

# Maths Curriculum Progression

## Measurement (length/height, perimeter, area and mass/weight)

### Length / height

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Begin to talk about the shapes of everyday objects, e.g. 'round' and 'tall'	<b>ELG: Use everyday language to talk about size and distance</b>	Measure and begin to record lengths and heights, <i>using non-standard and then manageable standard units (m and cm) within children's range of counting competence</i>	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit using rulers	Measure, add and subtract lengths (m/cm/mm)	Estimate and calculate lengths	<i>Use, read and write standard units of length to a suitable degree of accuracy</i>	Use, read and write standard units of length using decimal notation to three decimal places
	Order two or three items by length or height <b>ELG: Use everyday language to compare quantities and objects and to solve problems</b>	Compare and describe lengths and heights (for example, long/short, longer/shorter, tall/short, double/half)	Compare and order lengths and record the results using $>$ , $<$ and $=$	Compare lengths (m/cm/mm)	Compare lengths	Understand and use approximate equivalences between metric and common imperial units such as inches	

### Perimeter

				<p><i>Understand that perimeter is a measure of distance around the boundary of a shape</i></p> <p>Measure the perimeter of simple 2-D shapes</p>	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Recognise that shapes with the same areas can have different perimeters and vice versa
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### Area

					<p><i>Understand that area is a measure of surface within a given boundary</i></p> <p>Find the area of rectilinear shapes by counting squares</p>	<p>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes</p>	<p>Calculate the area of parallelograms and triangles</p> <p>Recognise when it is possible to use the formulae for area and volume of shapes</p>
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### Mass

	<p><b>ELG: Use everyday language to talk about weight</b></p>	<p>Measure and begin to record mass/weight, <i>using non-standard and then standard units (kg and g) within children's range of counting competence</i></p>	<p>Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales</p>	<p>Measure, add and subtract mass (kg/g)</p>	<p>Estimate and calculate mass</p>	<p><i>Use, read and write standard units of mass to a suitable degree of accuracy</i></p>	<p>Use, read and write standard units of mass using decimal notation to three decimal places</p>
	<p>Order two items by weight</p> <p><b>ELG: Use everyday language to compare quantities and objects and to solve problems</b></p>	<p>Compare and describe mass/weight (for example, heavy/light, heavier than, lighter than)</p>	<p>Compare and order mass and record the results using &gt;, &lt; and =</p>	<p>Compare mass (kg/g)</p>	<p>Compare mass</p>	<p>Understand and use approximate equivalences between metric and common imperial units such as pounds</p>	

## Measurement (capacity, volume, temperature and conversion)

### Capacity / volume

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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	<b>ELG: Use everyday language to talk about capacity</b>	Measure and begin to record capacity and volume <i>using non-standard and then standard units (litres and ml) within children's range of counting competence</i>	Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels	Measure, add and subtract volume/capacity (l/ml)	Estimate and calculate volume/capacity	Estimate ( <i>and calculate</i> ) volume (for example, using 1 cm <sup>3</sup> blocks to build cuboids (including cubes)) and capacity (for example, using water)  <i>Understand the difference between liquid volume, including capacity and solid volume</i>	Use, read and write standard units of volume using decimal notation to three decimal places  Calculate and estimate volume of cubes and cuboids using standard units, including cubic centimetres (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ) and extending to other units (for example, mm <sup>3</sup> and km <sup>3</sup> )
	Order two items by capacity <b>ELG: Use everyday language to compare quantities and objects and to solve problems</b>	Compare and describe capacity and volume (for example, full/empty, more than, less than, half, half full, quarter)	Compare and order volume/capacity and record the results using >, < and =	Compare volume/capacity (l/ml)	Compare volume/capacity	Understand and use approximate equivalences between metric and common imperial units such as pints	Compare volume of cubes and cuboids using standard units, including cubic centimetres (cm <sup>3</sup> ) and cubic metres (m <sup>3</sup> ) and extending to other units (for example, mm <sup>3</sup> and km <sup>3</sup> )
<b>Temperature</b>							
			Choose and use appropriate standard units to estimate and measure temperature to the nearest degree (°C) using thermometers	<i>Continue to estimate and measure temperature to the nearest degree (°C) using thermometers</i>	<i>Order temperatures including those below 0°C</i>	<i>Continue to order temperatures including those below 0°C</i>	<i>Calculate differences in temperature, including those that involve a positive and negative temperature</i>
<b>Conversion</b>							

					Convert between different units of measure (e.g. kilometre to metre; hour to minute)	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; millimetre; gram and kilogram; litre and millilitre)	Convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places
							Convert between miles and kilometres

## Measurement (Time)

### Time

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Use everyday language related to time <b>ELG: Use everyday language to talk about time</b>	Recognise and use language relating to dates, including days of the week, weeks, months and years					
	Measure short periods of time in simple ways  Talk about time in order and sequence of familiar events	Compare and describe time (for example, quicker, slower, earlier, later)  Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening)	Compare and sequence intervals of time	Record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	Convert between different units of time, e.g. hour to minute	<i>Convert between units of time in a problem solving context</i>	

		Measure and begin to record time (hours, minutes, seconds)	Know the number of minutes in an hour and the number of hours in a day	Know the number of seconds in a minute, and the number of days in each month, year and leap year			
		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks  Estimate and read time with increasing accuracy to the nearest minute	Read, write and convert time between analogue and digital 12 and 24-hour clocks	<i>Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks</i>	Use, read and write standard units of time
				Compare durations of events (for example to calculate the time taken by particular events or tasks)			

### Measurement (money and solving problems)

#### Money

Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Begin to use everyday language related to money  <b>ELG: Use everyday language to talk about money</b>	Recognise and know the value of different denominations of coins and notes	Recognise and use symbols for pounds (£) and pence (p)	<i>Continue to recognise and use symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds and pence</i>	<i>Write amounts of money using decimal notation</i>		

	<b>ELG: Use everyday language to compare quantities and objects and to solve problems</b>		Combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money	<i>Recognise that ten 10p coins are equivalent to £1 and that each coin is <math>\frac{10}{100}</math> of £1</i>	<i>Recognise that one hundred 1p coins are equivalent to £1 and that each coin is <math>\frac{1}{100}</math> of £1</i>		
	Talk about money by comparing different coins (2p = 2 lots of 1p) and choosing correct coins to pay for items during role play		Add and subtract money of the same unit, including giving change	Add and subtract amounts of money to give change, using both £ and p in practical contexts	Estimate, compare and calculate money in pounds and pence		

**Solving problems involving money and measures**

	<b>ELG: Use everyday language to talk about size, weight, capacity, distance, time, and money, and to solve problems</b>	Solve practical problems for: - lengths and heights - mass/weight - capacity and volume - time	Solve simple problems in a practical context involving addition and subtraction of money <i>and measures (including time)</i>	<i>Solve problems involving money and measures and simple problems involving passage of time</i>	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days <i>and problems involving money and measures</i>	Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation including scaling Solve problems involving converting between units of time	Solve problems involving the calculation and conversion of units of measure ( <i>including money and time</i> ), using decimal notation up to three decimal places where appropriate
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**Vocabulary**

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