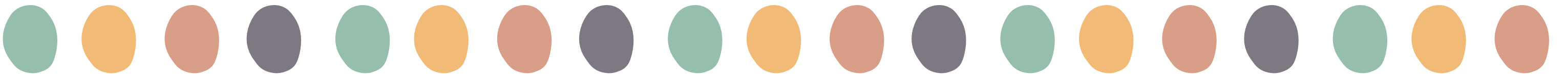


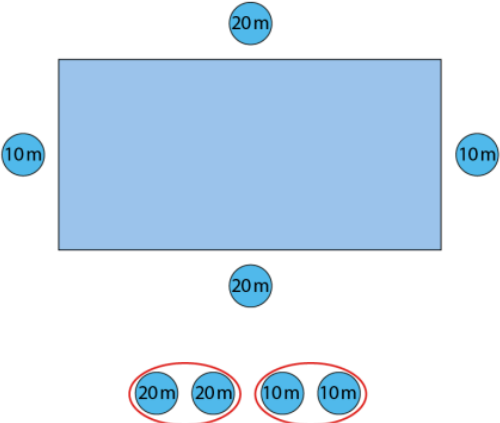
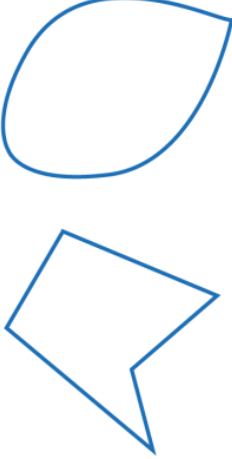
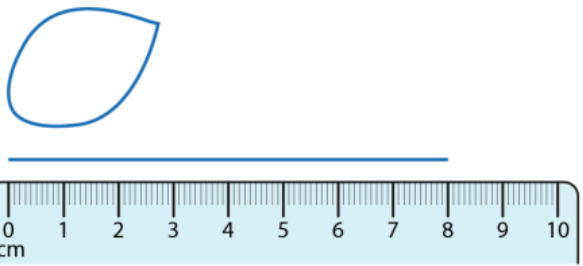
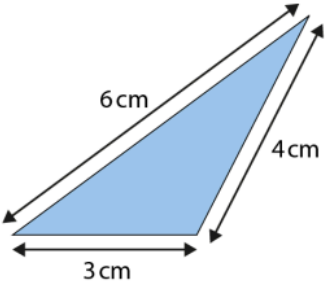
Y4 - Overview

	Autumn 1			Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2	
Unit	1	2	3		4	5	6	7	8	9	10	11	12

- Number and place value
- Number facts
- Addition and subtraction
- Multiplication and division
- Fractions
- Geometry
- Other

Unit 3	Perimeter (2 weeks)														
Ready to progress	4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.														
NCETM documents	TEACHING POINTS 1 -3 https://www.ncetm.org.uk/media/dbwkd5mv/ncetm_spine2_segment16_y4.pdf#page=4														
Small steps	1 A regular polygon has sides that are all the same length and interior angles that are all equal in size 2 Perimeter is the distance around the edge of a two-dimensional shape 3 Different shapes can have the same perimeter 4 Perimeter is measured in units of length and can be found by counting units 5 Perimeter can be calculated by adding together the side lengths of a 2D shape 6 The perimeter of a rectangle can be calculated by addition and multiplication 7 Unknown side lengths can be calculated from perimeter and known side lengths 8 The perimeter of a regular polygon can be calculated by multiplication 9 The side length of a regular polygon can be calculated by division where the perimeter is known														
Links	<u>Classroom Slides</u> https://www.ncetm.org.uk/media/2a0jcfkc/cp-year-4-unit-3-perimeter.pptx <u>Teacher guide</u> - https://www.ncetm.org.uk/media/dbwkd5mv/ncetm_spine2_segment16_y4.pdf <u>Oak</u> - https://www.thenationalacademy/teachers/programmes/maths-primary-ks2/units/perimeter/lessons) <u>Whiterose</u> - https://whiteroseeducation.com/resources?year=year-4-new&subject=maths#filters														
Reasoning	Top Tips Put these amounts in order starting with the largest: - Half of three litres - Quarter of two litres 300 ml - Explain your thinking using your understanding of litres and millilitres and comparing fractional quantities. Position the Symbols Place the correct symbol between each of the following amounts: > or < £23.61 2326p 2623p Explain how you decided using your understanding of the relationship between pounds and pence. Undoing Imran's swimming lesson lasts 50 minutes and it takes him 15 minutes to get changed before the lesson. If the lesson finishes at 6:15pm, what time does Imran need to arrive? Use a number line or clock to help you solve it by working backwards. Write More Statements One battery weighs the same as 60 paperclips. One pencil sharpener weighs the same as 20 paperclips. How many pencil sharpeners weigh the same as a battery? Write other statements you can make using this information. Possibilities Adult tickets cost £8. Children's tickets cost £4. How many different combinations of adult and children's tickets could you buy for exactly £100? Can you find more than one possibility? Use your understanding of multiplication and money to explain. Always, Sometimes, Never If you double the area of a rectangle, you double the perimeter. Is this always, sometimes, or never true? Explain your reasoning with examples or diagrams. Working Backwards Put these times of the day in order starting with the earliest: A: Quarter to four in the afternoon B: 07:56 C: Six minutes to nine in the evening D: 14:36 Explain how you compared these times and what strategies you used. What Do You Notice? What do you notice about these times? 1:00pm = 13:00 2:00pm = 14:00 Use your knowledge of 12- and 24-hour time to describe the pattern. How could you use this to convert between the two systems for any time?														



Unit 3	Perimeter (2 weeks)																				
Problem solving	CLICK HERE																				
Glossary	- Regular polygon - A polygon where all angles are equal and all side lengths are equal. - Irregular polygon - A polygon where not all angles are equal and / or not all side lengths are equal. - Interior angles - Interior angles are the angles formed inside a polygon by two of its sides. - Perimeter - The distance around a 2D shape. - Polygon - A polygon is a 2D shape made up of 3 or more straight lines. - Perimeter - The distance around a two-dimensional shape. - Unit - The unit of one of something that defines the 'one' you are counting in. - Double - Have two of something. - Regular - A regular polygon has all sides equal and all angles equal																				
Stem sentences	The distance around the edge of the _____ is called its perimeter. The perimeter of the _____ is _____ cm. Perimeter is measured in units of length. You can use addition to find the perimeter of the shape. The perimeter of a rectangle is equal to two times the length of the long side plus two times the length of the short side. The perimeter of a rectangle is equal to two times the length of the long side plus two times the length of the short side. The perimeter of a square is four times the length of one of the sides. The perimeter of an equilateral triangle is three times the length of one of the side. To find the perimeter of a regular polygon, you multiply the length of one of the sides by the number of sides. If you know the perimeter of a regular polygon you divide it by the number of sides to find the length of one of its sides																				
Representations	The caterpillar walks around the edge of the leaf.'  'The distance around the edge of the leaf is its perimeter.' Leaf 2: 'Now the caterpillar walks around this leaf.'  'The distance around the edge of the leaf is its perimeter.' Using multiplication to find the perimeter:  $P = 2 \times 20\text{ m} + 2 \times 10\text{ m}$ $= 40\text{ m} + 20\text{ m}$ $= 60\text{ m}$ leaf 1  leaf 2  Different shapes with the same perimeter:  Measuring leaf 1:  Standard units of length: <table><thead><tr><th>Unit</th><th>Abbreviation</th></tr></thead><tbody><tr><td>millimetre</td><td>mm</td></tr><tr><td>centimetre</td><td>cm</td></tr><tr><td>metre</td><td>m</td></tr><tr><td>kilometre</td><td>km</td></tr></tbody></table> 'What is the perimeter of this triangle?'  perimeter = 6 cm + 4 cm + 3 cm = 13 cm 'We can write the side-lengths in any order.' 6 cm + 4 cm + 3 cm = 13 cm 6 cm + 3 cm + 4 cm = 13 cm 4 cm + 6 cm + 3 cm = 13 cm 4 cm + 3 cm + 6 cm = 13 cm 3 cm + 4 cm + 6 cm = 13 cm 3 cm + 6 cm + 4 cm = 13 cm Perimeters of regular polygons: <table><thead><tr><th>Number of sides</th><th>Perimeter</th></tr></thead><tbody><tr><td>3</td><td>length of one side $\times$ 3</td></tr><tr><td>4</td><td>length of one side $\times$ 4</td></tr><tr><td>5</td><td>length of one side $\times$ </td></tr><tr><td>...</td><td>...</td></tr></tbody></table>	Unit	Abbreviation	millimetre	mm	centimetre	cm	metre	m	kilometre	km	Number of sides	Perimeter	3	length of one side $\times$ 3	4	length of one side $\times$ 4	5	length of one side $\times$	...	...
Unit	Abbreviation																				
millimetre	mm																				
centimetre	cm																				
metre	m																				
kilometre	km																				
Number of sides	Perimeter																				
3	length of one side $\times$ 3																				
4	length of one side $\times$ 4																				
5	length of one side $\times$																				
...	...																				