

Maths Week 1

Message

Hi Year 2,

Here is your first week of Maths remote learning. There are 5 Maths lessons – one for each day. All of the Maths lessons are about 2D shapes. By the end of the week, we want you to know the names of all the 2D shapes and what their properties are: how many **sides** and **vertices (corners)** they have.

There are also some websites and a maths investigation you could try.

Have fun!

Ms Creamer, Mr Heidensohn, Miss Ibbotson and Mr Ibbotson.

Maths lessons

Lesson 1

Create a 2D shape poster. Draw these different 2D shapes: **circle, triangle, square, rectangle, pentagon, hexagon, heptagon, and octagon**. You could use the attached 2D shape poster to help you. Drawing some of these shapes could be quite tricky, but try your best (a ruler might help!). Alternatively, you could print the shape poster and cut out and stick the shapes. Write the name of each shape on your poster, making sure you spell them correctly. Leave some space under each shape so you can add to your poster in the next lesson.

Lesson 2

Watch this clip <https://www.youtube.com/watch?v=24Uv8Cl5hvl>

Activity 1

2D shapes have the following properties: **Sides** and **Vertices (corners)**.

On your poster, under each shape write down how many sides and vertices it has. See if you notice a link between the amount of sides and vertices each shape has?

Activity 2

Create a table that looks like this:

	Number of vertices
2 squares	
4 triangles	
2 pentagons	

In one column, write down a shape and how many of that shape you have (e.g. '2 triangles'). In the next column, write down the number of vertices (e.g. '6 vertices').

Lesson 3

Activity 1

As long as a shape has 3 straight sides and 3 vertices, then it is a **triangle**. Using a ruler, draw different triangles on a piece of paper. Some should have sides that are a similar length and some should have sides where the lengths are very different. This is a good chance to practise using a ruler.

Activity 2

As long as a shape has 5 straight sides and 5 vertices then it is a **pentagon**. Using a ruler, draw different pentagons on a piece of paper. Some should have sides that are a similar length and some should have sides where the lengths are very different. We hope you notice that pentagons can look very different.

Extension activity (if you have time)

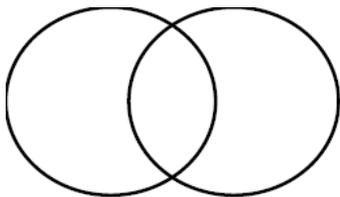
<https://nrich.maths.org/7009>

Follow this link and do the activity on paper.

Lesson 4

Activity 1

This is a Venn Diagram (we learnt about these in science earlier in the year):



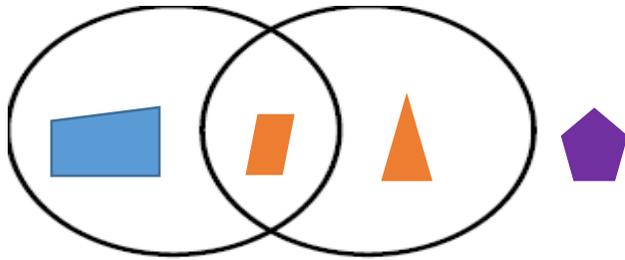
Quadrilateral Orange



Draw this Venn diagram on a large piece of paper. Make sure the 2 circles overlap. Write down **quadrilateral** and **orange** underneath the 2 circles. A **quadrilateral** is *any shape with 4 sides*. Squares and rectangles both have their own names but are also *types of quadrilateral*.

Please now use coloured pencils or felt tips to draw shapes in the correct part of the Venn Diagram.

Here are some to help you get started:



Quadrilateral Orange

Remember - any orange quadrilateral will need to go in the middle, inside both circles. Any shape that is not a quadrilateral and is not orange will need to go on the outside.

If you have time, you could draw a new Venn Diagram and this time write 2 new labels. One can be a shape and one a colour.

Activity 2

Play this Venn diagram game:

<http://www.shodor.org/interactivate/activities/ShapeSorter/>

Pick the option where the circles overlap and then choose a rule for each circle.

Lesson 5

You should now know the names of lots of different 2D shapes. Go on a shape hunt around your home and see what shapes you can see. You could: draw the objects and write what shape you see (e.g. A book = rectangle); take pictures of the different objects; or keep a tally chart and find out which shape you see the most in your home.

Website Links

Sorting shapes:

<https://nrich.maths.org/5997>

Pattern shapes:

<https://apps.mathlearningcenter.org/pattern-shapes/>

Finding symmetry:

<http://www.scottle.edu.au/ec/viewing/L7798/index.html>

2D shapes – sides and vertices:

<https://www.youtube.com/watch?v=24Uv8CI5hvI>

Games and Investigations

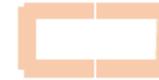
Here are 18 lollipop sticks (get creative - what could be used instead of lollipop sticks?)

How many hexagons can you make?



How many octagons can you make?
What other shapes can you make with 18 sticks?

Mo makes a rectangle using sticks.



How many identical rectangles could he make with 18 sticks?

Make your own rectangle. How many sticks did you use?