

## Subject Specific-Skills: Age-related expectations in maths – measurement

Year	Comparing and estimating	Measuring and counting	Telling the time	Converting
<b>1</b>	<p>compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> <li>* lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half]</li> <li>* mass/weight [e.g. heavy/light, heavier than, lighter than]</li> <li>* capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter]</li> <li>* time [e.g. quicker, slower, earlier, later]</li> <li>* sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> </ul>	<p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> <li>• lengths and heights</li> <li>• mass/weight</li> <li>• capacity and volume</li> <li>• time (hours, minutes, seconds)</li> <li>• Recognise and know the value of different denominations of coins and notes</li> </ul>	<ul style="list-style-type: none"> <li>• Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</li> <li>• Recognise and use language relating to dates, including days of the week, weeks, months and years</li> </ul>	
<b>2</b>	<ul style="list-style-type: none"> <li>• Compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> <li>• Compare and sequence intervals of time</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>• Find different combinations of coins that equal the same amounts of money</li> <li>• Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> <li>• Choose and use appropriate standard units to estimate and measure <b>length/height</b> in any direction (m/cm); <b>mass</b> (kg/g); <b>temperature</b> (°C); <b>capacity</b> (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Know the number of minutes in an hour and the number of hours in a day. (appears also in Converting)</li> </ul>	<ul style="list-style-type: none"> <li>• Know the number of minutes in an hour and the number of hours in a day. (appears also in Telling the Time)</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>• Compare durations of events, for example to calculate the</li> </ul>	<ul style="list-style-type: none"> <li>• Measure, compare, add and subtract: <b>lengths</b> (m/cm/mm);</li> </ul>	<ul style="list-style-type: none"> <li>• Tell and write the time from an analogue clock, including</li> </ul>	<ul style="list-style-type: none"> <li>• Know the number of seconds in a minute and the number of</li> </ul>

	<p>time taken by particular events or tasks</p> <ul style="list-style-type: none"> <li>estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Telling the Time)</li> </ul>	<p><b>mass</b> (kg/g); <b>volume/capacity</b> (l/ml)</p> <ul style="list-style-type: none"> <li>Measure the <b>perimeter</b> of simple 2-D shapes</li> <li>Add and subtract amounts of <b>money</b> to give change, using both £ and p in practical contexts</li> </ul>	<p>using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</p> <ul style="list-style-type: none"> <li>Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Comparing and Estimating)</li> </ul>	<p>days in each month, year and leap year</p>
4	<ul style="list-style-type: none"> <li>Estimate, compare and calculate different measures, including money in pounds and pence (also included in Measuring)</li> </ul>	<ul style="list-style-type: none"> <li>Estimate, compare and calculate <b>different measures</b>, including <b>money in pounds and pence</b> (appears also in Comparing)</li> <li>Measure and calculate the <b>perimeter</b> of a rectilinear figure (including squares) in centimetres and metres</li> <li>Find the area of rectilinear shapes by counting squares</li> </ul>	<ul style="list-style-type: none"> <li>Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting)</li> <li>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting)</li> </ul>	<ul style="list-style-type: none"> <li>Convert between different units of measure (e.g. kilometre to metre; hour to minute)</li> <li>Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting)</li> <li>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time)</li> </ul>
5	<ul style="list-style-type: none"> <li>Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes (also included in measuring)</li> <li>Estimate volume (e.g. using 1 cm<sup>3</sup> blocks to build cubes and cuboids) and capacity (e.g. using water)</li> </ul>	<ul style="list-style-type: none"> <li>Use all four operations to solve problems involving measure (e.g. <b>length, mass, volume, money</b>) using decimal notation including scaling.</li> <li>Measure and calculate the <b>perimeter</b> of composite rectilinear shapes in centimetres and metres</li> <li>Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes</li> </ul> <p><i>Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed</i></p>	<ul style="list-style-type: none"> <li>Solve problems involving converting between units of time</li> </ul>	

		<sup>3</sup> (copied from Multiplication and Division)		
6	<ul style="list-style-type: none"> <li>Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>), and extending to other units such as <math>\text{mm}^3</math> and <math>\text{km}^3</math>.</li> </ul>	<ul style="list-style-type: none"> <li>Calculate the area of parallelograms and triangles</li> <li>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>), and extending to other units [e.g. <math>\text{mm}^3</math> and <math>\text{km}^3</math>].</li> <li>Recognise when it is possible to use formulae for area and volume of shapes</li> </ul>		<ul style="list-style-type: none"> <li>Use, read, write and 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 up to three decimal places</li> <li>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Measuring and Calculating)</li> <li>Convert between miles and kilometres.</li> </ul>