



Drake Class
Year 5 and 6 Maths Home Learning Activities
Week beginning Monday 11/05/20



Geometry

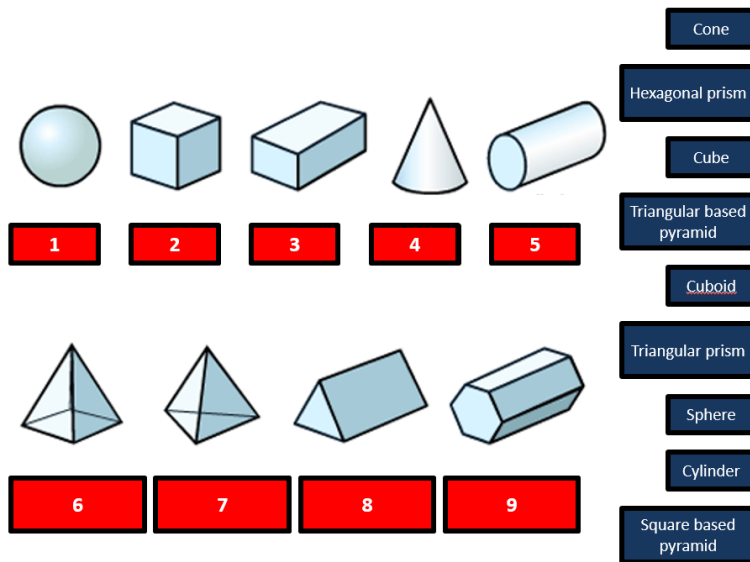
This topic is a recap of knowledge that they have covered previously. So if you feel like you may have seen these problems before, you may have.

Alternatively, you could follow a revision area through BBC Bitesize and their daily lessons but these may not be linked to our current topic.

Year 5: <https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-and-p6-lessons/1>

Year 6: <https://www.bbc.co.uk/bitesize/tags/zncscw/year-6-and-p7-lessons/1>

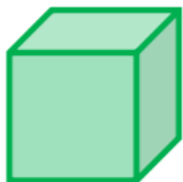
Step 1: Remind yourself of 3D shapes.



(If you need the answers, look at the page below)

Where can you find these shapes in everyday life? Give an example of each?

Step 2: Identify the properties of 3D shapes



This shape is a _____.
It has ____ faces.
It has ____ edges.
It has ____ vertices.

Use this format (draw the shape and list the properties) for 4 shapes from Step 1 to investigate.

Face – the flat or curved space in between edges

Edge – where two or more faces meet

Vertex (Vertices) – where two or more edges meet

For more help/activities: <https://www.mathsisfun.com/geometry/vertices-faces-edges.html>

Step 3:

To understand 3D nets.

Look at the posters below and **print or copy the nets** to create your own 3D shapes by cutting, folding and sticking up. Look closely and investigate how each edge meets and which faces are on the opposite sides.

Maybe create a dice – where the opposite sides total 7 – and visualise and draw on them before you fold it.

Alternatively, you could investigate and **draw your own nets**.

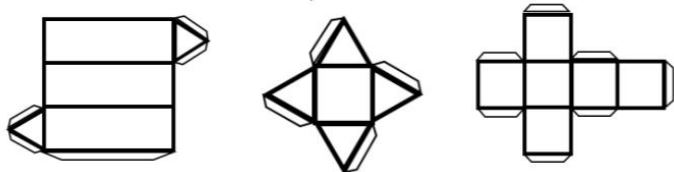
Use them to identify the properties of shapes and number the faces, mark the edges and vertices – you could use them to check your answers to Step 2.

For more help/information: <https://www.bbc.co.uk/bitesize/topics/zt7xk2p/articles/z247tv4>

Step 4:

To understand 3D nets.

What three-dimensional shape can be made from these nets?



Draw possible nets of these three-dimensional shapes.



You could also take an object apart to see what their net looks like – a cereal box opened up to reveal the net of a cuboid.

Step 5:

Visualise and problem solve with nets

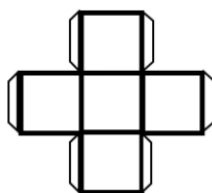
Amir says,

If two 3-D shapes have the same number of vertices, then they also have the same number of edges.



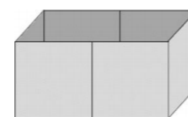
Do you agree?
Explain why.

Dora thinks that this net will fold to create a cube.



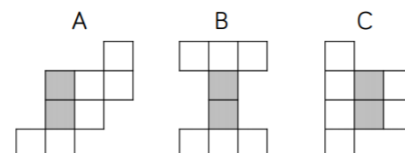
Do you agree with Dora?
Explain your answer.

Here is an open box.



Which of the nets will fold together to make the box?

The grey squares show the base.



Extension: Patterns with pyramids and prisms

Can you fill in the grids and spot patterns?

Are there any rules you could write down?

Prism	Faces	Edges	Vertices
Triangular Prism			
(Cuboid)			
Pentagonal Prism			
Hexagonal Prism			
Heptagonal Prism			
Octagonal Prism			

Pyramid	Faces	Edges	Vertices
Triangular-based			
Square-based			
Pentagonal-based			
Hexagonal-based			
Heptagonal-based			
Octagonal-based			

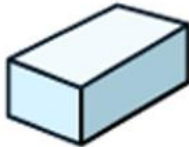
3D Shapes Answers:



Sphere



Cube



Cuboid



Cone



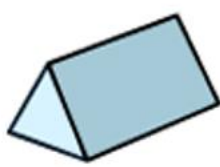
Cylinder



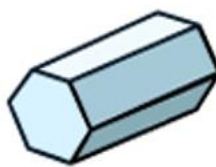
Square based pyramid



Triangular based pyramid



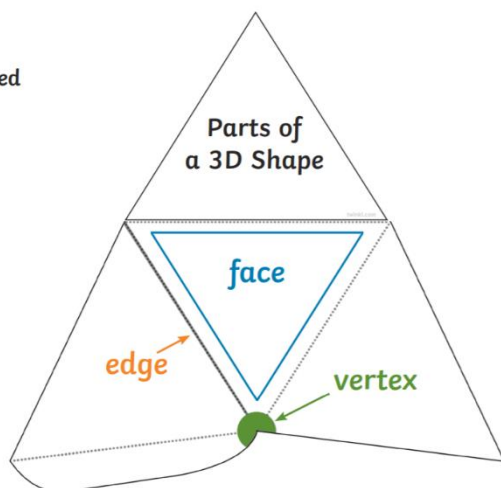
Triangular prism



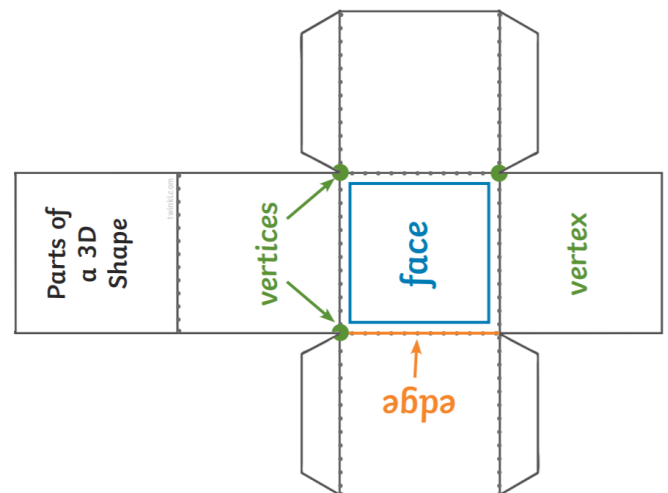
Hexagonal prism

3D Nets examples:

Triangular-based Pyramid

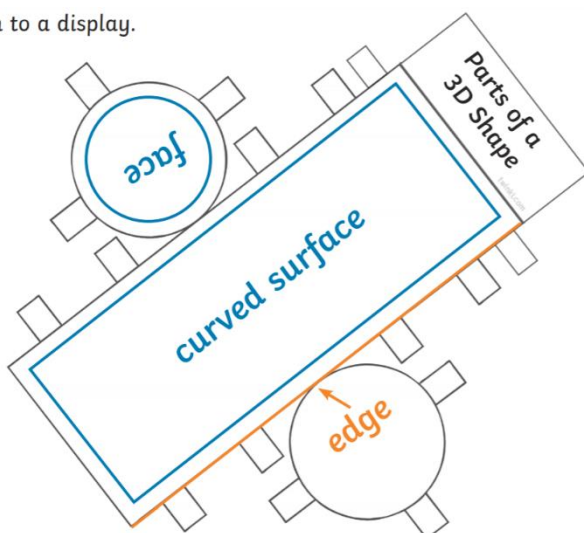


Cube

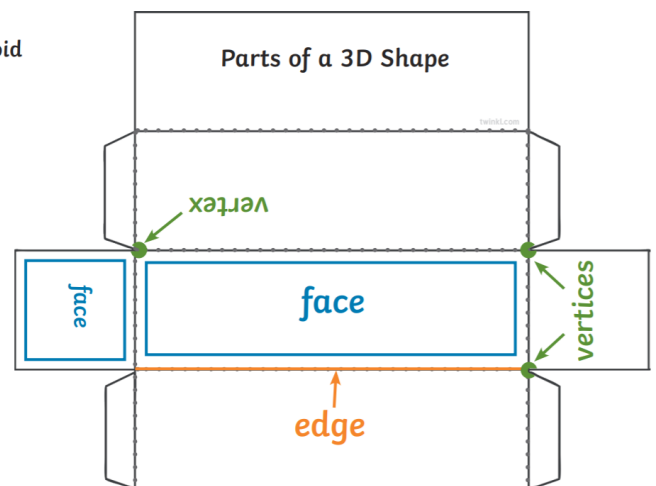


or attach to a display.

Cylinder



Cuboid



Additional areas to work on:

Play on Hit the Button - focus multiplication tables.

Work through the areas of an arithmetic paper (which can be found on the KS2 Maths Organiser on the school website) Look at the Calculation Policy on the school website under 'Curriculum' and then 'Maths' for help in how to support + - x and ÷

<https://www.sampford-peverell-primary.devon.sch.uk/website/maths/459621>

Also in the maths section of the website is a link to a fantastic maths revision interactive resource which gives the children extra questions in whichever area of maths they would like to work on a little more – with YouTube links to explain the process!