Year 2 maths - week beginning: 27.4.20

Theme	3D Shape lesson 1 Recognising 3D shapes	3D Shape lesson 2 Describing 3D shapes	3D Shape lesson 3 Grouping 3D shapes	3D Shape lesson 4 Making patterns with 3D shapes	3D Shape lesson 5 3D shapes quiz
Factual fluency (to aid fluency)	Identify and match circles, rectangles, squares and triangles https://www.topmarks.co.uk/early-years/shape-monsters	Complete this 2D shapes quiz: https://www.educationquizzes.com/ks1/maths/year-2-shapes-describing-2d-shapes/	Scroll down to the 4th box to complete another 2D shapes quiz: https://www.bbc.co.uk/bitesize/topics/zjv39j6/articles/ztpwdmn	Making patterns with 2D shapes Level 3: https://www.topmarks.co.uk/ordering-and-sequencing/shape-patterns	Sort 2D and 3D shapes: https://www.education.com/game/2d-3d-shapes/
Problem/ activity of the day	(Lesson 1 resources below) **MAKING LINKS:** We learnt about solid shapes such as spheres, cuboids, cubes and pyramids in Year 1. Look below to remind yourself. **THINK:(support below)** Can you help me with this problem? Do the objects in this video have flat faces or curved surfaces? Or both? What 2D shapes can you see on the flat faces of the 3D shapes? **SEE: (model below)** Scroll below to see if each shape had flat faces, curved surfaces or both. You will also find out which 2D shapes were found on the flat faces. **DO:** Use what you have learnt today to solve the problems below.	(Lesson 2 resources below) **MAKING LINKS:** Yesterday we learnt to recognise a range of 3D shapes. **THINK:(support below)** Can you help me with this problem? How many faces, edges and vertices do my 3D objects below have? What shapes are the flat faces? If you can find similar shaped objects in your household, this will help you to find the answers! **SEE: (model below)** Look at this video here to remind yourselves what faces, edges and vertices are and to help you find these features on one of my objects. **DO:** 1. Find the faces, edges and vertices of similar 3D shaped objects in your own house. 2. Use what you have learnt today to solve the problems below.	(Lesson 3 resources below) **MAKING LINKS:** Yesterday we learnt to describe 3D shapes. Remind yourself what faces, edges and vertices mean. **THINK:(support below)** Look at my set of 3D shapes below. I can't figure out how to sort them into groups! Can you help me? Try to sort them in different ways. **SEE: (model below)** Look below to see how I grouped my 3D shapes by size. How did you group yours? **DO:** Use what you have learnt today to solve the problems below. **Challenge:** Can you explain your answers in a statement?	(Lesson 4 resources below) **MAKING LINKS:** We learnt about making patterns in Year 1. Not sure? Look below to remind yourself. **THINK:(support below)** Can you help me with the problem below? What is missing in the pattern? How do you know? **SEE: (model below)** Watch this video to remind ourselves how to find the missing shape in pattern. You can also find another example below. **DO:** Use what you have learnt today to circle the missing shape in each pattern. **Challenge:** Can you create a 3D shapes pattern using solids that you can find at home or by drawing them?	**Revision online games: (Optional)** a) Identify 3D shapes game b) Group the 3D shapes game. **DO:** The quiz below **Challenge:** Can you find 3D shapes in your house? • 3 cuboids • 3 cylinders • 3 cubes Can you create your own pattern using these solids?
Methods, tips & clues	*THINK video clip: above* *SEE model: below (day 1)*	*SEE model: below (day 2)* *SEE video clip: above*	*THINK problem: below* *SEE model: below (day 3)*	*THINK problem: below* *SEE video clip: above*	*None*
Time to check	*Answer sheet at the bottom of the document*	*Answer sheet at the bottom of the document*	*Answer sheet at the bottom of the document*	*Answer sheet at the bottom of the document*	*Answer sheet at the bottom of the document*

See below for resources to support you to THINK-SEE-DO

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Support Word and picture bank

A line that bends smoothly in one direction without any straight parts.

curved

Smooth and straight

flat

cube   cone   pyramid   cylinder

circle   square   rectangle   triangle

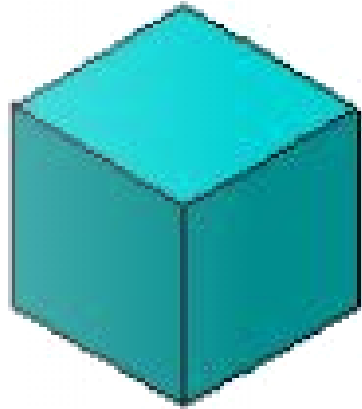An **edge** is where two faces meet

Edge

A **face** is the flat surface of the shape
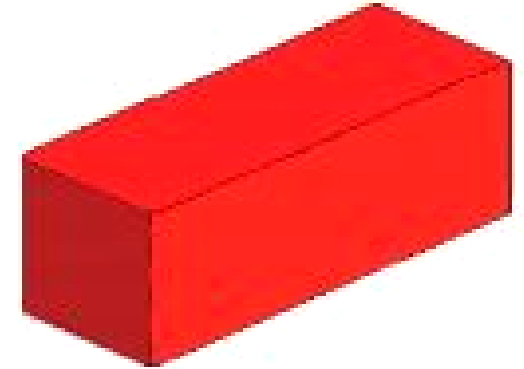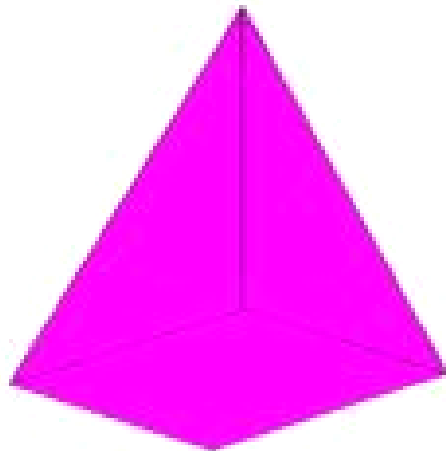
Face

A **vertex** is where two or more edges meet

Vertex

cube

cuboid

pyramid

sphere

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THINK: Do these objects have flat faces, curved surfaces or both?

SEE:
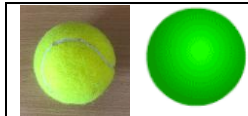
The tennis ball is shaped like a sphere. The sphere has a curved surface.	The tea box is shaped like a cube. The cube has flat faces. Each flat face is a square.
The can of coconut milk is shaped like a cylinder. A cylinder has flat faces and a curved surface. The flat faces are circles.	This piece of art work is shaped like a cuboid. A cuboid has flat faces. The flat faces are rectangles.
The party hat is shaped like a cone. A cone has a curved surface and a flat face. The flat face is a circle.	
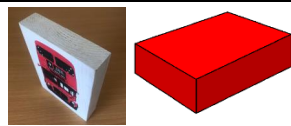
DO:

1. Circle the correct answer OR write your answer in your book to show if each object has a flat face, a curved surface or both.

a.   Has (curved surface/flat face/both)

b.   Has (curved surface/flat face/both)

c.   Has (curved surface/flat face/both)

2. Match

cuboid

cube

sphere

cone

THINK: Do these objects have flat faces or curved surfaces?

SEE: Watch the video to see how we find faces, edges and vertices OR look at this image to help you see what to look for.

DO:

Describe each of the following shapes by completing the table:

	Name	Number of faces	Number of vertices	Number of edges
cube				
pyramid				
cylinder				
cone				
triangular prism				

Challenge:
What 2D shapes can you see on the faces of the shapes?

1) _____
2) _____
3) _____
4) _____
5) _____

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THINK: How could I sort these 3D shapes into different groups?
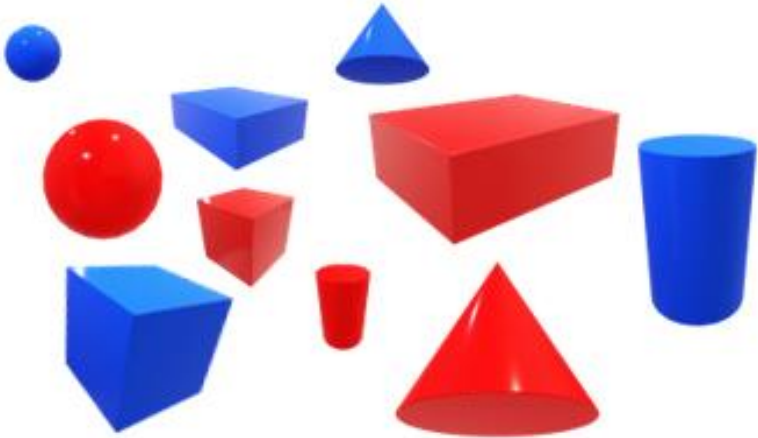
SEE: I could group these by size.

Big

Small
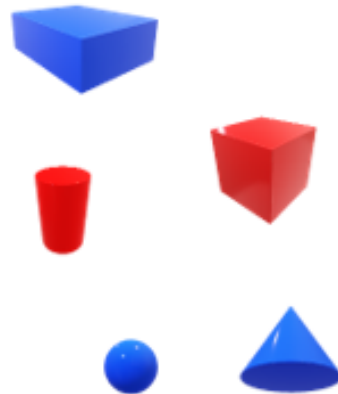
DO: Have these shapes been grouped correctly?
Challenge: Explain your answer.

1)
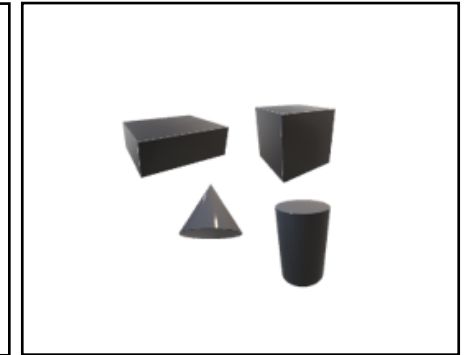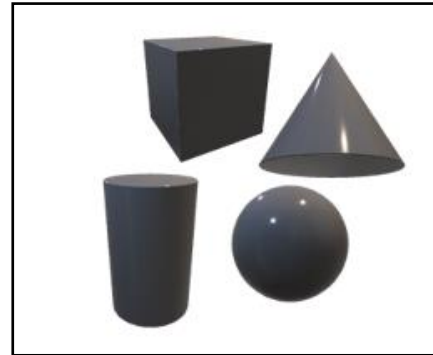
Yes/No

2)

Yes/No

3)

Yes/No

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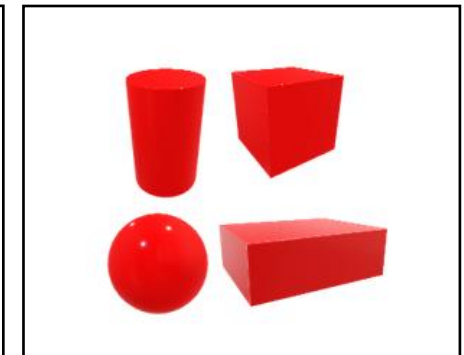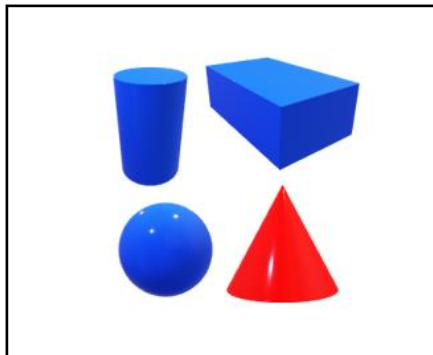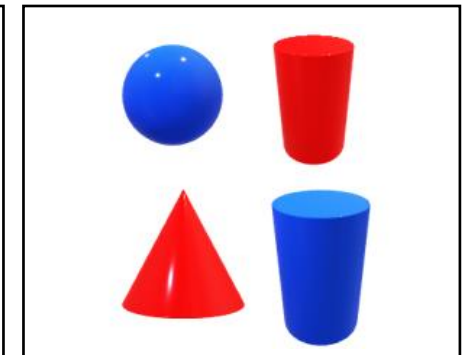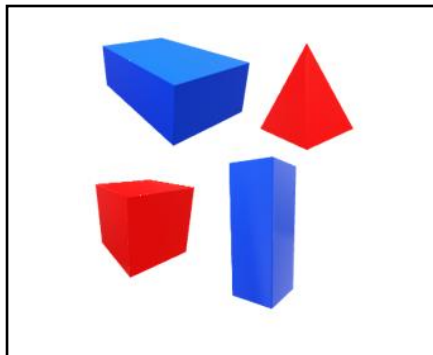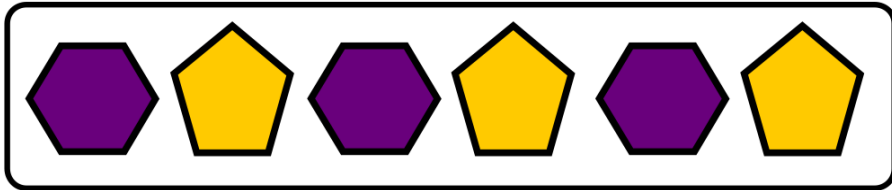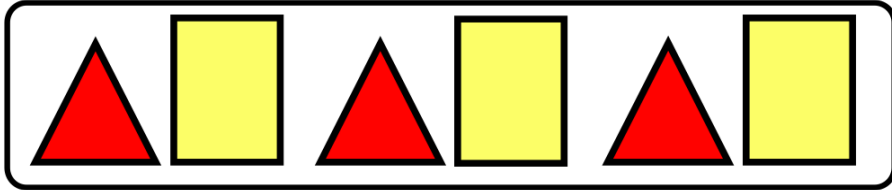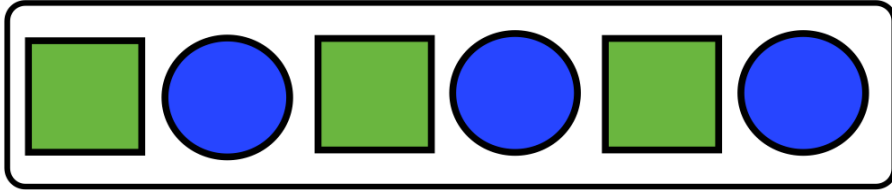
The shapes and colours are changing

Green square blue circle

Red triangle yellow rectangle

purple hexagon yellow pentagon

Day 4 Resources:

THINK: What is missing in the pattern? How do you know?
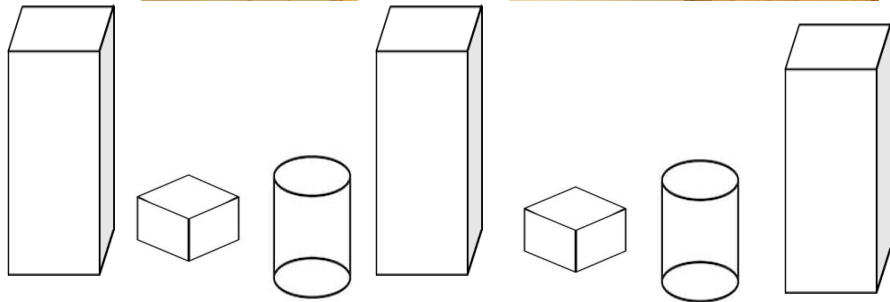
SEE: Watch the video to find the missing shape.

The missing shape is a ☐.
The pattern is a cuboid, a cube and a cylinder.
This is a pattern using different shapes.
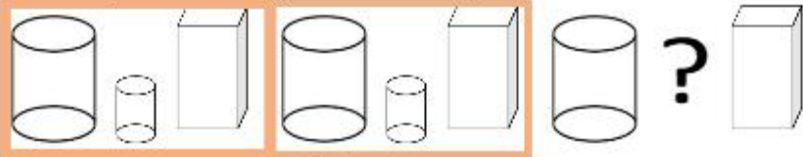
The missing shape is a ⬭.
The pattern is a big cylinder, a small cylinder and a cuboid.
This is a pattern using different shapes and sizes.

DO: Circle the missing shape in each pattern.

a)

b)

c)
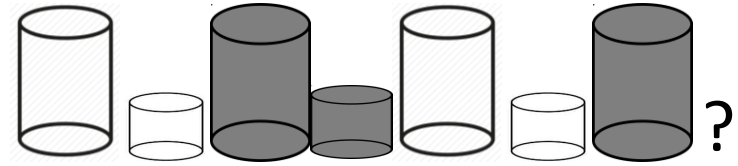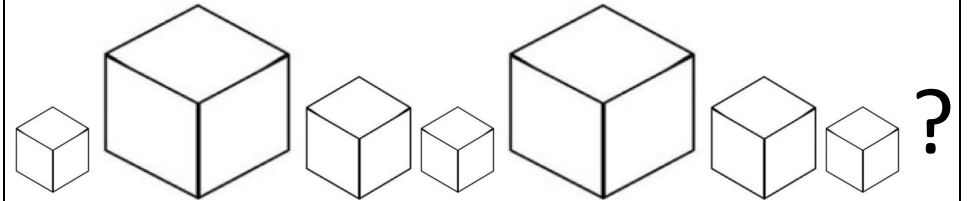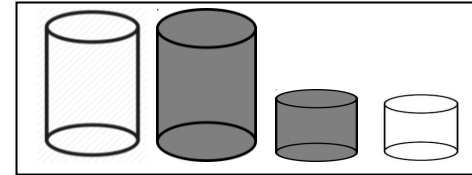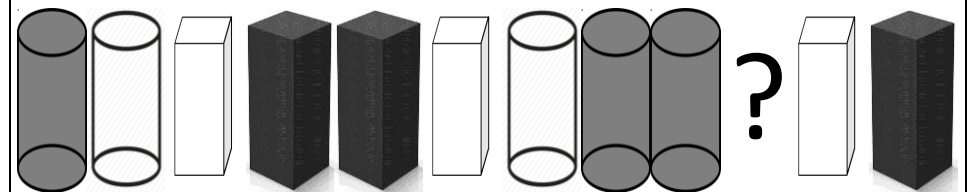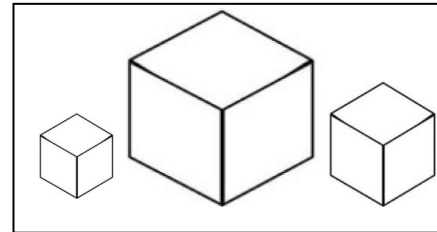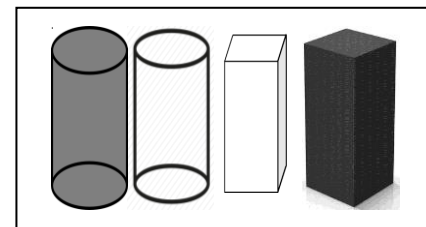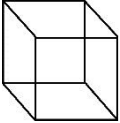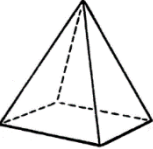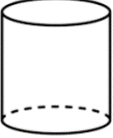
a) **Circle the solids that have a curved face:**
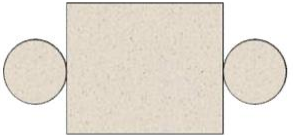
c) **Circle the right answer.**

1.	2.	3.
a) Cube b) Cylinder c) Cuboid	a) Cube b) Cylinder c) Cuboid	a) Cube b) Cylinder c) Cone

b)

	Name	Number of faces	Number of vertices	Number of edges
		5	6	
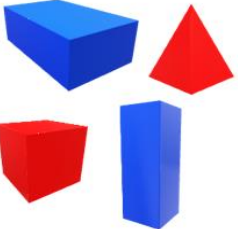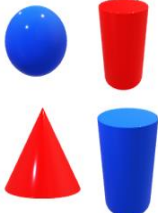
4. Have they been grouped correctly?
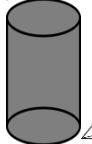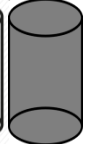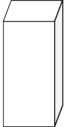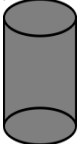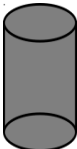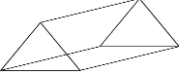
Yes / No   Why? _____

5.

a) Pyramid
b) Prism
c) Cone

6. Circle the missing shape.

?

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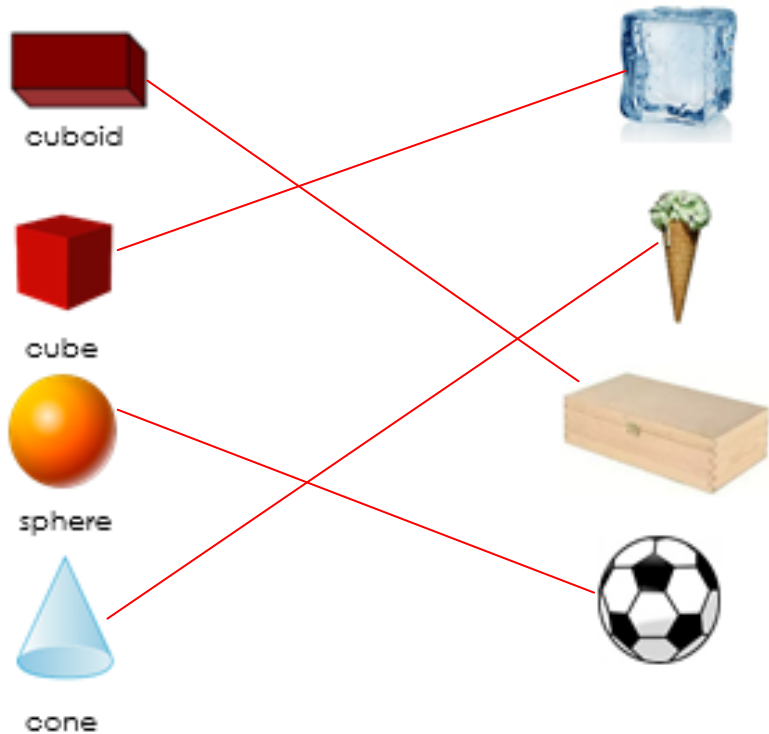
Answers: Day 1

DO:

1. Circle the correct answer to show if each object has a flat face, a curved surface or both.

a. Has (**curved surface**/flat face/both)

b. Has (curved surface/**flat face**/both)

c. Has (curved surface/flat face/**both**)

2. Match

cuboid

cube

sphere

cone

Day 2:

DO:

Describe each of the following shapes by completing the table:

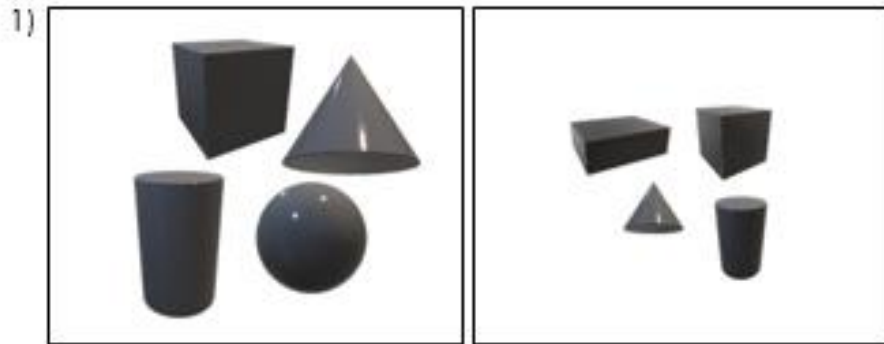|	Name	Number of faces	Number of vertices	Number of edges
	Cube	6	8	12
	Pyramid	5	5	8
	Cylinder	3	0	2
	Cone	2	1	1
	Prism	5	6	9

Challenge:
What 2D shapes can you see on the faces of the shapes?

1) squares
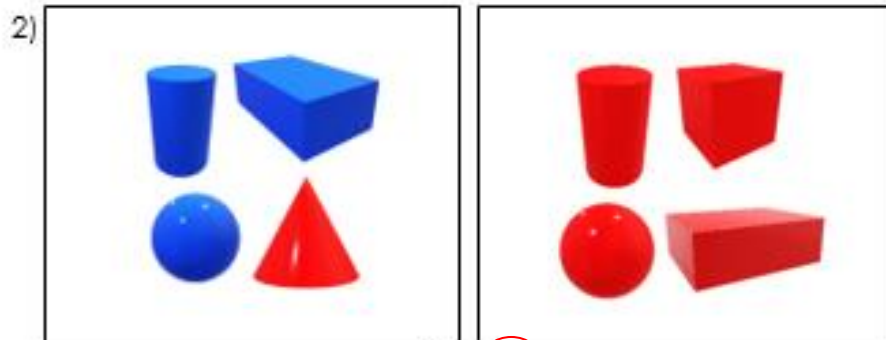2) triangles, square
3) circles
4) circle
5) rectangles, triangles
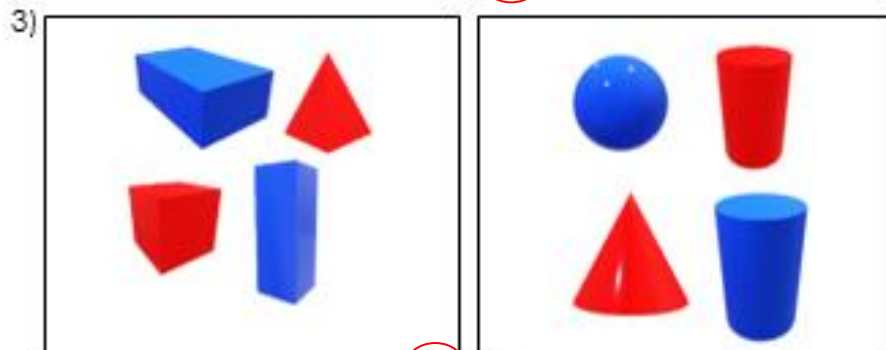
Day 3:

DO: Have these shapes been grouped correctly?
Challenge: Explain your answer.

1)

Yes/No

These 3D shapes are grouped correctly as they have been grouped by their size. The first box have large 3D shapes and the second box has small 3D shapes.

2)

Yes/No

These 3D shapes are not grouped correctly. The cone should not be in the first box as it is red and not blue.
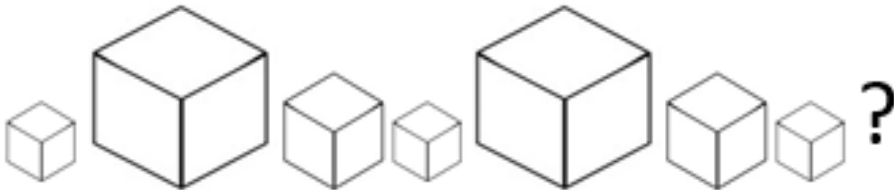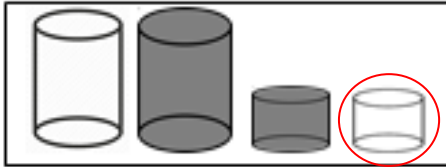
3)

Yes/No

These 3D shapes are grouped correctly. The first box has 3D shapes with only flat faces. The second box had 3D shapes with some curved surfaces.
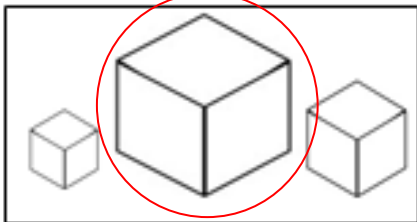
Day 4:

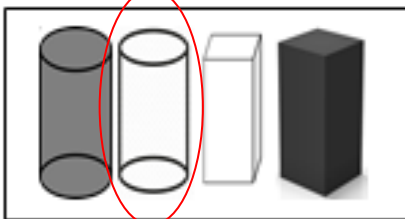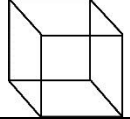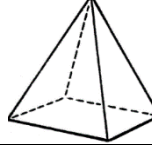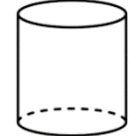**DO:** Circle the missing shape in each pattern.

a)

b)
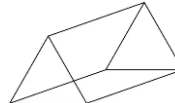
c)

Day 5:

a) sphere, cone, cylinder

b)

	Name	Number of faces	Number of vertices	Number of edges
	cube	6	8	12
	Square based pyramid	6	5	8
	cylinder	3	0	2
	Triangular prism	5	6	9

c) Circle the right answer:
1) cuboid
2) cylinder
3) cylinder
4) Yes, flat surfaces /curved surface
5) pyramid
6)