





Maths topic covered	TS	Objectives covered
		<ul style="list-style-type: none"> <li>Decide whether to round up or down after division</li> <li>Choose mental, written or calculator methods to multiply or divide numbers</li> </ul>
Fractions, decimals, percentages, ratio and proportion	<b>TS5</b>	<ul style="list-style-type: none"> <li>Compare fractions such as <math>\frac{2}{3}</math>, <math>\frac{3}{4}</math> and <math>\frac{5}{6}</math> by converting them to fractions with the same denominator</li> <li>Key in fractions on a calculator, e.g. halves, quarters, tenths, hundredths, recognise the equivalent decimal form and use this to compare fractions, e.g. comparing <math>\frac{75}{100}</math>, 0.72 and <math>\frac{1}{5}</math></li> <li>Solve problems involving percentages, e.g. find discounted prices</li> <li>Express one quantity as a percentage of another (e.g. express £400 as a percentage of £1000)</li> <li>Use ratio and proportion to solve simple problems, e.g. there are 30 children; there are 3 boys for every 2 girls, how many boys are there?</li> </ul>
Shape: Co-ordinates, translation, rotation and transformation of shapes on grids	<b>TS_S2</b>	<ul style="list-style-type: none"> <li>Read and plot co-ordinates in the first quadrant</li> <li>Use co-ordinates in the first quadrant to draw, locate and complete shapes that meet given properties</li> <li>Visualise and draw on grids of different types where a shape will be after reflection, after translation, or after rotation through 90 or 180 degrees about its centre or about one of its vertices</li> </ul>
Reasoning and explaining	<b>TS6</b>	<ul style="list-style-type: none"> <li>Make general statements about patterns and relationships</li> <li>Describe a relationship in words, and then express it in a formula using letters as symbols, e.g. stamps cost 32p each, so n stamps cost 32n</li> <li>Substitute numbers for letters in simple formulae</li> </ul>
Handling data: Probability	<b>TS_D3</b>	<ul style="list-style-type: none"> <li>Describe and predict outcomes from data using the language of chance and likelihood</li> </ul>
Mental and written addition and subtraction	<b>TS7/7a</b>	<ul style="list-style-type: none"> <li>Derive quickly pairs of decimals with a total of 10 e.g. 7.8 and 2.2 and with a total of 1, e.g. 0.78 + 0.22</li> <li>Use strategies used to add/subtract pairs of whole two-digit numbers to add/subtract two-digit numbers with one decimal place</li> <li>Add/subtract near multiples of one, e.g. <math>5.6 + 2.9</math>, <math>13.5 - 2.1</math></li> <li>Approximate first before calculating</li> <li>Use vertical addition to add several whole numbers with different numbers of digits</li> <li>Use vertical addition to add two numbers with different numbers of decimal places</li> </ul>
Mental and written addition and subtraction	<b>TS7/7a</b>	<ul style="list-style-type: none"> <li>Approximate first before calculating</li> <li>Use vertical addition to add several whole numbers with different numbers of digits</li> <li>Use vertical addition to add two numbers with different numbers of decimal places</li> <li>Find a difference between decimals with two decimal places by counting up, e.g. <math>3.24 - 2.96</math></li> <li>Find a difference between two numbers with different numbers of decimal places by counting up, e.g. <math>5.24 -</math></li> </ul>



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Using a calculator	<p align="center"><b>TS8</b> =</p>	<p>3.7, 9.4 - 5.78</p> <ul style="list-style-type: none"> <li>Choose mental, written or calculator methods to work out addition and subtraction calculations</li> <li>Approximate first before calculating</li> <li>Interpret a rounding error, e.g. 6.9999999 as 7</li> <li>Read recurring displays e.g. 0.3333333 and know that it represents a third</li> <li>Interpret a decimal answer and decide how to present it, e.g. rounding 3.14258 to 3.14 to give an answer in pounds and pence or metres and centimetres</li> <li>Decide whether to round a decimal answer up or down after division, depending on the context</li> </ul>
Using a calculator  Time: 24-hour clock, calculating time intervals	<p align="center"><b>TS8</b></p> <p align="center"><b>TS_M3</b></p>	<ul style="list-style-type: none"> <li>Approximate first before calculating</li> <li>Interpret a rounding error, e.g. 6.9999999 as 7</li> <li>Read recurring displays e.g. 0.3333333 and know that it represents a third</li> <li>Interpret a decimal answer and decide how to present it, e.g. rounding 3.14258 to 3.14 to give an answer in pounds and pence or metres and centimetres</li> <li>Decide whether to round a decimal answer up or down after division, depending on the context</li> <li>Choose mental, written or calculator methods to multiply or divide numbers</li> <li>Tell the time using digital and analogue clocks using the 24-hour clock</li> <li>Read and use timetables using the 24-hour clock</li> <li>Use a calendar to calculate time intervals</li> <li>Calculate time intervals using digital and analogue times</li> <li>Calculate time intervals in months or years</li> </ul>
Problem solving	<p align="center"><b>TS9</b></p>	<ul style="list-style-type: none"> <li>Use all four operations to solve multi-step word problems</li> <li>Use brackets</li> <li>Recognise and extend numbers sequences or patterns and use this to solve problems</li> <li>Describe a relationship in words, and then express it in a formula using letters as symbols</li> </ul>
Assess and review	<p align="center"><b>TS10</b></p>	<ul style="list-style-type: none"> <li>Multiply and divide any number from 1 to 10000 by 10, 100 or 1000 and understand the effect</li> <li>Multiply and divide decimals by 10 or 100 (answers up to 2 places for division)</li> <li>Recognise the equivalence between the decimal and fraction forms of halves, quarters, eighths, tenths and hundredths</li> <li>Solve problems involving percentages, e.g. find discounted prices</li> <li>Use ratio and proportion to solve simple problems, e.g. there are 30 children; there are 3 boys for every 2 girls, how many boys are there?</li> <li>Use knowledge of place value and multiplication facts to work out multiplication and division involving decimals (e.g. <math>0.8 \times 7</math>, <math>4.8 \div 6</math>)</li> <li>Multiply two-digit numbers by single digit numbers by</li> </ul>



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		partitioning, e.g. $4.7 \times 6 = (4 \times 6) + (0.7 \times 6)$ <ul style="list-style-type: none"> <li>• Use the grid method to multiply three-digit numbers by two-digit numbers including those with one decimal place</li> <li>• Use chunking on the ENL to divide three-digit numbers by two-digit numbers</li> <li>• Use vertical addition to add several whole numbers with different numbers of digits</li> <li>• Use vertical addition to add two numbers with different numbers of decimal places</li> <li>• Subtract numbers with different numbers of decimal places by counting up, e.g. <math>5.24 - 3.7</math>, <math>9.4 - 5.78</math></li> <li>• Approximate first before calculating</li> </ul>

