

	ELEMENT	BY THE END OF Y4: LEARNERS WILL BE ABLE TO:
Developing numerical Reasoning	<b>Identify processes and connections</b>	<ul style="list-style-type: none"> <li>-transfer mathematical skills to a variety of contexts and everyday situations</li> <li>-identify the appropriate steps and information needed to complete the task or reach a solution</li> <li>-select appropriate mathematics and techniques to use</li> <li>-select and use suitable instruments and units of measurement</li> </ul>
	<b>Represent and communicate</b>	<ul style="list-style-type: none"> <li>-explain results and procedures clearly using mathematical language</li> <li>-refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready</li> <li>-use appropriate notation, symbols and units of Measurement</li> <li>-select and construct appropriate charts, diagrams and graphs with</li> </ul>
	<b>Review</b>	<ul style="list-style-type: none"> <li>-select from an increasing range of checking strategies to decide if answers are reasonable</li> <li>-interpret answers within the context of the problem and consider whether answers, including calculator displays, are sensible</li> </ul>
Using number skills	<b>Use number facts and relationships</b>	<ul style="list-style-type: none"> <li>-read and write numbers to 10 000</li> <li>-compare and estimate with numbers up to 1 000</li> <li>-use a range of mental strategies to recall multiplication tables for 2,</li> </ul>
	<b>Fractions, decimals, percentages and ratio</b>	<ul style="list-style-type: none"> <li>-halve 3-digit numbers in the context of number, money and measures</li> <li>-find fractional quantities using known table facts, <i>e.g. 1/6 of 30cm</i></li> <li>-recognise fractions that are several parts of a whole, <i>e.g. 2/3, 3/10</i></li> </ul>
	<b>Calculate using mental and written methods</b>	<ul style="list-style-type: none"> <li>-find differences within 1 000</li> <li>-add a 2-digit number to, and subtract a 2-digit number from, a 3-digit number using an appropriate written method</li> </ul>
	<b>Estimate and</b>	<ul style="list-style-type: none"> <li>-check answers using inverse operations</li> </ul>
	<b>Money</b>	<ul style="list-style-type: none"> <li>-use money to pay for items up to £10 and calculate the change</li> <li>-order and compare items up to £100</li> <li>-add and subtract decimal numbers in the context of money (total</li> </ul>
Using measuring skills	<b>Length, weight (mass) and capacity</b>	<ul style="list-style-type: none"> <li>-measure on a ruler to the nearest mm and record using a mix of units, <i>e.g. 1cm 3mm</i></li> <li>-use scales to weigh objects to the nearest 5g, 10g, 25g or 100g (divisions marked)</li> </ul>
	<b>Time</b>	<ul style="list-style-type: none"> <li>-tell the time to the nearest minute on analogue clocks</li> <li>-read hours and minutes on a 24-hour digital clock</li> </ul>
	<b>Temperature</b>	<ul style="list-style-type: none"> <li>-take temperature readings using simple labelled thermometers and</li> </ul>
	<b>Area and volume Angle</b>	
Using data skills	<b>Collect and record data Present and analyse data Interpret results</b>	<ul style="list-style-type: none"> <li>-represent data using: <ul style="list-style-type: none"> <li>&gt;simple lists, tally charts, tables and diagrams</li> <li>&gt;bar and bar line graphs labelled in 2s, 5s and 10s</li> <li>&gt;pictograms where one unit represents more than one object using simple key</li> <li>&gt;Venn and Carroll diagrams</li> </ul> </li> <li>-extract and interpret information from simple charts, timetables, diagrams and graphs.</li> </ul>

	ELEMENT	BY THE END OF Y6: LEARNERS WILL BE ABLE TO:
Developing numerical reasoning	Identify processes and connections	<ul style="list-style-type: none"> <li>transfer mathematical skills to a variety of contexts and everyday situations</li> <li>identify the appropriate steps and information needed to complete the task or reach a solution</li> <li>select appropriate mathematics and techniques to use</li> <li>select and use suitable instruments and units of measurement</li> <li>choose an appropriate mental or written strategy and know when it is appropriate to use a calculator</li> <li>estimate and visualise size when measuring and use the correct units</li> </ul>
	Represent and communicate	<ul style="list-style-type: none"> <li>explain results and procedures clearly using mathematical language</li> <li>refine informal methods of recording written calculations, moving to formal methods of calculation when developmentally ready</li> <li>use appropriate notation, symbols and units of measurement</li> <li>select and construct appropriate charts, diagrams and graphs with suitable scales</li> </ul>
	Review	<ul style="list-style-type: none"> <li>select from an increasing range of checking strategies to decide if answers are reasonable</li> <li>interpret answers within the context of the problem and consider whether answers, including calculator displays, are sensible</li> <li>draw conclusions from data and recognise that some conclusions may be misleading.</li> </ul>
Using number skills	Use number facts and relationships	<ul style="list-style-type: none"> <li>read and write numbers to 1 million and to 3-place decimals in the context of measures</li> <li>use a range of mental strategies to recall multiplication tables up to <math>10 \times 10</math> and use to solve division problems</li> <li>multiply numbers and decimals by a multiple of 10, e.g. <math>15 \times 30</math>, <math>1.4\text{cm} \times 20</math></li> </ul>
	Fractions, decimals, percentages and ratio	<ul style="list-style-type: none"> <li>use understanding of simple fraction, decimal and percentage equivalences, e.g. <i>find 25% of 60cm and know that this is equivalent to 1 of 60cm</i></li> <li>calculate simple percentage quantities based on 10%, e.g. 20%, 5%, 15%</li> <li>use simple ratio and proportion, e.g. <i>mixing paint</i></li> </ul>
	Calculate using mental and written methods	<ul style="list-style-type: none"> <li>add and subtract numbers using whole numbers and decimals when working with measures</li> <li>multiply 2- and 3-digit numbers by a 2-digit number</li> <li>divide 3-digit numbers by a 2-digit number</li> </ul>
	Estimate and check	<ul style="list-style-type: none"> <li>check answers using inverse operations</li> <li>estimate by rounding to the nearest 10, 100, 1 000 or whole number</li> </ul>
	Money	<ul style="list-style-type: none"> <li>use the terms profit and loss in buying and selling activities and make simple calculations for this</li> <li>understand the costs, benefits and risks of using bank accounts</li> </ul>
Using measuring skills	Length, weight (mass) and capacity	<ul style="list-style-type: none"> <li>use a range of scales and measuring instruments, e.g. <i>scales where there are 4 equal divisions between major units</i></li> <li>record measurements in different ways, e.g. <math>2.3\text{kg} = 2\text{kg } 300\text{g}</math></li> <li>use the language of imperial units in daily use, e.g. <i>miles, pints</i></li> </ul>
	Time	<ul style="list-style-type: none"> <li>use and interpret timetables and schedules to plan events and activities and make calculations as part of the planning process</li> <li>estimate how long a journey takes</li> <li>use stopwatches to time events in minutes and seconds to the nearest tenth of a second</li> </ul>
	Temperature	<ul style="list-style-type: none"> <li>measure and record temperatures involving positive and negative readings</li> <li>calculate temperature differences, including those involving temperature rise and fall across <math>0^{\circ}\text{C}</math></li> </ul>
	Area and volume Angle	
Using data skills	Collect and record data Present and analyse data Interpret results	<ul style="list-style-type: none"> <li>represent data using: <ul style="list-style-type: none"> <li>lists, tally charts, tables and diagrams, frequency tables</li> <li>bar charts, grouped data charts, line graphs, conversion graphs</li> </ul> </li> <li>extract and interpret information from an increasing range of diagrams, timetables and graphs, including simple pie charts</li> <li>use averages and range to describe a data set.</li> </ul>