

## News

The end of Term 4 saw us announce the winners of the termly TTRS competition. Well done to our winning classes Dragon and Pegasus (first place and earning an extra morning slot in Forest School) and to Phoenix and Hydra (second place and earning an extra afternoon slot in Forest School).

Stay tuned for details of our next TTRS competition in the coming weeks!

A big well done to our individual winners since last month's issue: Evie, Rhaele, Drew, Bobby, Sophie, Freya, Kiara, Josh, Harrison, Michael, Katie, Harriet, Vinisha, Venika, Charlotte, Erin, Isaac, Anna, Pietro, Rayn, Clara, Arjun, Alfie, Milo, Alex, Greta, Emma, Marley, Ayleen, Riitaj, Alic, Lukas, Teddy, Enzo and Amelia. Well done to all of you!

This month also brings a fresh challenge for some of our budding Y6 mathematicians, as they take on other local primary schools in the Junior Maths Challenge at Tonbridge School. Find out how they got on in next month's newsletter!

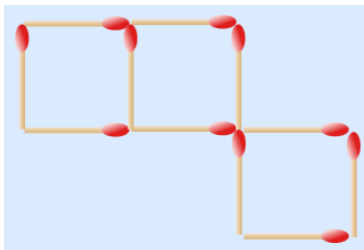


**UK Maths Trust**

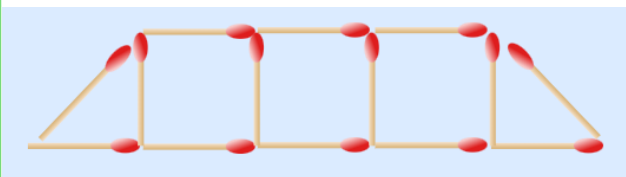


## Puzzle Time!

1) In this diagram 11 sticks make 3 squares. Your challenge is to move 3 sticks to show only 2 squares.



2) This diagram shows 3 squares and 2 triangles:



Rearrange the sticks to make 5 squares and 6 triangles.

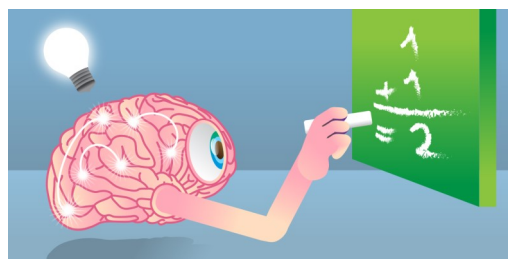
We will reveal the answers to both next month!

## Parents and Carers Corner

Each month we are looking at Jo Boaler's work on maths anxiety in children.

### Never share that you didn't like maths

Try to avoid saying phrases like 'I was never any good at maths at school'; 'I just didn't have a maths brain' or 'I really didn't like maths when I was younger'. Jo Boaler states that phrases like this can have a big impact on children's attitudes to maths and their perceptions of themselves as mathematicians. Interestingly, this is especially true if you are a mother. Researchers found that as soon as mothers share their negative perception of maths with their daughters, their daughters achievement went down.



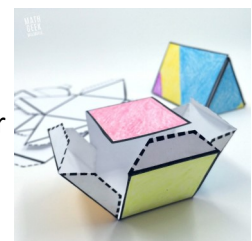
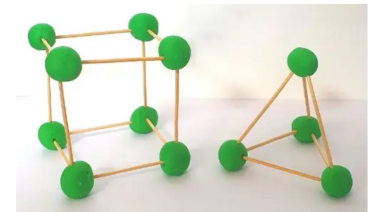
We want to see what maths you get up to at home! Send in pictures of yourself doing maths at home. It could be that you want to do some maths based on the monthly topic (see below), or you might want to come up with your own ideas. Some suggestions might include: making patterns, drawing pictures, using money, cooking and so on. The world is your oyster! Send your photos into [maths@slade.kent.sch.uk](mailto:maths@slade.kent.sch.uk) by Monday 20th May.



**This month's concept is...shape!**

## Shape

- ⇒ Can you make different shapes using ear buds or tooth picks?
- ⇒ Can you draw some different shapes using chalk?
- ⇒ Can you go on a shape hunt around your house? What shapes can you find? Some might be harder to find than others! Can you then sort these shapes based on their properties? What different ways are there to do it?
- ⇒ Can you make different shapes out of play dough?
- ⇒ Can you make some printing art using different shapes? How creative can you be?
- ⇒ Can you make 3D shapes using tooth picks and plasticine?
- ⇒ Can you look in nature and find different shapes?
- ⇒ Can you draw a face/house/person etc. only using shapes?
- ⇒ Can you create a 3D shape by creating a net?
- ⇒ Can you play the yes/no game by asking questions about properties of shapes?
- ⇒ Can you go on a hunt to see where you can see parallel (lines that never meet) or perpendicular lines (lines that meet at  $90^\circ$ )?



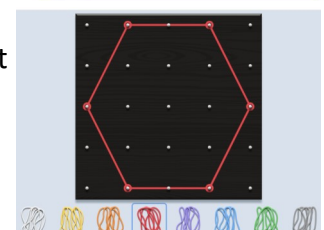
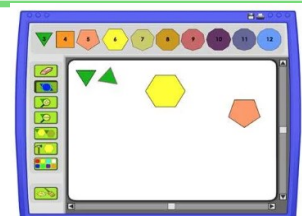
## Maths Websites of the Month

There's two different maths websites we're recommending this month. The first allows you to create your own tessellation patterns!

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

The second website lets you create different shapes using a geo board! What different shapes can you make using the digital elastic bands!




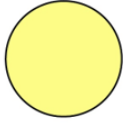




<https://apps.mathlearningcenter.org/geoboard/>



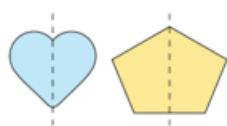

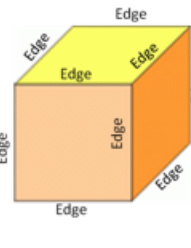































































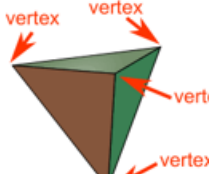

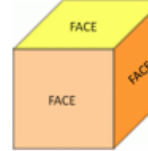
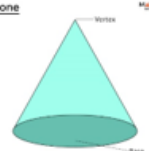
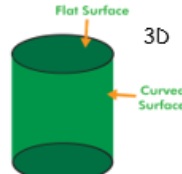

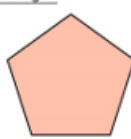

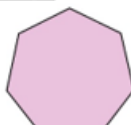
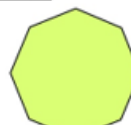
## Shape vocabulary


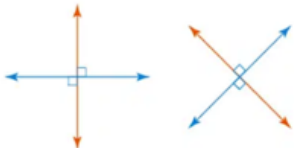

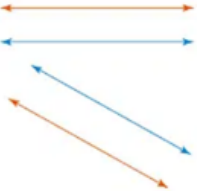
There are lots of different words that we have to know when we learn about shape. Below are the words each year group is expected to know and understand! Can you use them to help you do some of the activities on the previous page?

Year 1







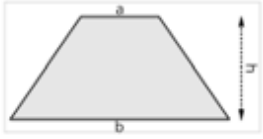


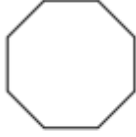

<b>Square</b> 	<b>Rectangle</b> 	<b>Triangle</b> 	<b>Circle</b> 
<b>Cube</b> 	 <b>Cuboid</b>	<b>Pyramid</b> 	<b>Sphere</b> 

Year 2

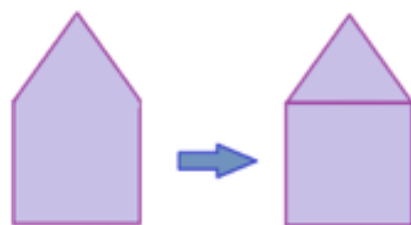
<p><b>Symmetry</b> - A shape or object that is the same on both sides</p> <p><small>Symmetry: Examples</small></p> 	<p><b>Polygons</b> - Any 2D shape with straight sides that are fully closed.</p> 																											
<p><b>Edges (sides)</b> - The lines of a 2D or 3D shape</p> 	<p><b>Non-polygons</b> - Any shape that does not have straight sides that are fully closed.</p> <table border="1"> <thead> <tr> <th>Polygon</th> <th>Not a Polygon</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>		Polygon	Not a Polygon																								
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<p><b>Vertex</b> - The point where lines of a 2D or 3D shape meet</p> 	<p><b>Prism</b> - A 3D shape which has both ends the same, and is the exact same shape throughout the shape.</p> 																											
<p><b>Faces</b> - The flat surfaces of a 3D shape</p> 	<p><b>Cone</b> - A 3D shape that has a circular base that narrows to a point at the other end.</p> 																											
<p><b>Surfaces</b> - The flat or curved surfaces of a shape</p> 	<p><b>Oval</b></p> 	<p><b>Pentagon</b></p> 																										
<p><b>Hexagon</b></p> 	<p><b>Heptagon</b></p> 	<p><b>Octagon</b></p> 																										

<b>Horizontal</b> - A straight line that goes from left to right or right to left  <p>Vertical      Horizontal</p>	<b>Perpendicular</b> - Straight lines that intersect at a right angle 
<b>Vertical</b> - A straight line that goes from top to bottom or bottom to top  <p>Vertical      Horizontal</p>	<b>Parallel</b> - Lines that stay the same distance from each other and never meet 

## Year 4

<b>Rectilinear shape</b> - A 2D shape that has straight sides with all sides meeting at right angles. 	<b>Isosceles triangle</b> - A triangle that has 2 pairs of equal sides and angles 
<b>Quadrilateral</b> - Any shape that has 4 sides 	<b>Equilateral triangle</b> A triangle that has 3 equal sides and angles 
<b>Rhombus</b> - A 4-sided shape that has 4 sides the same length, 2 pairs of parallel lines and 2 pairs of parallel lines. It has no right angles. 	<b>Scalene triangle</b> - A triangle that has 3 different sides and angles 
<b>Trapezium</b> - A 4-sided shape that has 1 pair of parallel lines. As this is its only property, trapeziums can look very different to each other. 	<b>Right angle triangle</b> - A triangle that has a right angle 
<b>Parallelogram</b> - A 4-sided shape with 2 pairs of equal sides, 2 pairs of parallel lines and 2-pairs of equal angles. It has no right angles. 	<b>Regular</b> - A shape that has equal sides and equal angles 
	<b>Irregular</b> - A shape that has different length sides and different sized angles 

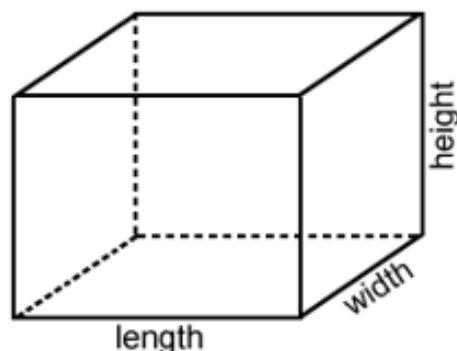
**Composite shape** - An irregular shape that is made by combining regular shapes together



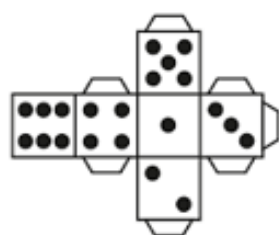
**Dissection** - Splitting shape into smaller parts



**Dimensions** - The measurement of length, width and height of anything.



**Nets** - A pattern you can cut and fold to make a model of a solid 3D shape



**Circumference** The perimeter of a circle

**Radius** - The distance in a circle from the centre point to the circumference

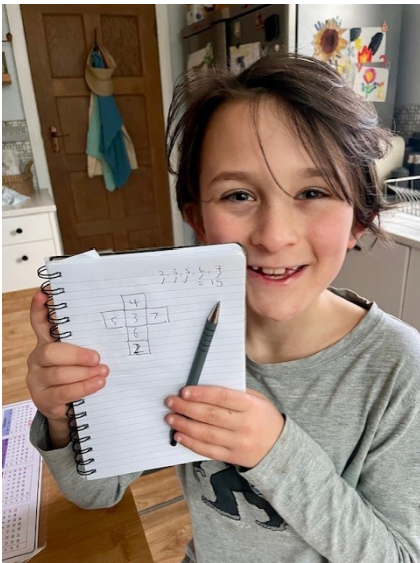
**Diameter** - The distance from one point of a circle's circumference to another, passing through the centre point





## Maths at Home

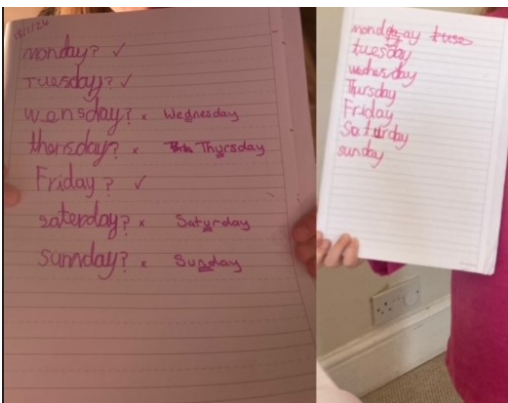
There were lots of children who were busy working on their maths skills after last month's newsletter. Well done to everyone who sent in their photos. We hope you enjoy looking at the fantastic maths they got up to!



Well done to Bodhi (Y4) who found a solution to last month's puzzle! Great job!



Well done to Artemis (Y3) who has done some fantastic work with fractions and sweets and on analogue time. She also found a solution to the puzzle!



We love the work that Lily (Y2) has been up to. She has been working hard on learning how to spell the days of the week (we love the progress you are making!) and completing different addition and subtraction sums.



Arjun (Y3) has been working hard with his sweets! He has made bar charts, shown fractions, completed patterns and so much more. Well done, Arjun!

