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 and vertices. Includes cylinders, cones, cubes and cuboids.
Expected Questions to support sorting 3D shapes, with reference to the number of faces, edges and vertices. Includes cylinders, cones, cubes, cuboids, square-based pyramids and triangular-based pyramids.
Greater Depth Questions to support sorting 3D shapes, with reference to the number of faces, edges and vertices. Includes cylinders, cones, cubes, cuboids, hemispheres, and pyramids and prisms with a variety of different bases.

More Year 2 Properties of Shape resources.

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

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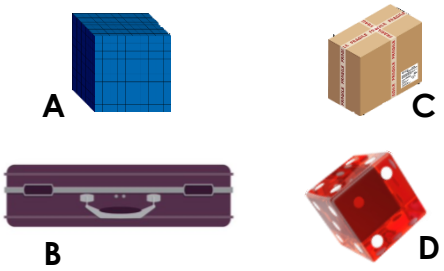
Sort 3D Shapes

Sort 3D Shapes

1a. Sort the shapes below into the table.

Cubes	Cuboids



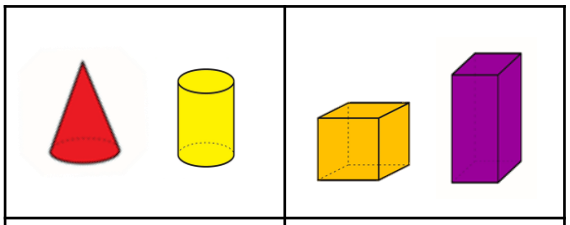
D VF

1b. Sort the shapes below into the table.

Spheres	Cylinders

D VF

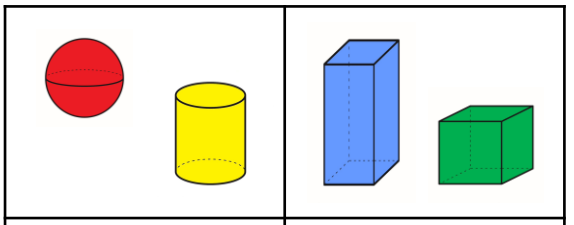
2a. True or false? These shapes have been sorted correctly by number of faces.



4 faces	6 faces

D VF

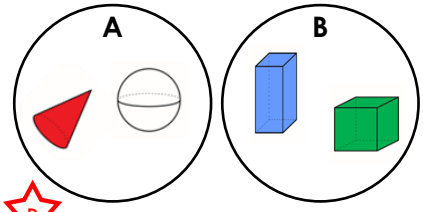
2b. True or false? These shapes have been sorted correctly by number of vertices.



4 vertices	8 vertices

D VF

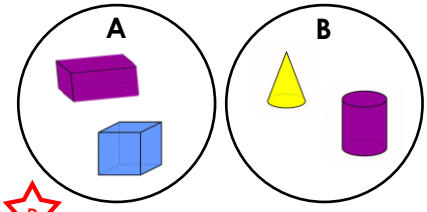
3a. Match the groups to the correct labels.



8 faces
Curved surface
6 faces

D VF

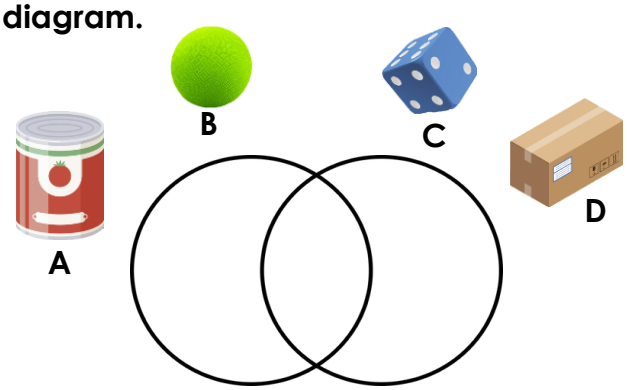
3b. Match the groups to the correct labels.



Flat faces
Square face
Circular face

D VF

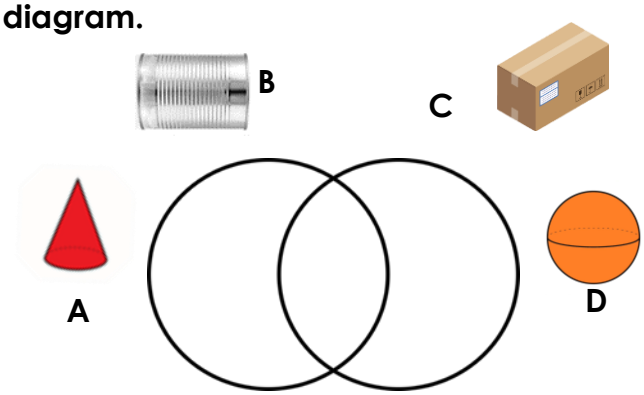
4a. Sort these 3D shapes into the Venn diagram.



Curved surface	Flat face

D VF

4b. Sort these 3D shapes into the Venn diagram.



Will roll when moved	Will slide when moved

D VF

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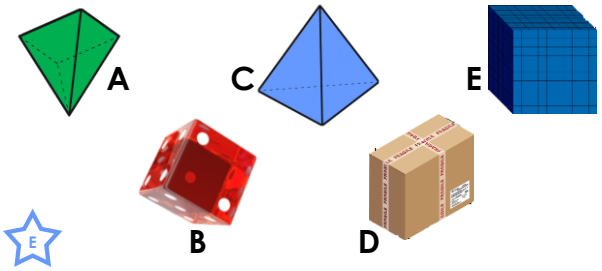
Sort 3D Shapes

5a. Sort the shapes below into the table.

Cubes	Cuboids	Pyramids

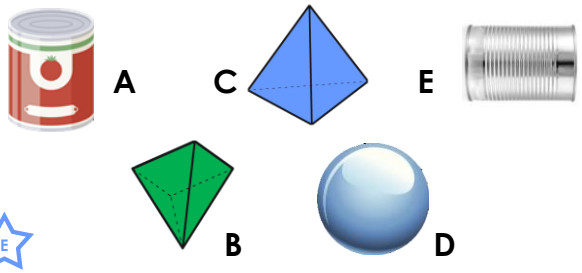


VF

Sort 3D Shapes

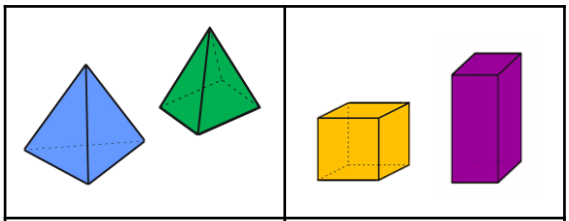
5b. Sort the shapes below into the table.

Spheres	Cylinders	Pyramids



VF

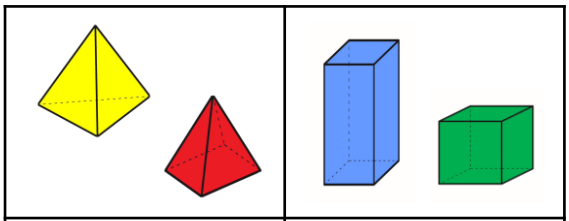
6a. True or false? These shapes have been sorted correctly by number of edges.



6 edges	12 edges

VF

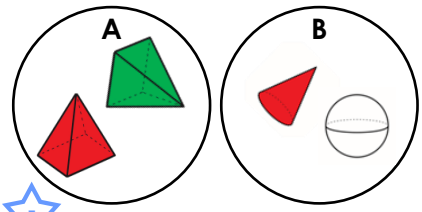
6b. True or false? These shapes have been sorted correctly by number of vertices.



4 vertices	8 vertices

VF

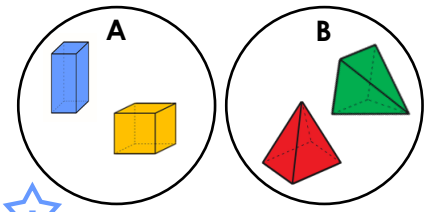
7a. Match the groups to the correct labels.



Curved surfaces
8 faces
5 faces
4 faces

VF

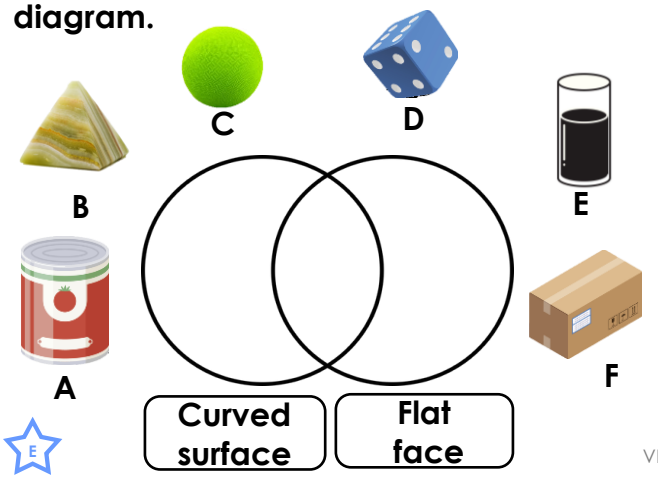
7b. Match the groups to the correct labels.



Curved surfaces
8 vertices
6 vertices
5 vertices

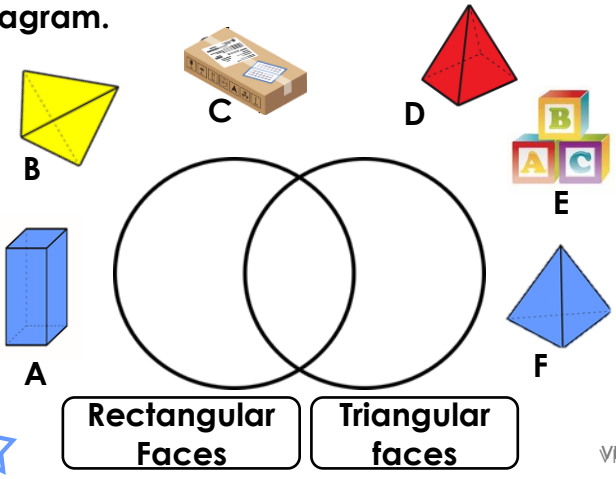
VF

8a. Sort these 3D shapes into the Venn diagram.



VF

8b. Sort these 3D shapes into the Venn diagram.



VF

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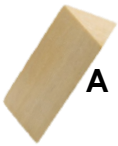
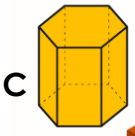
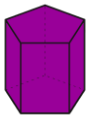
Sort 3D Shapes

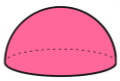
9a. Sort the shapes below into the table.

Prisms	Cuboids	Cylinders


A


C


E


B

D

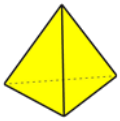
F

GD VF

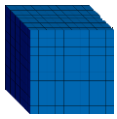
Sort 3D Shapes

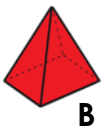
9b. Sort the shapes below into the table.

Spheres	Cubes	Pyramids


A

C


E

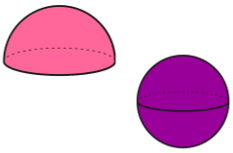
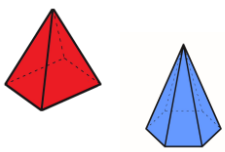

B

D

F

GD VF

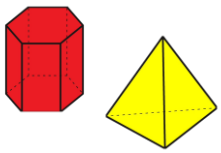
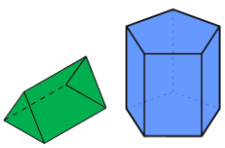
10a. True or false? These shapes have been sorted correctly by their surface descriptions.

Curved surfaces only	Flat surfaces only

GD VF

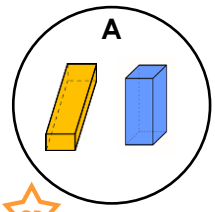
10b. True or false? These shapes have been sorted correctly by number of edges.

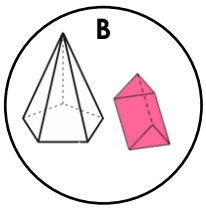



Even number of edges	Odd number of edges

GD VF

11a. Match the groups to the correct labels.

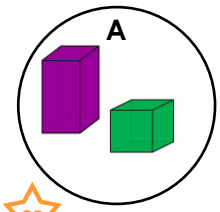

A

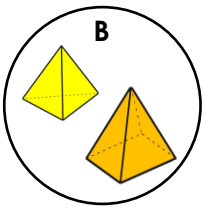

B

Cuboids
Pyramids
7 faces
6 edges
6 vertices

GD VF

11b. Match the groups to the correct labels.


A


B

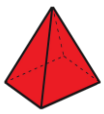
Cylinders
Pyramids
5 faces
7 vertices
12 edges

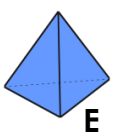
GD VF

12a. Sort these 3D shapes into the Venn diagram.

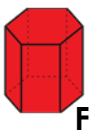
C

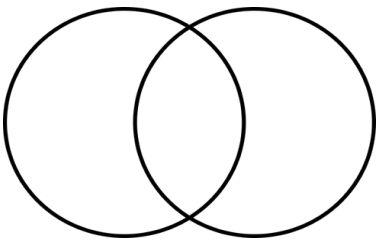
D


B


E

A


F



1 – 6 faces	1 – 6 vertices

GD VF

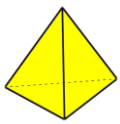
12b. Sort these 3D shapes into the Venn diagram.

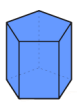
B

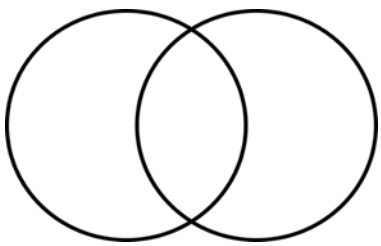
C

D

E


A


F



> 6 faces	> 6 edges

GD VF

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Varied Fluency – Sort 3D Shapes – Year 2 Greater Depth

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Varied Fluency
Sort 3D Shapes

Developing

1a. Cubes – A, D; Cuboids – B, C

2a. False, the cone and cylinder don't have 4 faces.

3a. A – Curved surface; B – 6 faces

4a. Curved surface – B; Both – A; Flat faces – C, D

Expected

5a. Cubes – B, E; Cuboids – D; Pyramids – A, C

6a. False, the square-based pyramid does not have 6 edges.

7a. A – 5 faces; B – Curved surfaces

8a. Curved surfaces – C; Both – A, E; Flat faces – B, D, F

Greater Depth

9a. Prisms – A, C, E; Cuboids – D; Cylinders – F; B doesn't fit into the table.

10a. False, the hemisphere has a flat surface.

11a. A – Cuboids; B – 6 vertices

12a. 1 – 6 faces – A, D; Both – B, C, E; Outside – F

Varied Fluency
Sort 3D Shapes

Developing

1b. Spheres – A, C; Cylinders: B, D

2b. False, the sphere and cylinder don't have 4 vertices.

3b. A – Flat faces; B – Circular face

4b. Will roll – D; Both – A, B; Will slide – C

Expected

5b. Spheres – D; Cylinders – A, E; Pyramid - B, C

6b. False, the square-based pyramid does not have 4 vertices.

7b. 8 vertices; 5 vertices

8b. Rectangular faces – A, C, E; Both – D; Triangular faces – B, F

Greater Depth

9b. Spheres – F; Cubes – E; Pyramids – A, B; C and D don't fit into the table.

10b. True.

11b. A – 12 edges; B – Pyramids

12b. Both – E, F; > 6 edges: B, C, D; Outside – A

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