



Year: Year 5

Subject: Maths

Title: Perimeter and Area

What key knowledge do I need to have before this unit?

- I understand that a square has 4 equal sides
- I understand that rectangles have opposite equal sides
 - I know the number of sides of polygons up to 8
- I know how to double integers and my times tables up to 12
- I know that distance can be measured in mm, cm, m and km and can convert between these

Key outcomes:

What I need to know by the end of this unit of work:

- I can find the perimeter of rectangles
- I can find the perimeter of rectilinear shapes
- I can find the perimeter of polygons
- I can calculate the area of rectangles
- I can calculate the area of compound shapes
- I can estimate area

National Curriculum Links:	Key Vocabulary:	Definition:
Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Perimeter	The total distance around the edge of a two-dimensional shape or figure. It is calculated by adding up the lengths of all the sides of the shape
Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm ²) and square metres (m ²), and estimate the area of irregular shapes	Area	The amount of space inside a two-dimensional shape or figure, measured in square units
	Composite	A shape that is made up of two or more simpler shapes. These shapes can be polygons or other figures combined together
	Rectilinear	A term describing shapes or figures that have straight sides and right angles
	Polygon	A closed, two-dimensional shape with straight sides. The sides must not curve and must connect to form a complete boundary.
	Regular	A polygon in which all sides and angles are equal
	Estimate	A rough calculation or approximation of a value. It is not an exact measurement, but a close approximation based on available information.

Measurement.

Using measures

Year 1	Year 2	Year 3	Year 4	Year 5
<ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume time measure and begin to record the following: <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) 	<ul style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$ 	<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<ul style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] estimate, compare and calculate different measures 	<ul style="list-style-type: none"> convert between different units of metric measure understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling

Perimeter, area, volume

Year 1	Year 2	Year 3	Year 4	Year 5
		<ul style="list-style-type: none"> measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares 	<ul style="list-style-type: none"> measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]