. Sort these 3D shapes into the Venn diagram.

Curved surface

Flat face

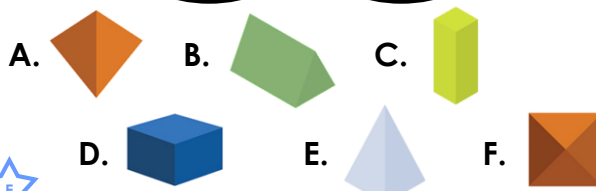
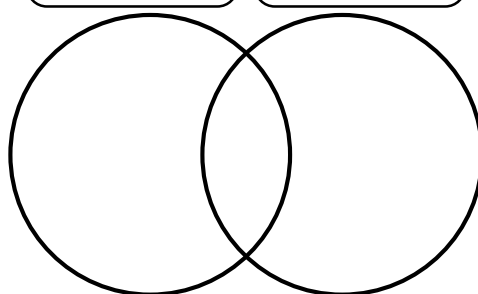


VF

6b. Sort these 3D shapes into the Venn diagram.

Rectangular face

Triangular face



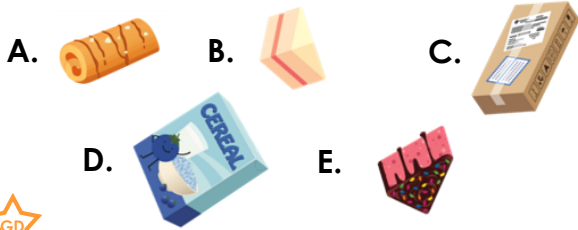
VF

Sort 3D Shapes

Sort 3D Shapes

7a. Sort the shapes into the table below.

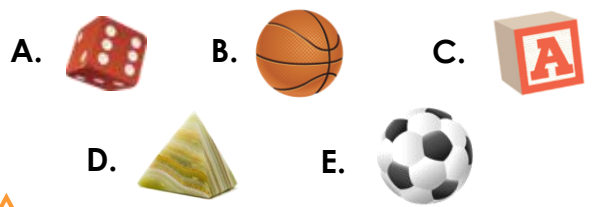
Prisms	Cuboids	Cylinders



VF

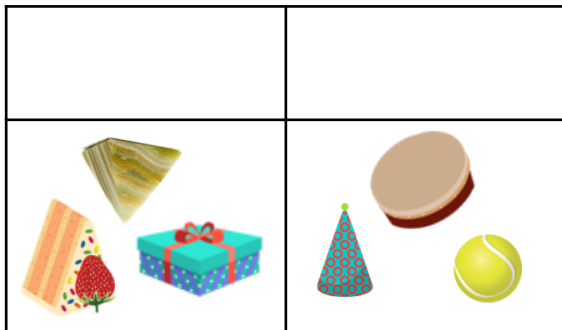
7b. Sort the shapes into the table below.

Spheres	Cubes	Pyramids



VF

8a. The shapes below have been sorted. Use the word cards to label each column.



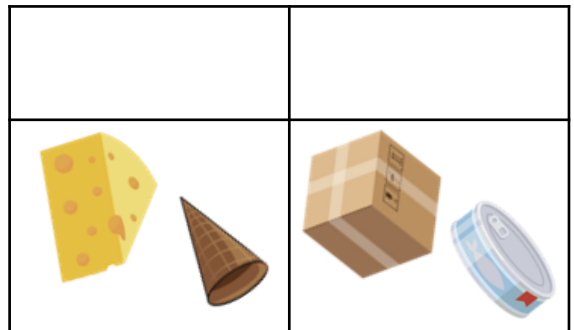
Curved surfaces

Flat faces



VF

8b. The shapes below have been sorted. Use the word cards to label each column.



Even number of edges

Odd number of edges



VF

9a. Sort these 3D shapes into the Carroll diagram.

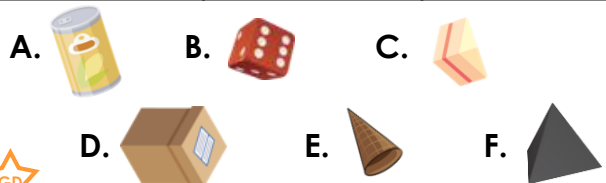
	1 – 3 faces	4 – 6 faces
No vertices		
Vertices		



VF

9b. Sort these 3D shapes into the Carroll diagram.

	1 – 3 faces	4 – 6 faces
More than 5 edges		
Fewer than 5 edges		



VF

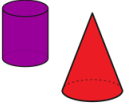
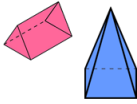
Varied Fluency Sort 3D Shapes

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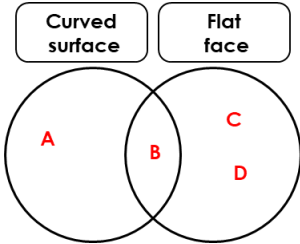
Developing

1a. **Cubes = C, D; Cuboids = A, B, E**

2a.

Fewer than 5 edges	More than 5 edges
	

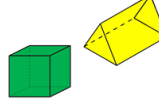
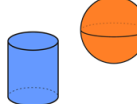
3a.



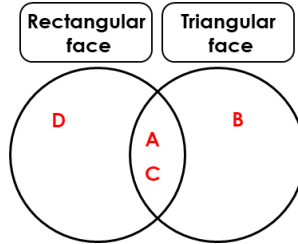
Developing

1b. **Spheres = B, E; Cylinders = A, C, D**

2b.

More than 4 vertices	No vertices
	

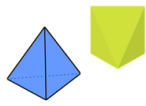
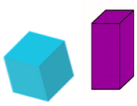
3b.



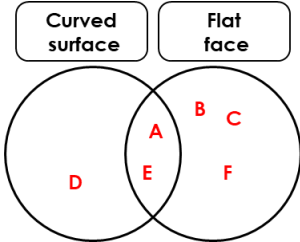
Expected

4a. **Cubes = C, D; Cuboids = E; Pyramids = A, B**

5a.

Fewer than 10 edges	More than 10 edges
	


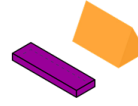
6a.



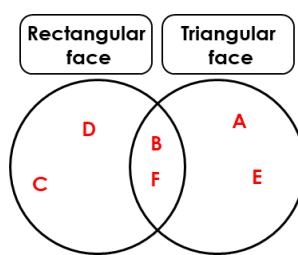
Expected

4b. **Spheres = E; Cylinders = A, B; Pyramids = C, D**

5b.

Fewer than 5 vertices	More than 5 vertices
	

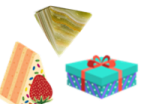

6b.



Greater Depth

7a. **Prisms = B, E; Cuboids = C, D; Cylinders = A**

8a.

Flat faces	Curved surfaces
	



9a.

	1 - 3 faces	4 - 6 faces
No vertices	E A	
Vertices	F	B D C

Greater Depth

7b. **Spheres = B, E; Cubes = A, C; Pyramids = D**

8b.

Odd number of edges	Even number of edges
	

9b.

	1 - 3 faces	4 - 6 faces
More than 5 edges		B D F C
Fewer than 5 edges	A E	