

England



Supporting the National Curriculum  
2014 with Purple Mash

Mathematics

Each year group contains examples of how the creative tools can be effectively used to support National Curriculum 2014.

Looking at examples from year groups above and below may provide additional ideas.

#### Year 1

Number  
Measurement  
Geometry

#### Year 2

Number  
Measurement  
Geometry  
Statistics

#### Year 3

Number  
Measurement  
Geometry  
Statistics

#### Year 4

Number  
Measurement  
Geometry  
Statistics

#### Year 5

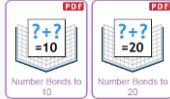
Number  
Measurement  
Geometry  
Statistics

#### Year 6


Number  
Ratio & Proportion  
Algebra  
Measurement  
Geometry  
Statistics

# Year 1

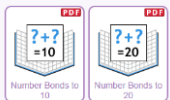
## Number – number and place value


National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</li> <li>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>Given a number, identify one more and one less.</li> <li>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.</li> <li>Read and write numbers from 1 to 20 in numerals and words.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Number bonds 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables – for identifying number patterns when counting in 2s, 5s and 10s	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables</a>
		Mini Mash Number resources	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/mm_resources_numbers">https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/mm_resources_numbers</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>	Digits and words to 20	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers</a>
		Digits and words to 100	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers_100">https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers_100</a>
		Number sequencing	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_sequencing">https://www.purplemash.com/#app/pup/maths_activities_Y1_sequencing</a>
		Number Bonds to 10	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds">https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds</a>
		Number Bonds to 20 – pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20">https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20</a>


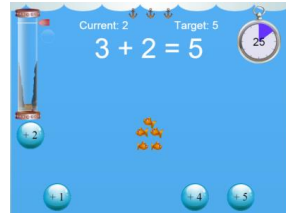
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>	Number Bonds to 20 – spreadsheet activity	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20_2Calc">https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20_2Calc</a>
		1 more than, 1 less than	Various activities at <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value/numbers_place_value_less_more_than">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value/numbers_place_value_less_more_than</a> Mixed questions at <a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_more_and_less">https://www.purplemash.com/#app/pup/maths_activities_Y1_more_and_less</a>
		Counting in 2s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake</a>
		Counting in 2s – Number Sequences	<a href="https://www.purplemash.com/site#app/pup/maths_activities_countingin2s_L1">https://www.purplemash.com/site#app/pup/maths_activities_countingin2s_L1</a>
		Counting in 5s – Number Sequences	<a href="https://www.purplemash.com/site#app/pup/maths_activities_countingin5s_L1">https://www.purplemash.com/site#app/pup/maths_activities_countingin5s_L1</a>
		Counting in 5s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake</a>
		Number Chart Patterns	<a href="https://www.purplemash.com/site#app/pup/maths_activities_numberchart_L1">https://www.purplemash.com/site#app/pup/maths_activities_numberchart_L1</a>
		Number Chart – Missing Numbers	<a href="https://www.purplemash.com/site#app/pup/maths_activities_numberchartmissing_L1">https://www.purplemash.com/site#app/pup/maths_activities_numberchartmissing_L1</a>
		Find the number on the number line	<a href="https://www.purplemash.com/site#app/pup/maths_activities_numberline_L1">https://www.purplemash.com/site#app/pup/maths_activities_numberline_L1</a>
		Missing numbers on the number line	<a href="https://www.purplemash.com/site#app/pup/maths_activities_missingnumberline_L1">https://www.purplemash.com/site#app/pup/maths_activities_missingnumberline_L1</a>
	Use <b>2Quiz</b> to create your own number sequencing and cloze quizzes.	<a href="https://www.purplemash.com/site#app/diys/2quiz">https://www.purplemash.com/site#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: • One less/more than	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>

	<ul style="list-style-type: none"> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> </ul> <p>Times tables</p>		
	Use <b>2Investigate</b> example databases to explore the language of: equal to, more than, less than (fewer), most, least.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides%20and%20resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides and resources/2inv_resources</a>
	Use <b>2Investigate</b> example database <b>Numbers</b> to investigate numbers that are odd/even, divisible by 5 by using the search options in the database to display them pictorially.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides%20and%20resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides and resources/2inv_resources</a>

## Number – addition and subtraction




National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs.</li> <li>• Represent and use number bonds and related subtraction facts within 20.</li> <li>• Add and subtract one-digit and</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
		Number bonds 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
		Mini Mash Number resources	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/m">https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/m</a>



<p>two-digit numbers to 20, including zero.</p> <ul style="list-style-type: none"> <li>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math>.</li> </ul>			<a href="#">m_resources_numbers</a>
	<p>Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_addition_subtraction">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_addition_subtraction</a></p>	Addition and Subtraction to 20	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_addition_subtraction_20">https://www.purplemash.com/#app/pup/maths_activities_Y1_addition_subtraction_20</a>
		Addition and Subtraction to 20 cloze	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_addition_subtraction_cloze">https://www.purplemash.com/#app/pup/maths_activities_Y1_addition_subtraction_cloze</a>
		Addition and Subtraction to 20 pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts_20">https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts_20</a>
	<p><b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity.</p>	<a href="https://www.purplemash.com/#app/diys/2quiz">https://www.purplemash.com/#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<p><b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include:</p> <ul style="list-style-type: none"> <li>One less/more than</li> <li>Odd/eve</li> <li>Comparison</li> <li>Number bond</li> <li>Addition</li> <li>Subtraction</li> <li>Multiplication</li> <li>Division</li> <li>Times tables</li> </ul>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>

	<p><b>Bond Bubbles</b> Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge. . Up to 20, 200 and finally 400.</p>	<p><a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a></p> 	<p>Use Bond Bubbles Challenge A. Use the teacher icon at the top of the screen to change the target number</p>																								
	<p><b>2Calculate Spreadsheets</b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities to set as 2dos. <b>2Calculate Lessons:</b> Shopping Animals Counting Fish On a Plate 10, 20, 30 Magic 12 1p and 2p Going Shopping Special Offers 2Pattern</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> <table border="1" data-bbox="968 602 1325 886"> <tbody> <tr><td>2</td><td>+</td><td>9</td><td>=?</td></tr> <tr><td>5</td><td>+</td><td>7</td><td>=?</td></tr> <tr><td>6</td><td>+</td><td>5</td><td>=?</td></tr> <tr><td>5</td><td>+</td><td>9</td><td>=?</td></tr> <tr><td>8</td><td>+</td><td>4</td><td>=?</td></tr> <tr><td>3</td><td>+</td><td>5</td><td>=?</td></tr> </tbody> </table> <p>Can be accessed by pupils from within 2Calculate tool.</p>	2	+	9	=?	5	+	7	=?	6	+	5	=?	5	+	9	=?	8	+	4	=?	3	+	5	=?	<p><a href="https://www.purplemash.com/#tab/teachers/guides%20and%20resources/2calculate%20resources">https://www.purplemash.com/#tab/teachers/guides and resources/2calculate resources</a></p>
2	+	9	=?																								
5	+	7	=?																								
6	+	5	=?																								
5	+	9	=?																								
8	+	4	=?																								
3	+	5	=?																								
	<p><b>A-Fish-Metic</b> Use level 1: Basic or level 2: Adding and Subtracting. The levels consolidate addition and subtraction skills via games.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> 																									




Number – multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division</a>	2Go activity – Counting in 2s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_2</a>
		Counting in 2s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake</a>
		2Go activity – Counting in 5s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_2</a>
		Counting in 5s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake</a>
		2Go activity – Counting in 10s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_2</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity.	<a href="https://www.purplemash.com/#app/divis/2quiz">https://www.purplemash.com/#app/divis/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>



	<p><b><u>2Race</u></b> Set up multiplayer games. Choose your track type and question types</p>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> <p>Pre-set choices include:</p> <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>
	<p><b><u>Table Toons</u></b> The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x</p>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a></p> 	 <p>Watch the help video from within Table Toons to find out how to make full use of this tool.</p> <p><a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a></p>
	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities to set as 2dos.</p> <p><b><u>2Calculate Lessons:</u></b> 10, 20, 30 Magic 12 Going Shopping Special Offers</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>

Number – fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</li> <li>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</li> </ul>	<b>Use of Mathematics printable resources</b>	Fraction Walls	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_fractions</a>
		Mini Mash Number resources	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/mm_resources_numbers">https://www.purplemash.com/#tab/teachers/printable_resources/mini_mash_resources/mm_resources_numbers</a>
	<b>Fraction Wall</b> Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.	<a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a> 	Use Challenge A, Level 1
	<b>Fractonio's Pizzeria</b> Develop fraction skills with 3 levels of difficulty.	<a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a> Level 1: Pizza Rookie 	Level 1: Pizza Rookie asks the children to use simple fractions to create a pizza. Level 2: Pizza Master encourages the children to use mixed fractions and level 3: Pizza King converts fractions into percentages.
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a>	Halves	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_halves">https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_halves</a>
		Quarters	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_quarters">https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_quarters</a>

Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Compare, describe and solve practical problems for:               <ul style="list-style-type: none"> <li>Lengths and heights [for example, long/short, longer/shorter, tall/short, double/half].</li> <li>Mass/weight [for example, heavy/light, heavier than, lighter than].</li> <li>Capacity and volume [for example, full/empty, more than, less than, half, half full, quarter].</li> <li>Time [for example, quicker, slower, earlier, later]</li> </ul> </li> <li>Measure and begin to record the following:               <ul style="list-style-type: none"> <li>Lengths and heights</li> <li>mass/weight</li> <li>capacity and volume</li> </ul> </li> </ul>	<p><b>Ready Made Activities In</b>  <a href="https://www.purplemash.com/site#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/site#tab/pm-home/maths/measures/maths_measures_all</a></p>	Longer or Shorter	<a href="https://www.purplemash.com/site#app/pup/maths_Comporder2_L2">https://www.purplemash.com/site#app/pup/maths_Comporder2_L2</a>
		Tallest & Shortest	<a href="https://www.purplemash.com/site#app/pup/maths_Comporder_L2">https://www.purplemash.com/site#app/pup/maths_Comporder_L2</a>
	<p><b>Length and Weight</b>  <b>2Calculate Spreadsheets</b>            Create a spreadsheet for pupils to record the lengths and weights of classroom objects.            Show children how the spreadsheet can sort them automatically and order by length or weight.</p>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<p><b>Length and Weight</b>  <b>2Investigate databases</b>            Create a database of objects with information including fields; length, weight, capacity, waterproof (y/n), stackable (y/n).            You can pose questions like which item would be best for packing your clothes in to go away for a week? or a day? which would be best for bringing water to school in? which would be good for packing your toys in? Then show how to search the database.</p>	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>

<ul style="list-style-type: none"> <li>○ time (hours, minutes, seconds)</li> <li>● Recognise and know the value of different denominations of coins and notes.</li> <li>● Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <li>● Recognise and use language relating to dates, including days of the week, weeks, months and years.</li> <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> </ul>	<p><b>Weight</b> <b>Maths City 2; Grocers</b> video of the grocers. Balance scale activity.</p>	<p><a href="https://www.purplemash.com/site/app/games/mc2">https://www.purplemash.com/site/app/games/mc2</a></p> 	<p>Watch the help video within the program for guidance on what children do in the activities. Printable resources are also available <a href="https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years">https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years</a></p>
	<p><b>Length</b> <b>Maths City 2; Shoe Shop</b> video of the shop. Children measuring feet. Activities measuring in footprints and shopping for shoes.</p>	<p><a href="https://www.purplemash.com/site/app/games/mc2">https://www.purplemash.com/site/app/games/mc2</a></p> 	<p>Watch the help video within the program for guidance on what children do in the activities. Printable resources are also available <a href="https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years">https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years</a></p>
	<p><b>Height</b> <b>Maths City 2; Shoe Shop.</b> Activity measuring height in hands.</p>	<p><a href="https://www.purplemash.com/site/app/games/mc2">https://www.purplemash.com/site/app/games/mc2</a></p> 	<p>Watch the help video within the program for guidance on what children do in the activities. Printable resources are also available <a href="https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years">https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years</a></p>
	<p><b>Time</b></p>	<p>Clock proformas, days of the week,</p>	<p><a href="https://www.purplemash.com/#tab/pm-">https://www.purplemash.com/#tab/pm-</a></p>

	<b>Use of Mathematics printable resources</b>	months of the year resources.	<a href="https://www.purplemash.com/home/themes/mathssubject/printable_resources_maths_time">home/themes/mathssubject/printable_resources_maths_time</a>
		Worksheets to accompany ready-made activities	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
	<b>Time</b> <b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a>	<b>Telling the time quiz</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_time_quiz">https://www.purplemash.com/#app/pup/maths_activities_Y1_time_quiz</a>
		<b>Sequencing activity – Racing positions</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_time_racing_positions">https://www.purplemash.com/#app/pup/maths_activities_Y1_time_racing_positions</a>
		<b>What's the Time Mr. Wolf? – 10 progressive cloze activities with accompanying printable worksheets</b>	<a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a>
		<b>Paint Projects – Clock 1</b> Draw the hands on the clock. Then draw a picture to show what happens at that time.	<a href="https://www.purplemash.com/site#app/pap/technology/clock_a">https://www.purplemash.com/site#app/pap/technology/clock_a</a>
		<b>Paint Project – Clock 2</b> Drag the numbers onto the digital clock face. Then draw a picture to show what happens at that time.	<a href="https://www.purplemash.com/#app/pap/technology/clock_d">https://www.purplemash.com/#app/pap/technology/clock_d</a>
		<b>Paint Project – Clock 3</b> Shade out the numbers on a digital clock face and draw what happens.	<a href="https://www.purplemash.com/site#app/pap/technology/clock_big_d">https://www.purplemash.com/site#app/pap/technology/clock_big_d</a>
	<b>Time</b> Create 2Quiz sequencing activities where the children place the days of the week, months, years or events in chronological order using the required language.	<a href="https://www.purplemash.com/site#tab/pm-home/tools/2diynew">https://www.purplemash.com/site#tab/pm-home/tools/2diynew</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>Money</b> <b>Ready-made 2Calculate Spreadsheet – Shopping, Going Shopping and Special offers</b> Using a spreadsheet to price objects	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> Activity can be accessed by pupils from within 2Calculate tool.	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>

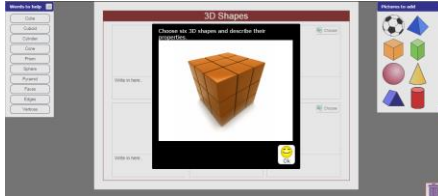
	and pay for them with coins. Includes lesson plan, premade spreadsheet and video to develop number problem-solving skills. You can also create your own <b>2Calculate</b> activities to set as 2dos.		
	<b>Money</b> Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money</a>	Money pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_measures_money_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y1_measures_money_pairs</a>
		Money up to 10p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_a</a>
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		Money up to 20p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_b">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_b</a>
		Money up to 50p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_b">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_b</a>
		Money up to £1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_b">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_b</a>

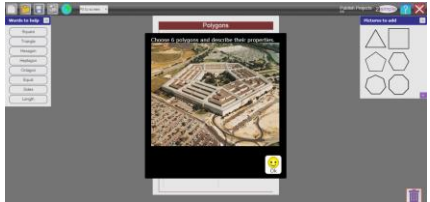
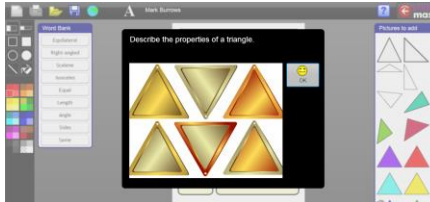
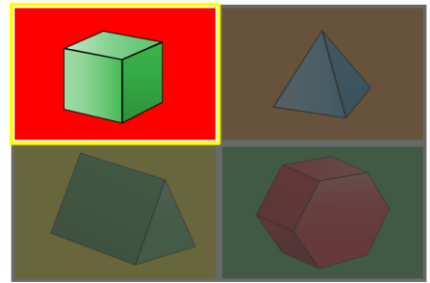
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_c">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_c</a> <a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_d">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_d</a>
	<p><b>Money</b></p> <p><b>Maths City 1: Toyshop</b> videos and money activity            Fill the shelves with toys and add prices, add toys to the shopping basket then pay (with 1p coins)</p> <p><b>Maths City 2: Grocers</b>            Shopping activity (stage 1-3)  <b>Shoe Shop</b> video of the shop and activity shopping for shoes.</p>	<p><a href="https://www.purplemash.com/site#app/games/mc1">https://www.purplemash.com/site#app/games/mc1</a></p>  <p><a href="https://www.purplemash.com/site#app/games/mc2">https://www.purplemash.com/site#app/games/mc2</a></p>  	<p> Watch the help video within the program for guidance on what children do in the activities.            Printable resources are also available  <a href="https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_1_resouces_early_years/maths_city_1_printable_toy">https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_1_resouces_early_years/maths_city_1_printable_toy</a>   <a href="https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years">https://www.purplemash.com/site#tab/pm-home/themes/mathssubject/maths_city_2_resouces_early_years</a></p>
	<p><b>Financial Capability activities</b>            Aimed at Y1-6 a collection of a variety of activities</p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a></p>	<p><a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a></p>

	<b>Capacity</b> <b>2Calculate Spreadsheets</b> Create a spreadsheet for pupils to record the capacities of classroom objects.		
	<b>2Quiz – Sequencing and labelling</b> Create quizzes where children order and label lengths, weights, capacities or time using full/empty, more than, less than, half, half full, quarter.	<a href="https://www.purplemash.com/#app/diyjs/2quiz">https://www.purplemash.com/#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>


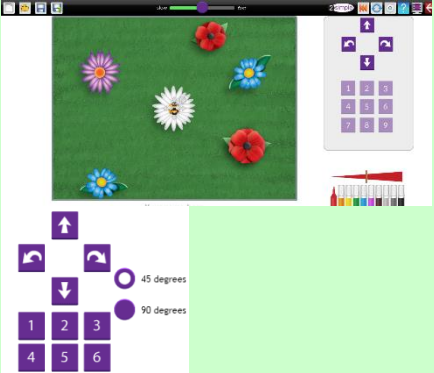




Geometry – properties of a shape			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Recognise and name common 2-D and 3-D shapes, including:               <ul style="list-style-type: none"> <li>2-D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> </ul> </li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shape dominoes, memory games and posters	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape</a>
	<b>Paint Projects</b> <b>Basic Shapes (2D)</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes">https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes</a>	
	<b>Rectangles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/rectangular_things">https://www.purplemash.com/#app/pap/size_and_shape/rectangular_things</a>	
	<b>Circles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/round_things">https://www.purplemash.com/#app/pap/size_and_shape/round_things</a>	
	<b>Squares</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/square_things">https://www.purplemash.com/#app/pap/size_and_shape/square_things</a>	
	<b>Triangles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/triangular_things">https://www.purplemash.com/#app/pap/size_and_shape/triangular_things</a>	
	<b>2D shape pairs game</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities/Y1_shape_2d">https://www.purplemash.com/#app/pup/maths_activities/Y1_shape_2d</a>	
	<b>Writing Projects</b> <b>3D Shapes</b> Choose 6 3D shapes and describe their properties	<a href="https://www.purplemash.com/#app/pup/3dshapes">https://www.purplemash.com/#app/pup/3dshapes</a> 	

	<p><b>Polygons</b> Choose 6 polygons and describe their properties</p> <p><b>Triangle Properties</b> Describe the properties of a triangle</p>	<p><a href="https://www.purplemash.com/#app/pup/polygons">p/pup/polygons</a></p>  <p><a href="https://www.purplemash.com/#app/pup/triangles">https://www.purplemash.com/#app/pup/triangles</a></p> 	
	<p><b>2Quiz</b> Create 2Quiz labelling activities where the children label objects with their shapes (2D and 3D).</p>	<p><a href="https://www.purplemash.com/site/#tab/pm-home/tools/2diynew">https://www.purplemash.com/site/#tab/pm-home/tools/2diynew</a></p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a></p>
	<p><b>2Design and Make</b> Pupils can use the 3D shapes in 2Design and Make to create nets with topic related designs, print them and fold them into the 3D shapes. Pupils could make 3D boxes in different 3D shapes.</p>	<p><a href="https://www.purplemash.com/#app/tools/2dam">https://www.purplemash.com/#app/tools/2dam</a></p> 	<p><a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a></p>


## Geometry – position and direction

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Describe position, direction and movement, including whole, half, quarter and three quarter</li> </ul>	<p><b>2Go</b></p> <p>Use the ready-made templates to guide the bee around, using directional controls.</p>  <p>Change the input method in settings to extend children's knowledge of directional control. There are several Challenges for children to try.</p>	<p><a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2golessonideas">https://www.purplemash.com/#tab/teachers/guides_and_resources/2golessonideas</a></p>

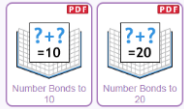

# Year 2

## Number – number and place value

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.</li> <li>Recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>Identify, represent and estimate numbers using different representations, including the numberline.</li> <li>Compare and order numbers from 0 up to 100; use and = signs.</li> <li>Read and write numbers to at least 100 in numerals and in words.</li> <li>Use place value and number facts to solve problems.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards, place value	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables – for identifying number patterns when counting in 2s, 3s, 5s and 10s. Includes printable games.	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>	Digits and words to 100	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers_100">https://www.purplemash.com/#app/pup/maths_activities_Y1_read_write_numbers_100</a>
		Numbers to 100 quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_numbers_100_quiz">https://www.purplemash.com/#app/pup/maths_activities_Y2_numbers_100_quiz</a>
		Number sequencing	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_sequencing">https://www.purplemash.com/#app/pup/maths_activities_Y1_sequencing</a>
		Number Bonds to 20 – pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20">https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20</a>
		Number Bonds to 20 – spreadsheet activity	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20_2Calc">https://www.purplemash.com/#app/pup/maths_activities_Y1_number_bonds_20_2Calc</a>
		Tens and Ones	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_tens_and_ones">https://www.purplemash.com/#app/pup/maths_activities_Y2_tens_and_ones</a>
		Order Numbers (<,>= signs)	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_order_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y2_order_numbers</a>
		Counting in 2s, 3s and 5s	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_counting_in_steps">https://www.purplemash.com/#app/pup/maths_activities_Y2_counting_in_steps</a>
		Counting in 2s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake</a>
		Counting in 3s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_3s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_3s_snake</a>

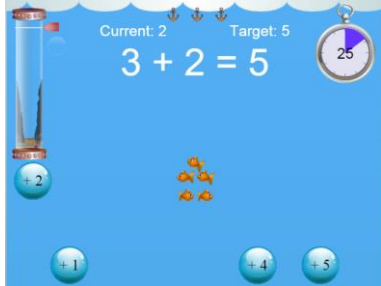
			<a href="#">hs_activities_Y2_count_3s_snake</a>
		Counting in 5s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake</a>
		Place Value Models – Tens & Ones	<a href="https://www.purplemash.com/site#app/pup/maths_activities_placevaluemodell10s1s_L2">https://www.purplemash.com/site#app/pup/maths_activities_placevaluemodell10s1s_L2</a>
		Place Value Models – Up to hundreds	<a href="https://www.purplemash.com/site#app/pup/maths_activities_placevaluemodell100s_L2">https://www.purplemash.com/site#app/pup/maths_activities_placevaluemodell100s_L2</a>
	Use <b>2Quiz Sequencing questions</b> to create some number sequencing and cloze quizzes. Can the children continue the sequence in their books?	<a href="https://www.purplemash.com/site#app/diyjs/2quiz">https://www.purplemash.com/site#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>
	Use <b>2Investigate</b> example databases to explore the language of: equal to, more than, less than (fewer), most, least.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>

	Use <b>2Investigate</b> example database <b>Numbers</b> to investigate numbers that are odd/even, divisible by 5 by using the search options in the database to display them pictorially.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>2Calculate Place Value Spreadsheets.</b> Helps children recognise the place value of each digit in a two-digit number (tens, ones). Use as a whiteboard resource or for individuals to challenge and test themselves.	<a href="https://www.purplemash.com/site#app/pup/2calc_place_value_TU">https://www.purplemash.com/site#app/pup/2calc_place_value_TU</a>	

Number – addition and subtraction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>○ Using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</li> <li>○ Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>• Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</li> <li>• Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:               <ul style="list-style-type: none"> <li>○ A two-digit number and ones.</li> <li>○ A two-digit number and tens.</li> <li>○ Two two-digit numbers.</li> <li>○ Adding three one-digit numbers</li> </ul> </li> <li>• Show that addition of two numbers can be done in any order (commutative) and</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, place value and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
		Number bonds 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_addition_subtraction">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_addition_subtraction</a>	Number bonds to 20 pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts_20">https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts_20</a>
		Number bonds to 100 in 10s pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts">https://www.purplemash.com/#app/pup/maths_activities_Y2_addition_and_subtraction_facts</a>
		Matching Models ( + & - )	<a href="https://www.purplemash.com/site#app/pup/maths_additionsubtractionmodels_L2">https://www.purplemash.com/site#app/pup/maths_additionsubtractionmodels_L2</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/even</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>





<p>subtraction of one number from another cannot.</p> <ul style="list-style-type: none"> <li>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</li> </ul>	<p><b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity.</p>	<a href="https://www.purplemash.com/#app/diyjs/2quiz">https://www.purplemash.com/#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>																							
	<p><b>Maths Cloze</b> Use <b>2Quiz</b> to create some number sequencing and cloze quizzes.</p>	<a href="https://www.purplemash.com/site#app/diyjs/2quiz">https://www.purplemash.com/site#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>																							
	<p><b>Pairs</b> Create your own matching pairs game of varying complexity. Match number bonds to 20, maths questions with their answer.</p>	<a href="https://www.purplemash.com/#app/tools/2pairspm">https://www.purplemash.com/#app/tools/2pairspm</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>																							
	<p><b>Bond Bubbles</b> Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge. . Up to 20, 200 and finally 400.</p>	<a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a> 	<p>Use Bond Bubbles Challenge A. Use the teacher icon at the top of the screen to change the target number</p>																							
	<p><b>2Calculate Spreadsheets</b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities to set as 2dos. <b>2Calculate Lessons:</b> Shopping On a Plate 1p and 2p</p>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> <table border="1"> <tbody> <tr><td>2</td><td>+</td><td>9</td><td>=?</td></tr> <tr><td>5</td><td>+</td><td>7</td><td>=?</td></tr> <tr><td>6</td><td>+</td><td>5</td><td>=?</td></tr> <tr><td>5</td><td>+</td><td>9</td><td>=?</td></tr> <tr><td>8</td><td>+</td><td>4</td><td>=?</td></tr> <tr><td>3</td><td>+</td><td>5</td><td>=?</td></tr> </tbody> </table>	2	+	9	=?	5	+	7	=?	6	+	5	=?	5	+	9	=?	8	+	4	=?	3	+	5	=?
2	+	9	=?																							
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5	+	9	=?																							
8	+	4	=?																							
3	+	5	=?																							






	Going Shopping Special Offers 2Pattern	Can be accessed by pupils from within 2Calculate tool.	
	<b>A-Fish-Metic</b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.	<a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a> 	

Number – multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (=) signs.</li> <li>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</li> <li>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</li> </ul>	Use of Mathematics printable resources	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division</a>	2Go activity – Counting in 2s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_2</a>
		Counting in 2s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_2s_snake</a>
		2Go activity – Counting in 5s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_2</a>
		Counting in 5s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_5s_snake</a>
		2Go activity – Counting in 10s -Level 1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_1">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_1</a>
		-Level 2	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_2">https://www.purplemash.com/#app/pup/maths_activities_Y1_count_10s_2</a>
		Counting in 3s Snake game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_count_3s_snake">https://www.purplemash.com/#app/pup/maths_activities_Y2_count_3s_snake</a>
		Odd and Even	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_odd_even">https://www.purplemash.com/#app/pup/maths_activities_Y2_odd_even</a>

	Multiplication Facts for 2,5,10 times tables.	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_multiplication_division_facts_2_5_10">https://www.purplemash.com/#app/pup/maths_activities_Y2_multiplication_division_facts_2_5_10</a>
	Arrays – Division Statements	<a href="https://www.purplemash.com/site#app/pup/maths_activities_arraysdivision_L2">https://www.purplemash.com/site#app/pup/maths_activities_arraysdivision_L2</a>
	Multiplication Expressions	<a href="https://www.purplemash.com/site#app/pup/maths_activities_multiplicationexpressions_L2">https://www.purplemash.com/site#app/pup/maths_activities_multiplicationexpressions_L2</a>
	Relating $\div$ and $\times$ to objects	<a href="https://www.purplemash.com/site#app/pup/maths_activities_relatingaddmult_L2">https://www.purplemash.com/site#app/pup/maths_activities_relatingaddmult_L2</a>
	Division by counting equal groups	<a href="https://www.purplemash.com/site#app/pup/maths_activities_divisiongroups_L2">https://www.purplemash.com/site#app/pup/maths_activities_divisiongroups_L2</a>
	Arrays as repeated addition – Expressions	<a href="https://www.purplemash.com/site#app/pup/maths_activities_arraysrepeatedaddition_expressions_L2">https://www.purplemash.com/site#app/pup/maths_activities_arraysrepeatedaddition_expressions_L2</a>
	Arrays as repeated addition – matching statements to array.	<a href="https://www.purplemash.com/site#app/pup/maths_activities_arraysrepeatedaddition_L2">https://www.purplemash.com/site#app/pup/maths_activities_arraysrepeatedaddition_L2</a>
	Use <b>2Investigate</b> example database <b>Numbers</b> to investigate numbers that are odd/even, divisible by 5 by using the search options in the database to display them pictorially.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a> <a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or $\times$ of varying complexity. Use Venn diagrams (in	<a href="https://www.purplemash.com/#app/diys/2quiz">https://www.purplemash.com/#app/diys/2quiz</a> <a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>

	<p><b>grouping)</b> to explore number patterns e.g. numbers in 2x table, in 5x table (in both). Children can develop their own.</p>	 <p>Example at  <a href="https://www.purplemash.com/app/pup/maths_activities_Y3_venn_multiples">https://www.purplemash.com/app/pup/maths_activities_Y3_venn_multiples</a></p>	
	<p><b>Table Toons</b>  The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x</p>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a></p> 	 <p>Watch the help video from within Table Toons to find out how to make full use of this tool.  <a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a></p>
	<p><b>2Calculate Spreadsheets</b>  Includes premade lesson plans and videos to develop number problem-solving skills.</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>  Create your own activities to set as 2dos.</p>
	<p><b>2Race</b>  Set up multiplayer games. Choose your track type and question types; pre-set choices include:</p> <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> </ul>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p>

	<ul style="list-style-type: none"> <li>• Division</li> <li>• Times tables</li> </ul>		
	<p><b>A-Fish-Metic</b></p> <p>Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> <p>Level 3 multiplication</p>	


Number – fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math>, and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity.</li> <li>Write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</li> </ul>	<b>Use of Mathematics printable resources</b>	Fraction Walls	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_fractions</a>
	<b>Fraction Wall</b> Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.	<a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a> 	Use Challenge A, Levels 2-4
	<b>Fractonio's Pizzeria</b> Develop fraction skills with 3 levels of difficulty.	<a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a> Level 1: Pizza Rookie 	Level 1: Pizza Rookie asks the children to use simple fractions to create a pizza. Level 2: Pizza Master encourages the children to use mixed fractions and level 3: Pizza King converts fractions into percentages.
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a>	Halves	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_halves">https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_halves</a>
		Quarters	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_quarters">https://www.purplemash.com/#app/pup/maths_activities_Y1_fractions_quarters</a>
		Equivalent Fractions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_fraction_equivalence">https://www.purplemash.com/#app/pup/maths_activities_Y2_fraction_equivalence</a>

Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.</li> <li>Compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =.</li> <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</li> </ul>	<p><b><u>Length and Weight</u></b>  <b><u>2Calculate Spreadsheets</u></b>            Create a spreadsheet for pupils to record the lengths and weights of classroom objects.            Show children how the spreadsheet can sort them automatically and order by length or weight.</p>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<p><b><u>Length and Weight</u></b>  <b><u>2Investigate databases</u></b>            Create a database of objects with information including fields; length, weight, capacity, waterproof (y/n), stackable (y/n).            Use the search facilities to practice the use of &gt;, &lt; and = symbols.</p>	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>
	<p><b><u>Time</u></b>  <b><u>Use of Mathematics printable resources</u></b></p>	Clock proformas, days of the week, months of the year resources.	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
		Worksheets to accompany ready-made activities	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
	<p><b><u>Time</u></b>  <b><u>Ready-made activities in</u></b>  <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a></p>	<b>Telling the time quiz</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_time_quiz">https://www.purplemash.com/#app/pup/maths_activities_Y1_time_quiz</a>
		<b>Sequencing activity – Racing positions</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_time_racing_positions">https://www.purplemash.com/#app/pup/maths_activities_Y1_time_racing_positions</a>

<p>money of the same unit, including giving change.</p> <ul style="list-style-type: none"> <li>Compare and sequence intervals of time.</li> <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.</li> </ul>		<b>What's the Time Mr. Wolf? – 10 progressive cloze activities with accompanying printable worksheets</b>	<a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a>
		<b>Paint Projects – Clock 1</b> Draw the hands on the clock. Then draw a picture to show what happens at that time.	<a href="https://www.purplemash.com/site#app/pap/technology/clock_a">https://www.purplemash.com/site#app/pap/technology/clock_a</a>
		<b>Paint Project – Clock 2</b>	<a href="https://www.purplemash.com/#app/pap/technology/clock_d">https://www.purplemash.com/#app/pap/technology/clock_d</a>
		<b>Paint Project – Clock 3</b> Shade out the numbers on a digital clock face and draw what happens.	<a href="https://www.purplemash.com/site#app/pap/technology/clock_big_d">https://www.purplemash.com/site#app/pap/technology/clock_big_d</a>
		<b>Writing Project</b> Choose 6 clocks and write the time and what happens	<a href="https://www.purplemash.com/#app/pup/time">https://www.purplemash.com/#app/pup/time</a>
	<b>Money</b> <b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money</a>	Money pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_measures_money_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y1_measures_money_pairs</a>
		Shop- Multi-drag game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_measures_money_drag">https://www.purplemash.com/#app/pup/maths_activities_Y2_measures_money_drag</a>
		Money up to 10p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_b">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto10_b</a>
		Calculating change from 10p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_b</a>
		Money up to 20p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto20_a</a>
			<a href="https://www.purplemash.com/#app/pup">https://www.purplemash.com/#app/pup</a>



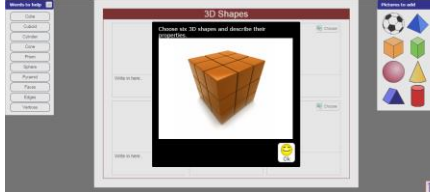
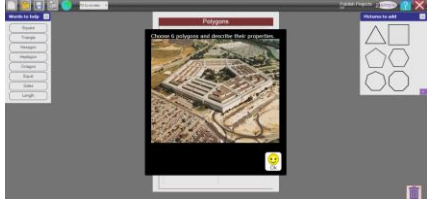

			<a href="#">/maths_activities_Y1_money_upto20_b</a>
		Calculating change from 20p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_a</a>
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		Money up to 50p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto50_a</a>
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		Calculating change from 50p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_a</a>
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		Money up to £1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_a">https://www.purplemash.com/#app/pup/maths_activities_Y1_money_upto100p_a</a>
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		Calculating change from £1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_b</a>

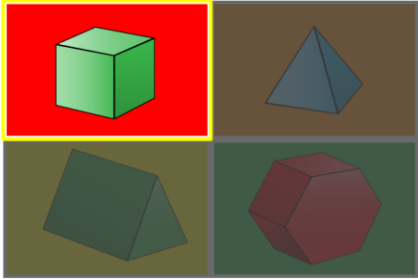
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			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_d">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_d</a>
	<b>Money</b> <b>Ready-made 2Calculate Spreadsheets – Shopping, Going Shopping and Special offers</b> Using a spreadsheet to price objects and pay for them with coins. Includes lesson plans, premade spreadsheets and videos to develop number problem-solving skills.  You can also create your own <b>2Calculate</b> activities to set as 2dos.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> Activity can be accessed by pupils from within 2Calculate tool.	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Financial Capability activities</b> Aimed at Y1-6 a collection of a variety of activities  	<a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a>	<a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a>
	<b>Practice of &gt;, &lt; and =. Symbols</b> Use of the 2Investigate example databases and worksheets to search the databases and find records meeting specific criteria.	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>Capacity 2Calculate Spreadsheets</b> Create a spreadsheet for pupils to record the capacities of classroom objects.	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>

	<b>Temperature</b> Combine with science experimentation. Use or <b>2Calculate</b> to record results. Use these tools to create <b>2Graph</b> line graphs of the data.	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>2Quiz – Sequencing and labelling</b> Create quizzes where children order and label lengths, weights, capacities or time using the vocabulary in the curriculum requirements e.g. full/empty, more than, less than, half, half full, quarter.	<a href="https://www.purplemash.com/#app/diys/2quiz">https://www.purplemash.com/#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>


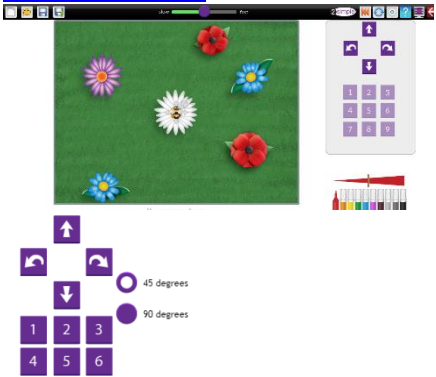
## Geometry – properties of a shape

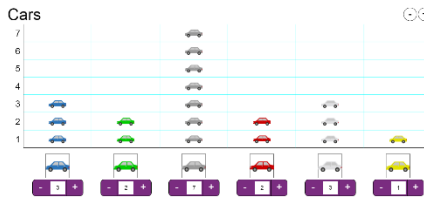
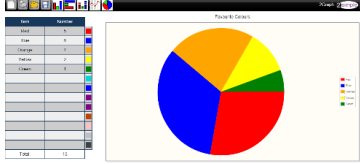
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</li> <li>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li> <li>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</li> <li>Compare and sort common 2-</li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shape dominoes, memory games and posters	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties">https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties</a>	<b>Basic Shapes (2D)</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes">https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes</a>
		<b>Rectangles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/rectangular_things">https://www.purplemash.com/#app/pap/size_and_shape/rectangular_things</a>
		<b>Circles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/round_things">https://www.purplemash.com/#app/pap/size_and_shape/round_things</a>
		<b>Squares</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/square_things">https://www.purplemash.com/#app/pap/size_and_shape/square_things</a>
		<b>Triangles</b>	<a href="https://www.purplemash.com/#app/pap/size_and_shape/triangular_things">https://www.purplemash.com/#app/pap/size_and_shape/triangular_things</a>

<p>D and 3-D shapes and everyday objects.</p>		<p><b>2D shape pairs game</b></p>	<p><a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_shape_2d">https://www.purplemash.com/#app/pup/maths_activities_Y1_shape_2d</a></p>
	<p><b><u>Writing Projects</u></b>  <b>3D Shapes</b>            Choose 6 3D shapes and describe their properties</p> <p><b>Polygons</b>            Choose 6 polygons and describe their properties</p> <p><b><u>Triangle Properties</u></b>            Describe the properties of a triangle</p>	<p><a href="https://www.purplemash.com/#app/pup/3dshapes">https://www.purplemash.com/#app/pup/3dshapes</a></p>  <p><a href="https://www.purplemash.com/#app/pup/polygons">https://www.purplemash.com/#app/pup/polygons</a></p>  <p><a href="https://www.purplemash.com/#app/pup/triangles">https://www.purplemash.com/#app/pup/triangles</a></p> 	
	<p><b><u>2Quiz</u></b>            Create 2Quiz labelling activities where the children label objects with their shapes (2D and 3D).</p>	<p><a href="https://www.purplemash.com/site/#tab/pm-home/tools/2diynew">https://www.purplemash.com/site/#tab/pm-home/tools/2diynew</a></p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a></p>
	<p><b><u>2Design and Make</u></b>            Pupils can use the 3D shapes in 2Design and Make to create nets with topic related designs, print them and fold them into the 3D shapes.            Pupils could make 3D boxes in</p>	<p><a href="https://www.purplemash.com/#app/p/tools/2dam">https://www.purplemash.com/#app/p/tools/2dam</a></p>	<p><a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a></p>

	different 3D shapes.		
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## Geometry – position and direction

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Order and arrange combinations of mathematical objects in patterns and sequences.</li> <li>Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).</li> </ul>	<p><b>2Go</b></p> <p>Use the ready-made templates to guide the bee around, using directional controls.</p>  <p>Change the input method in settings to extend children's knowledge of directional control. There are several Challenges for children to try.</p>	<p><a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2goalssonideas">https://www.purplemash.com/#tab/teachers/guides_and_resources/2goalssonideas</a></p>

Statistics			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</li> <li>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</li> </ul> <p>Ask and answer questions about totalling and comparing categorical data.).</p>	<p><b>Ready-made activities in</b>  <a href="https://www.purplemash.com/site#tab/pm-home/maths/statistics">https://www.purplemash.com/site#tab/pm-home/maths/statistics</a></p>	<b>Graph activity</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_charts">https://www.purplemash.com/#app/pup/maths_activities_Y2_charts</a>
		<b>Venn Diagrams</b>	<a href="https://www.purplemash.com/site#app/pup/maths_identcategoriesdata_L2">https://www.purplemash.com/site#app/pup/maths_identcategoriesdata_L2</a>
		<b>Tally Tables and Data Tables</b>	<a href="https://www.purplemash.com/site#app/pup/maths_identcategoriesdata1_L2">https://www.purplemash.com/site#app/pup/maths_identcategoriesdata1_L2</a>
	<p><b>2Count</b>            Design and make simple pictograms based around common themes including cars, dice, fruit, eyes, fruit and pets.</p>	<p><a href="https://www.purplemash.com/#app/tools/2count">https://www.purplemash.com/#app/tools/2count</a></p> 	<a href="https://www.purplemash.com/#app/guides/2Count_Guide">https://www.purplemash.com/#app/guides/2Count_Guide</a>
	<p><b>2Graph</b>            Create a range of bar, block, line and pie charts to show information gathered from elsewhere.</p>	<p><a href="https://www.purplemash.com/#app/tools/2graph">https://www.purplemash.com/#app/tools/2graph</a></p> 	<a href="https://www.purplemash.com/#app/guides/2Graph_Guide">https://www.purplemash.com/#app/guides/2Graph_Guide</a>
	<p><b>2Calculate Spreadsheets</b>            Includes premade lesson plans and videos to develop number problem-solving skills.            Create your own activities to set as 2dos e.g. create a simple bar chart</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>

to show eye colours in the class.

**Relevant 2Calculate Lessons:**

Nice Ices

That's my Favourite

Special Offers

Block Chart, Bar Chart



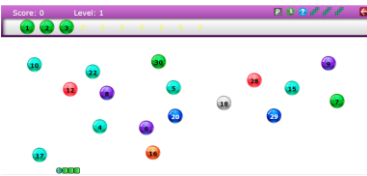
Can be accessed by pupils from within 2Calculate tool.


# Year 3

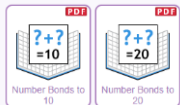
## Number – number and place value



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.</li> <li>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li> <li>Compare and order numbers up to 1000.</li> <li>Identify, represent and estimate numbers using different representations.</li> <li>Read and write numbers up to 1000 in numerals and in words.</li> <li>Solve number problems and practical problems involving these ideas.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards, place value	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
		Times Tables – in 100 squares, memory cards and dominoes.	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>	Tens and Ones	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_tens_and_ones">https://www.purplemash.com/#app/pup/maths_activities_Y2_tens_and_ones</a>
		Order Numbers (<,>= signs)	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_order_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y2_order_numbers</a>
		Numbers to 1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_1000">https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_1000</a>
		Place value in 3-digit numbers	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_place_value_3digits">https://www.purplemash.com/#app/pup/maths_activities_Y3_place_value_3digits</a>
		Multiples of 4	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_multiples_of4">https://www.purplemash.com/#app/pup/maths_activities_Y3_multiples_of4</a>
		Multiples of 8	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_multiples_of8">https://www.purplemash.com/#app/pup/maths_activities_Y3_multiples_of8</a>
		Numbers to 1000 in words	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_to1000_a">https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_to1000_a</a>
		Numbers to 1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_to1000_b">https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_to1000_b</a>

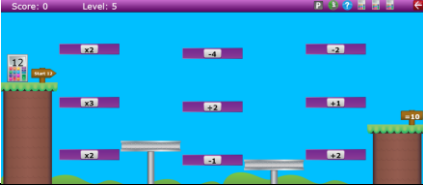
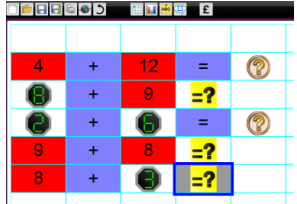
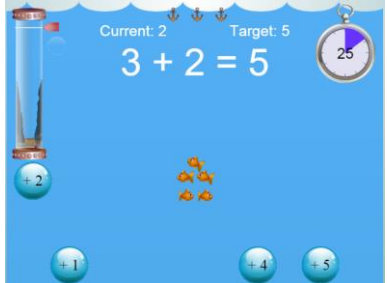


		Converting between place value – 10,000	<a href="https://www.purplemash.com/site#app/pup/maths_activities_convertingbetweenplacevalu e10000_L3">https://www.purplemash.com/site#app/pup/maths_activities_convertingbetweenplacevalu e10000_L3</a>
		Converting to a number – Upto 10,000	<a href="https://www.purplemash.com/site#app/pup/maths_recognising10000_L3">https://www.purplemash.com/site#app/pup/maths_recognising10000_L3</a>
	<b>2Calculate Place Value Spreadsheets.</b> Helps children recognise the place value of each digit in a three-digit number (tens, ones). Use as a whiteboard resource or for individuals to challenge and test themselves.	Tens and Ones <a href="https://www.purplemash.com/site#app/pup/2calc_place_value_TU">https://www.purplemash.com/site#app/pup/2calc_place_value_TU</a> Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_HTU">https://www.purplemash.com/#app/pup/2calc_place_value_HTU</a> Thousands, Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU">https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU</a>	
	Use <b>2Quiz Sequencing questions</b> to create some number sequencing and cloze quizzes. Can the children continue the sequence in their books?	<a href="https://www.purplemash.com/site#app/diyjs/2quiz">https://www.purplemash.com/site#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	Game <b>Sequence Snake:</b> Eat the numbered balls to complete the sequence. Three levels of challenge that increases the complexity of the numbers used and the speed. – use challenge B.	<a href="https://www.purplemash.com/#app/games/seqsnake">https://www.purplemash.com/#app/games/seqsnake</a> 	
	Use 2DIY Game Sequence Snake to make a game suited to your pupils. Or use ready-made games for other year groups (in 2s, 3s and 5s)	<a href="https://www.purplemash.com/site#app/tools/2diy/Snake">https://www.purplemash.com/site#app/tools/2diy/Snake</a>	Watch the help video in the app for a quick overview of how to do this.




	Use <b>2Investigate</b> example databases to explore the language of: equal to, more than, less than (fewer), most, least.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>
	Use <b>2Investigate</b> example database <b>Numbers</b> to investigate numbers that are odd/even, divisible by 5 by using the search options in the database to display them pictorially.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>

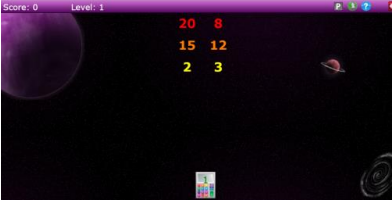
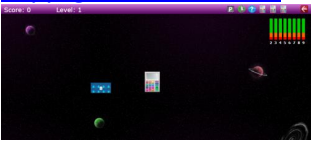
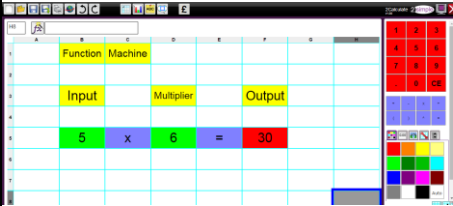

Number – addition and subtraction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>A three-digit number and ones.</li> <li>A three-digit number and tens</li> <li>A three-digit number and hundreds</li> </ul> </li> <li>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</li> <li>Estimate the answer to a calculation and use inverse operations to check answers</li> <li>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
		Number bonds 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/site#tab/pm-home/maths/numbers/number_addition_subtraction">https://www.purplemash.com/site#tab/pm-home/maths/numbers/number_addition_subtraction</a>	HTO + O	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusO">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusO</a>
		HTO + T	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusT">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusT</a>
		HTO + H	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusH">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOplusH</a>
		HTO – O	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusO">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusO</a>
		HTO – T	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusT">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusT</a>
		HTO – H	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusH">https://www.purplemash.com/site#app/pup/maths_activities_Y3_numbers_addition_HTOminusH</a>
		Fact Families	<a href="https://www.purplemash.com/site#app/pup/maths_factfamilies_L3">https://www.purplemash.com/site#app/pup/maths_factfamilies_L3</a>

		Matching related + & - facts	<a href="https://www.purplemash.com/site#app/pup/maths_matchrelatingfacts_L3">https://www.purplemash.com/site#app/pup/maths_matchrelatingfacts_L3</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity. Use for mental maths practice and testing.	<a href="https://www.purplemash.com/#app/diyjs/2quiz">https://www.purplemash.com/#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>
	<b>Bond Bubbles</b> Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge. . Up to 20, 200 and finally 400.	<a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a> 	Use Bond Bubbles Challenge B and levels 8-12.



	<p><b><u>Funky Platform</u></b> Make the number on the calculator equal the to the target number by jumping on the SUM platforms. Gain bonus points by doing this in as few moves as possible.</p>	<p><a href="https://www.purplemash.com/site#app/games/funkyplatform">https://www.purplemash.com/site#app/games/funkyplatform</a></p> 	<p>Three levels of challenge that increases the complexity of the numbers used and the speed. Use challenge B and levels 4 upwards</p>
	<p><b><u>2Calculate Random number sums example</u></b></p>	<p><a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_addition_spreadsheet">https://www.purplemash.com/#app/pup/maths_activities_Y4_addition_spreadsheet</a></p>	<p>Use 2Calculate random number tool to create problems for the children to solve. Set these as 2dos.</p> 
	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills. <b><u>2Calculate Lessons:</u></b> Two Number Test Even Numbers Counting Machine 1 &amp; 2 Sequences</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>
	<p><b><u>A-Fish-Metic</u></b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> 	

Number – multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li> <li>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division</a>	Multiplication Facts for 2,5,10 times tables.	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_multiplication_division_facts_2_5_10">https://www.purplemash.com/#app/pup/maths_activities_Y2_multiplication_division_facts_2_5_10</a>
		Sorting Multiples	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_venn_multiples">https://www.purplemash.com/#app/pup/maths_activities_Y3_venn_multiples</a>
		3 x table pairs	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_3x_pairs">https://www.purplemash.com/site#app/pup/maths_activities_Y3_3x_pairs</a>
		3 x table spreadsheet	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_3x_spreadsheet">https://www.purplemash.com/site#app/pup/maths_activities_Y3_3x_spreadsheet</a>
		4 x table pairs	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_4x_pairs">https://www.purplemash.com/site#app/pup/maths_activities_Y3_4x_pairs</a>
		4 x table spreadsheet	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_4x_spreadsheet">https://www.purplemash.com/site#app/pup/maths_activities_Y3_4x_spreadsheet</a>
		8 x table pairs	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_8x_pairs">https://www.purplemash.com/site#app/pup/maths_activities_Y3_8x_pairs</a>
		8 x table spreadsheet	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y3_8x_spreadsheet">https://www.purplemash.com/site#app/pup/maths_activities_Y3_8x_spreadsheet</a>
		Multiplication Facts for 3,4,8 times tables.	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_multiplication_facts_348">https://www.purplemash.com/#app/pup/maths_activities_Y3_multiplication_facts_348</a>

	Use <b>2Investigate</b> example database <b>Numbers</b> to investigate numbers that are odd/even, divisible by 5 by using the search options in the database to display them pictorially.	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a>	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity.	<a href="https://www.purplemash.com/#app/diyjs/2quiz">https://www.purplemash.com/#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>
	<b>Table Toons</b> The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x	<a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a> 	 Watch the help video from within Table Toons to find out how to make full use of this tool. <a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a>

	<p><b><u>Dividers</u></b> Divide the numbers before they reach the calculator by firing factors at them. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site#app/games/dividers">https://www.purplemash.com/site#app/games/dividers</a></p> 	<p>Use Challenge A. Remember you can change the level using the teachers tab at the top of the screen</p>
	<p><b><u>Factoroids</u></b> Break down the factors into equal parts. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site#app/games/factoroids">https://www.purplemash.com/site#app/games/factoroids</a></p> 	<p>Use Challenge A. Remember you can change the level using the teachers tab at the top of the screen</p>
	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills. <b><u>2Calculate Lessons:</u></b> Counting Machine 1 &amp; 2 Sequences</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p> <p>Ask the children to create their own number machine spreadsheet. Create your own activities to set as 2dos.</p>
	<p><b><u>A-Fish-Metic</u></b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a> Level 3 multiplication</p> 	
	<p><b><u>Pairs</u></b> Create your own matching pairs game of varying complexity. Match times tables questions with their answer.</p>	<p><a href="https://www.purplemash.com/#app/tools/2pairspm">https://www.purplemash.com/#app/tools/2pairspm</a></p>	<p><a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2diy_2quiz_resources</a></p>

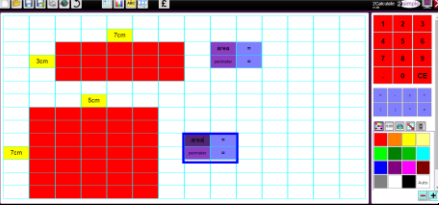
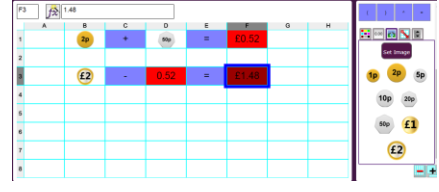


Number – Fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</li> <li>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> <li>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>Recognise and show, using diagrams, equivalent fractions with small denominators.</li> <li>Add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>].</li> <li>Compare and order unit fractions, and fractions with the same</li> </ul>	<p><b>Use of Mathematics printable resources</b></p>	<p>Fraction Walls</p>	<p><a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_math_fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_math_fractions</a></p>
	<p><b>Fraction Wall</b></p> <p>Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a></p> 	<p>Use Challenge A, Levels 2-4. You can change the level using the teachers tab at the top of the screen.</p>
	<p><b>Fractonio's Pizzeria</b></p> <p>Develop fraction skills with 3 levels of difficulty.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a></p> <p>Level 1: Pizza Rookie</p> 	<p><b>Level 1:</b> Pizza Rookie asks the children to use simple fractions to create a pizza.  <b>Level 2:</b> Pizza Master encourages the children to use mixed fractions and  <b>Level 3:</b> Pizza King converts fractions into percentages.</p>
	<p>Ready-made activities in</p>	<p>Equivalent Fractions</p>	<p><a href="https://www.purplemash.com/#app/pup/mat">https://www.purplemash.com/#app/pup/mat</a></p>

denominators. • Solve problems that involve all of the above.	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a>		<a href="#">hs activities Y2 fraction equivalence</a>
		Fraction Quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_fraction_equivalence">https://www.purplemash.com/#app/pup/maths_activities_Y3_fraction_equivalence</a>
		Finding Matching Expressions	<a href="https://www.purplemash.com/site#app/pup/maths_findingmatchingexpressions_L3">https://www.purplemash.com/site#app/pup/maths_findingmatchingexpressions_L3</a>
		Fraction Bar	<a href="https://www.purplemash.com/site#app/pup/maths_fractionbar_L3">https://www.purplemash.com/site#app/pup/maths_fractionbar_L3</a>
		Fraction Of Number Lines	<a href="https://www.purplemash.com/site#app/pup/maths_fractionofnumberlines_L3">https://www.purplemash.com/site#app/pup/maths_fractionofnumberlines_L3</a>
		Unit Fractions On A Number Line 1	<a href="https://www.purplemash.com/site#app/pup/maths_unitfractions_L3">https://www.purplemash.com/site#app/pup/maths_unitfractions_L3</a>
		Unit Fractions On A Number Line 2	<a href="https://www.purplemash.com/site#app/pup/maths_unitfractions2_L3">https://www.purplemash.com/site#app/pup/maths_unitfractions2_L3</a>

Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li> <li>Measure the perimeter of simple 2-D shapes.</li> </ul>	<b><u>Length and Weight</u></b> <b><u>2Calculate Spreadsheets</u></b> Create a spreadsheet for pupils to record the lengths and weights of classroom objects. Show children how the spreadsheet can sort them automatically and order by length or weight.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>

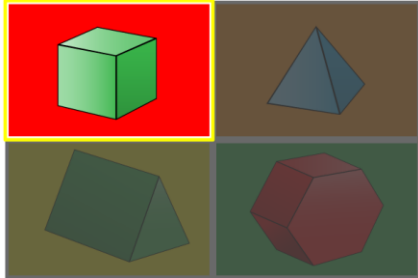

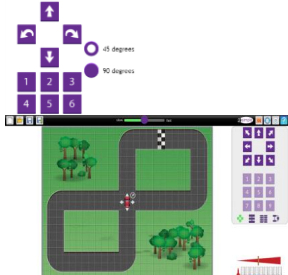
<ul style="list-style-type: none"> <li>• Add and subtract amounts of money to give change, using both £ and p in practical contexts.</li> <li>• Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</li> <li>• Estimate and read time with increasing accuracy to the nearest minute; 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.</li> <li>• Know the number of seconds in a minute and the number of days in each month, year and leap year.</li> <li>• Compare durations of events [for example to calculate the time taken by particular events or tasks].</li> </ul>	<b><u>Length and Weight</u></b> <b><u>2Investigate databases</u></b> Create a database of objects with information including fields; length, weight, capacity, waterproof (y/n), stackable (y/n). Use the search facilities to practice the use of >, < and = symbols.	<a href="https://www.purplemash.com/#app/tools/2inv">https://www.purplemash.com/#app/tools/2inv</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2inv_resources</a>
	<b><u>Time</u></b> <b><u>Use of Mathematics printable resources</u></b>	Clock proformas, days of the week, months of the year resources.	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
		Worksheets to accompany ready-made activities	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
		Roman Numerals	<a href="https://www.purplemash.com/site#app/lessonplans/info/printables_maths_templates_roman">https://www.purplemash.com/site#app/lessonplans/info/printables_maths_templates_roman</a>
	<b><u>Time</u></b> <b><u>Ready-made activities in</u></b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a>	<b>What's the Time Mr. Wolf? – 10 progressive cloze activities with accompanying printable worksheets</b>	<a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a>
		Time Conversions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions</a>
		Clock faces	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_1">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_1</a>
		Telling the time	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_2">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_2</a>
		Pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_pairs</a>
		Writing Project	<a href="https://www.purplemash.com/#app/pup/time">https://www.purplemash.com/#app/pup/time</a>
		Units of Time	<a href="https://www.purplemash.com/site#app/pup/maths_converttime_L4">https://www.purplemash.com/site#app/pup/maths_converttime_L4</a>


	AM or PM	<a href="https://www.purplemash.com/site#app/pup/maths_useAMPM1_L4">https://www.purplemash.com/site#app/pup/maths_useAMPM1_L4</a>
<b>Perimeter</b> <b>2Calculate Spreadsheets</b> Create a spreadsheet for pupils to record the lengths and widths of 2D shapes and create formulae to calculate perimeter (and area).	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all</a>	Convert units of measure  Perimeter	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert</a> <a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_perimeters">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_perimeters</a>
<b>Money</b> <b>2Calculate Spreadsheets</b> Use of the money images and currency formatting of cells to explore mathematics with money and calculate change. Use images to create a virtual shop and set simulated shopping tasks.	<a href="https://www.purplemash.com/#app/tools/2dragmulti">https://www.purplemash.com/#app/tools/2dragmulti</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
<b>Money</b> Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_money</a>	Shop multi-drag game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_measures_money_drag">https://www.purplemash.com/#app/pup/maths_activities_Y2_measures_money_drag</a>
	Calculating change from 10p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_a</a> <a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to10p_b</a>
	Calculating change from 20p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_a</a>

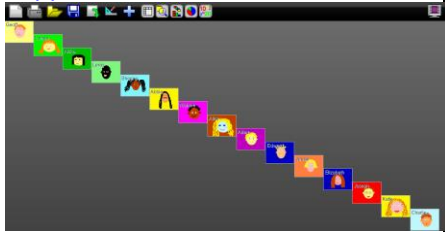
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to20p_b</a>
		Calculating change from 50p	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to50p_b</a>
		Calculating change from £1	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_a">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_a</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_b">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_b</a>
			<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_c">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_c</a>
	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_d">https://www.purplemash.com/#app/pup/maths_activities_Y2_money_change_up_to100p_d</a>		
<b><u>Financial Capability activities</u></b> Aimed at Y1-6 a collection of a variety of activities 	<a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a>	<a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a>	
<b><u>Capacity</u></b> <b><u>2Calculate Spreadsheets</u></b> Create a spreadsheet for pupils to record the capacities of classroom objects.			

## Geometry – properties of a shape

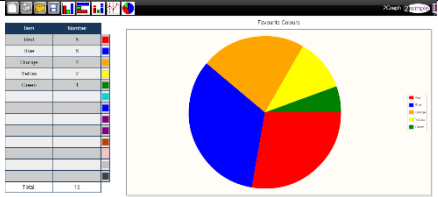

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.</li> <li>Recognise angles as a property of shape or a description of a turn.</li> <li>Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.</li> <li>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shape dominoes, memory games and posters	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape</a>
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties">https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties</a>	2D shape pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y1_shape_2d">https://www.purplemash.com/#app/pup/maths_activities_Y1_shape_2d</a>
		2D shape perimeter	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_2d_perimeter">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_2d_perimeter</a>
		3D shape pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_pairs</a>
		Label 2D and 3D shapes	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_label_s">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_label_s</a>
		Sort into 2D and 3D shapes	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_2d_3D_quiz">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_2d_3D_quiz</a>
		Types of lines	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_lines">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_lines</a>
		3D shape branching database	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_branching_db">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_branching_db</a>
		Writing Project - 3D Shapes	<a href="https://www.purplemash.com/#app/pup/3dshapes">https://www.purplemash.com/#app/pup/3dshapes</a>
		Writing Project - Polygons	<a href="https://www.purplemash.com/#app/pup/polygons">https://www.purplemash.com/#app/pup/polygons</a>
		Writing Project - Triangle Properties	<a href="https://www.purplemash.com/#app/pup/triangles">https://www.purplemash.com/#app/pup/triangles</a>

	Paint Project -_Basic Shapes (2D)	<a href="https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes">https://www.purplemash.com/#app/pap/size_and_shape/basic_shapes</a>
	Paint Project -_Rectangles	<a href="https://www.purplemash.com/#app/pap/size_and_shape/rectangular_things">https://www.purplemash.com/#app/pap/size_and_shape/rectangular things</a>
	Paint Project -_Circles	<a href="https://www.purplemash.com/#app/pap/size_and_shape/round_things">https://www.purplemash.com/#app/pap/size_and_shape/round things</a>
	Paint Project -_Squares	<a href="https://www.purplemash.com/#app/pap/size_and_shape/square_things">https://www.purplemash.com/#app/pap/size_and_shape/square things</a>
	Paint Project -_Triangles	<a href="https://www.purplemash.com/#app/pap/size_and_shape/triangular_things">https://www.purplemash.com/#app/pap/size_and_shape/triangular things</a>
<b><u>2Quiz</u></b> Create 2Quiz labelling activities where the children label objects with their shapes (2D and 3D).	<a href="https://www.purplemash.com/site#tab/pm-home/tools/2diynew">https://www.purplemash.com/site#tab/pm-home/tools/2diynew</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides and resources/2diy 2quiz resources</a>
<b><u>2Design and Make</u></b> Pupils can use the 3D shapes in 2Design and Make to create nets with topic related designs, print them and fold them into the 3D shapes. Pupils could make 3D boxes in different 3D shapes.	<a href="https://www.purplemash.com/#app/tools/2dam">https://www.purplemash.com/#app/tools/2dam</a> 	<a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a>
<b><u>2Go</u></b> Use the ready-made templates to guide the object around the screen or begin to write a more complicated series of instructions  Change the input method in settings to extend children's knowledge of directional control. There are several Challenges for	<a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2go_lessonideas">https://www.purplemash.com/#tab/teachers/guides and resources/2go_lessonideas</a>

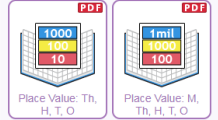
	children to try.		
	<b>Logo</b> Write instructions of developing complexity to control the on screen turtle using simple logo commands	<a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a> 	<a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a>

Statistics			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Interpret and present data using bar charts, pictograms and tables.</li> </ul> Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/site#tab/pm-home/maths/statistics">https://www.purplemash.com/site#tab/pm-home/maths/statistics</a>	Graph activity	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_statistics_questions">https://www.purplemash.com/#app/pup/maths_activities_Y3_statistics_questions</a>
		Interpreting Block Graphs	<a href="https://www.purplemash.com/site#app/pup/maths_Interpretdata2_L3">https://www.purplemash.com/site#app/pup/maths_Interpretdata2_L3</a>
		Interpreting Pictograms	<a href="https://www.purplemash.com/site#app/pup/maths_evaluate1_L4">https://www.purplemash.com/site#app/pup/maths_evaluate1_L4</a>
	<b>2Investigate</b> Create databases and watch the computer move the data cards around the screen to perform meaningful searches and sorts; Perform advanced and / or searches; Make reports on the database; Update data / pictures across a network instantly	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>  Use the ready-made databases and accompanying worksheets to practice problem solving using data.
	<b>2Graph</b> Create a range of bar, block, line and pie charts to show	<a href="https://www.purplemash.com/#app/tools/2graph">https://www.purplemash.com/#app/tools/2graph</a>	<a href="https://www.purplemash.com/#app/guides/2Graph_Guide">https://www.purplemash.com/#app/guides/2Graph_Guide</a>

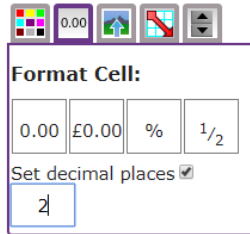
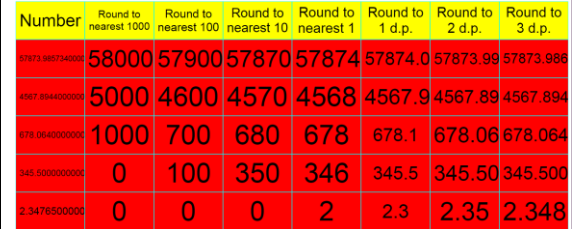




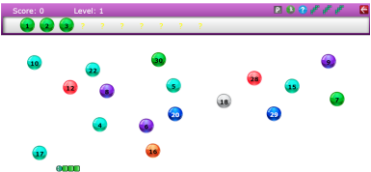
	information gathered from elsewhere.		
	<p><b><u>2Calculate Spreadsheets</u></b></p> <p>Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p>Create your own activities including scaled bar charts and tables.</p> <p><b><u>Relevant 2Calculate Lessons:</u></b></p> <p>Frequency Tables</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>  <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>

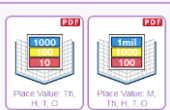
# Year 4




Number – number and place value			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Count in multiples of 6, 7, 9, 25 and 1000.</li> <li>Find 1000 more or less than a given number.</li> <li>Count backwards through zero to include negative numbers.</li> <li>Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li> <li>Order and compare numbers beyond 1000.</li> <li>Identify, represent and estimate numbers using different representations.</li> <li>Round any number to the nearest 10, 100 or 1000.</li> <li>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards, place value	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
		Times Tables – in 100 squares, memory cards and dominoes.	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_tables">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_tables</a>
		Roman Numerals	<a href="https://www.purplemash.com/#app/lessonplans/info/printables_maths_templates_roman">https://www.purplemash.com/#app/lessonplans/info/printables_maths_templates_roman</a>
		Place Value Place Value: 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>	Numbers to 1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_1000">https://www.purplemash.com/#app/pup/maths_activities_Y3_numbers_1000</a>
		Place value in 3-digit numbers	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_place_value_3digits">https://www.purplemash.com/#app/pup/maths_activities_Y3_place_value_3digits</a>
		Multiples of 6,7,9,25,1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_multiples">https://www.purplemash.com/#app/pup/maths_activities_Y4_multiples</a>
		Count in multiples of 6, 7, 9, 25 and 1000 quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_multiples679251000">https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_multiples679251000</a>
		Roman Numerals	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_roman_numerals">https://www.purplemash.com/#app/pup/maths_activities_Y4_roman_numerals</a>

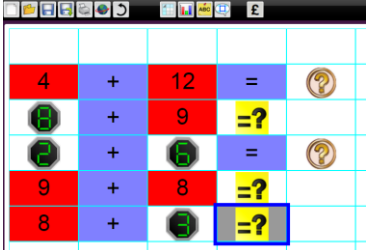
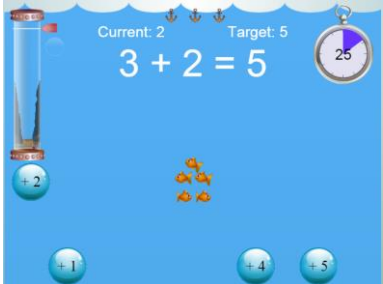
<ul style="list-style-type: none"> <li>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</li> </ul>		Roman Numerals	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_roman_numerals">https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_roman_numerals</a>
		Thousands	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_thousands">https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_thousands</a>
		Rounding spreadsheet	<a href="https://www.purplemash.com/#app/pup/2calc_rounding">https://www.purplemash.com/#app/pup/2calc_rounding</a>
		Find 1000 less	<a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a>
		Find 1000 more	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y4_1000_more">https://www.purplemash.com/site#app/pup/maths_activities_Y4_1000_more</a>
		Order and compare numbers beyond 1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_over_1000">https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_over_1000</a>
		Values Of Digits – TTh	<a href="https://www.purplemash.com/site#app/pup/maths_recognisingplacevaluepatterns2_L4">https://www.purplemash.com/site#app/pup/maths_recognisingplacevaluepatterns2_L4</a>
		Write numbers in figures -TTh	<a href="https://www.purplemash.com/site#app/pup/maths_fivedigitnumbersinwords_L4">https://www.purplemash.com/site#app/pup/maths_fivedigitnumbersinwords_L4</a>
		Sort The Numbers -TTh	<a href="https://www.purplemash.com/site#app/pup/maths_recognisingplacevaluepatterns_L4">https://www.purplemash.com/site#app/pup/maths_recognisingplacevaluepatterns_L4</a>
		Number Patterns	<a href="https://www.purplemash.com/site#app/pup/maths_numberpatterns_L4">https://www.purplemash.com/site#app/pup/maths_numberpatterns_L4</a>
		Partitioning To Find Unknown 1	<a href="https://www.purplemash.com/site#app/pup/maths_partitioning_L4">https://www.purplemash.com/site#app/pup/maths_partitioning_L4</a>
		Partitioning To Find Unknown 2	<a href="https://www.purplemash.com/site#app/pup/maths_partitioning2_L4">https://www.purplemash.com/site#app/pup/maths_partitioning2_L4</a>
		<b>2Calculate Place Value</b>	Tens and Ones

		<b>Spreadsheets.</b> Helps children recognise the place value of each digit in a three-digit number (tens, ones). Use as a whiteboard resource or for individuals to challenge and test themselves.	<a href="https://www.purplemash.com/site#app/pup/2calc_place_value_TU">https://www.purplemash.com/site#app/pup/2calc_place_value_TU</a> Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_HTU">https://www.purplemash.com/#app/pup/2calc_place_value_HTU</a> Thousands, Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU">https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU</a>
		2-Player place value game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_pv_game">https://www.purplemash.com/#app/pup/maths_activities_Y4_pv_game</a>
		Place value in 4-digits	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_place_value_4digit">https://www.purplemash.com/app/pup/maths_activities_Y4_place_value_4digit</a>
	<b>2Calculate</b> Explore formatting with numbers of decimal places; relate to rounding.	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a> 
	Use <b>2Quiz Sequencing questions</b> to create some number sequencing and cloze quizzes. Can the children continue the sequence in their books?	<a href="https://www.purplemash.com/site#app/diys/2quiz">https://www.purplemash.com/site#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>

	<ul style="list-style-type: none"> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>		
	Use <b>2Go</b> to create an activity where the children have to visit all of the numbers in the correct order.	<a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2golessonideas">https://www.purplemash.com/#tab/teachers/guides_and_resources/2golessonideas</a>
	Game <b>Sequence Snake:</b> Eat the numbered balls to complete the sequence. Three levels of challenge that increases the complexity of the numbers used and the speed. – use challenge B.	<a href="https://www.purplemash.com/#app/games/seqsnake">https://www.purplemash.com/#app/games/seqsnake</a> 	
	Use 2DIY Game Sequence Snake to make a game suited to your pupils or use ready-made games for other year groups (in 2s, 3s and 5s)	<a href="https://www.purplemash.com/site/app/tools/2diy/Snake">https://www.purplemash.com/site/app/tools/2diy/Snake</a>	Watch the help video in the app for a quick overview of how to do this.




Number – addition and subtraction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</li> <li>Estimate and use inverse operations to check answers to a calculation.</li> <li>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
		Place Value 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/site#tab/pm-home/maths/numbers/number_addition_subtraction">https://www.purplemash.com/site#tab/pm-home/maths/numbers/number_addition_subtraction</a>	Missing Numbers In Equations 1	<a href="https://www.purplemash.com/site#app/pup/maths_numbersentences_L4">https://www.purplemash.com/site#app/pup/maths_numbersentences_L4</a>
		Missing Numbers In Equations 2	<a href="https://www.purplemash.com/site#app/pup/maths_numbersentences2_L4">https://www.purplemash.com/site#app/pup/maths_numbersentences2_L4</a>
		Random Number Addition Example	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y4_addition_spreadsheet">https://www.purplemash.com/site#app/pup/maths_activities_Y4_addition_spreadsheet</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity. Use for mental maths practice and testing.	<a href="https://www.purplemash.com/#app/diys/2quiz">https://www.purplemash.com/#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>


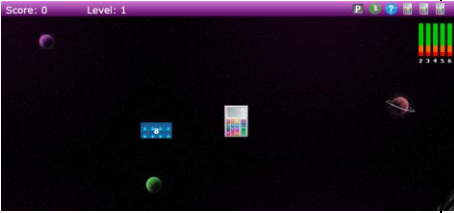
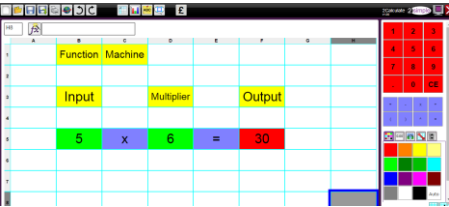
	<p><b>Bond Bubbles</b></p> <p>Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge: Up to 20, 200 and finally 400.</p>	<p><a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a></p> 	<p>Use Bond Bubbles Challenge B and levels 8-12.</p>
	<p><b>Funky Platform</b></p> <p>Make the number on the calculator equal the to the target number by jumping on the SUM platforms. Gain bonus points by doing this in as few moves as possible.</p>	<p><a href="https://www.purplemash.com/site#app/games/funkyplatform">https://www.purplemash.com/site#app/games/funkyplatform</a></p> 	<p>Three levels of challenge that increases the complexity of the numbers used and the speed. Use challenge B and levels 4 upwards</p>
	<p><b>2Race</b></p> <p>Set up multiplayer games. Choose your track type and question types; pre-set choices include:</p> <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p>

	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p><b><u>2Calculate Lessons:</u></b> Two Number Test Counting Machine 1 &amp; 2 Sequences Magic Squares</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>
	<p><b><u>2Calculate Random number additions example</u></b></p>	<p><a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_addition_spreadsheet">https://www.purplemash.com/#app/pup/maths_activities_Y4_addition_spreadsheet</a></p>	<p>Use 2Calculate random number tool to create problems for the children to solve. Set these as 2dos.</p> 
	<p><b><u>A-Fish-Metic</u></b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> 	





Number – multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>Recognise and use factor pairs and commutativity in mental calculations.</li> <li>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li> <li>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_tables</a>
	<p>Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division</a></p> <p>Activities listed here are for Y4, use activities for other year groups to review and revise areas.</p>	Multiplication Pairs	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_multiplication_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y4_multiplication_pairs</a>
		Multiplication quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_multiplication_quiz">https://www.purplemash.com/#app/pup/maths_activities_Y4_multiplication_quiz</a>
		Multiplication facts spreadsheet	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_spreadsheet">https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_spreadsheet</a>
		Multiplication fact pairs	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_pairs_2">https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_pairs_2</a>
		Multiplication Quiz	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_quiz_2">https://www.purplemash.com/app/pup/maths_activities_Y4_multiplication_quiz_2</a>
		Using Known Facts 1	<a href="https://www.purplemash.com/site#app/pup/maths_usingknowfacts_L4">https://www.purplemash.com/site#app/pup/maths_usingknowfacts_L4</a>
		Using Known Facts 2	<a href="https://www.purplemash.com/site#app/pup/maths_usingknowfacts2_L4">https://www.purplemash.com/site#app/pup/maths_usingknowfacts2_L4</a>
		Dividing By 10 – 2Calcualte	<a href="https://www.purplemash.com/site#app/pup/maths_usingdivisionby10_L4">https://www.purplemash.com/site#app/pup/maths_usingdivisionby10_L4</a>


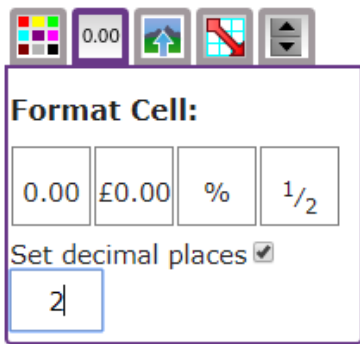
connected to m objects.			
		Dividing By 10 – 2Quiz	<a href="https://www.purplemash.com/site#app/pup/maths_usingdivisionby102_L4">https://www.purplemash.com/site#app/pup/maths_usingdivisionby102_L4</a>
		Word Problems	<a href="https://www.purplemash.com/site#app/pup/maths_wordproblems_L4">https://www.purplemash.com/site#app/pup/maths_wordproblems_L4</a>
	<b>Table Toons</b> The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x	<a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a> 	 Watch the help video from within Table Toons to find out how to make full use of this tool. <a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>
	<b>Dividers</b> Divide the numbers before they reach the calculator by firing factors at them. Three levels of challenge that	<a href="https://www.purplemash.com/site#app/games/dividers">https://www.purplemash.com/site#app/games/dividers</a>	Use Challenge A and B. You can change the level using the teachers tab at the top of the screen.

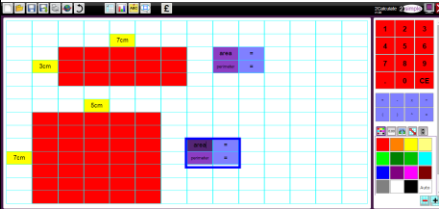
	increases the complexity of the numbers used and the speed.		
	<p><b>Factoroids</b> Break down the factors into equal parts. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site/app/games/factoroids">https://www.purplemash.com/site/app/games/factoroids</a></p> 	Use Challenge A and B. You can change the level using the teachers tab at the top of the screen
	<p><b>2Calculate Spreadsheets</b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities to set as 2dos.</p> <p><b>2Calculate Lessons:</b> Counting Machine 1 &amp; 2 Sequences</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p> <p>Ask the children to create their own number machine spreadsheet.</p>
	<p><b>A-Fish-Metic</b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p>	



### Level 3 multiplication



Number – Fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Recognise and show, using diagrams, families of common equivalent fractions.</li> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</li> <li>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> <li>Add and subtract fractions with the same denominator</li> <li>Recognise and write decimal equivalents of any number of tenths or hundredths.</li> <li>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</li> </ul>	<b>Use of Mathematics printable resources</b>	Fraction Walls	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_fractions</a>
	<b>Fraction Wall</b> Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.	<a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a> 	Use Challenge A, Levels 2-4. You can change the level using the teachers tab at the top of the screen.
	<b>Fractonio's Pizzeria</b> Develop fraction skills with 3 levels of difficulty.	<a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a> Level 2: Pizza Master 	<b>Level 1:</b> Pizza Rookie asks the children to use simple fractions to create a pizza. <b>Level 2:</b> Pizza Master encourages the children to use mixed fractions and <b>level 3:</b> Pizza King converts fractions into percentages.
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a>	Tenths and Hundredths Pairs	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_tenths_hundredths">https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_tenths_hundredths</a>
		Fraction Quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_fraction_equivalence">https://www.purplemash.com/#app/pup/maths_activities_Y3_fraction_equivalence</a>
		Decimals and fractions quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_and_decimals">https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_and_decimals</a>
		Rounding spreadsheet	<a href="https://www.purplemash.com/#app/pup/2calc_rounding">https://www.purplemash.com/#app/pup/2calc_rounding</a>
		Rounding placing activity	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_rounding">https://www.purplemash.com/#app/pup/maths_activities_Y4_rounding</a>

<ul style="list-style-type: none"> <li>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.</li> <li>Round decimals with one decimal place to the nearest whole number.</li> <li>Compare numbers with the same number of decimal places up to two decimal places.</li> <li>Solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ul>		Comparing fractions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_compare">https://www.purplemash.com/#app/pup/maths_activities_Y4_fractions_compare</a>
		Comparing decimals	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_compare_decimals">https://www.purplemash.com/app/pup/maths_activities_Y4_compare_decimals</a>
		Hundredths	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_fractions_hundredths">https://www.purplemash.com/app/pup/maths_activities_Y4_fractions_hundredths</a>
		Mixed & Improper Fractions – Sort	<a href="https://www.purplemash.com/site#app/pup/maths_mixedNumber_L4">https://www.purplemash.com/site#app/pup/maths_mixedNumber_L4</a>
		Mixed & Improper Fractions – Pair	<a href="https://www.purplemash.com/site#app/pup/maths_mixedNumber2_L4">https://www.purplemash.com/site#app/pup/maths_mixedNumber2_L4</a>
	<b>2DIY - Placing</b> Place numbers or objects in their correct place.	<a href="https://www.purplemash.com/site#app/tools/2pairspm">https://www.purplemash.com/site#app/tools/2pairspm</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a> Round numbers with one decimal place to the nearest whole number.
	<b>2Calculate</b> Explore formatting with numbers of decimal places; relate to rounding. Explore formatting as fractions. Convert to decimals and multiply by 10 or 100. Use the  tool to compare fractions and decimals.		<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a>

Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li> <li>Find the area of rectilinear shapes by counting squares.</li> <li>Estimate, compare and calculate different measures, including money in pounds and pence</li> <li>Read, write and convert time between analogue and digital 12- and 24-hour clocks.</li> <li>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul>	<b>Use of Mathematics printable resources</b>	Clock proformas, days of the week, months of the year resources.	<a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/printable_resources_maths_time</a>
	<b>Conversions</b> <b>2Calculate Spreadsheets</b> Create a conversion tool; see Upper KS2 Lesson – Miles to Kilometers. Apply this to other units as well.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Perimeter</b> <b>2Calculate Spreadsheets</b> Create a spreadsheet for pupils to record the lengths and widths of 2D shapes and create formulae to calculate perimeter (and area).	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all</a>	Convert units of measure	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert</a>
		Perimeter	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_perimeters">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_perimeters</a>
		Convert between different units of measure quiz	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert_2">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert_2</a>
		Area of shapes	<a href="https://www.purplemash.com/site#app/pup/maths_compobj_L4">https://www.purplemash.com/site#app/pup/maths_compobj_L4</a>


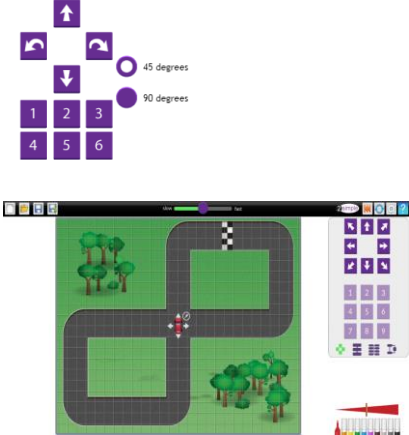

	<p><b>Area</b>  <b>2Calculate Spreadsheets</b>            Use ready-made activities Sheep Shapes (lower KS2) and Area (Upper KS2).</p>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<p><b>Money</b>  <b>2Calculate Spreadsheets</b>            Use of the money images and currency formatting of cells to explore mathematics with money and calculate change. Use images to create a virtual shop and set simulated shopping tasks.</p>	<p><a href="https://www.purplemash.com/#app/tools/2dragmulti">https://www.purplemash.com/#app/tools/2dragmulti</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a></p>
	<p><b>Financial Capability activities</b>            Aimed at Y1-6 a collection of a variety of activities</p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a></p>	<p><a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a></p>
	<p><b>Time</b>  <b>Ready-made activities in</b>  <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic">https://www.purplemash.com/#tab/pm-home/maths/measures/time_topic</a></p>	Time Conversions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions</a>
		Clock faces	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_1">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_1</a>
		Telling the time	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_2">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_2</a>
		Pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_clock_faces_pairs</a>
		Years and Months	<a href="https://www.purplemash.com/site#app/pup/maths_converttime_L4">https://www.purplemash.com/site#app/pup/maths_converttime_L4</a>
		Convert Between Units Of Time	<a href="https://www.purplemash.com/site#app/pup/maths_converttime2_L4">https://www.purplemash.com/site#app/pup/maths_converttime2_L4</a>
		Time Problems	<a href="https://www.purplemash.com/site#app/pup/maths_useAMPM2_L4">https://www.purplemash.com/site#app/pup/maths_useAMPM2_L4</a>




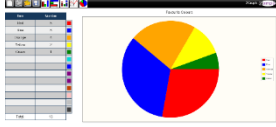
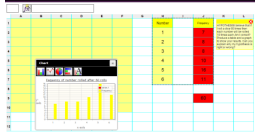
Geometry – properties of a shape			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li> <li>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</li> <li>Identify lines of symmetry in 2-D shapes presented in different orientations.</li> <li>Complete a simple symmetric figure with respect to a specific line of symmetry.</li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shapes	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape</a>
	<b>Symmetry - Paint Projects</b> 1 line of symmetry  Reflections  Textures  Rangoli patterns	<a href="https://www.purplemash.com/#app/tools/2paint">https://www.purplemash.com/#app/tools/2paint</a> <a href="https://www.purplemash.com/#app/pap/pattern/hr_reflect">https://www.purplemash.com/#app/pap/pattern/hr_reflect</a> <a href="https://www.purplemash.com/#app/pap/pattern/hr_ref_texture">https://www.purplemash.com/#app/pap/pattern/hr_ref_texture</a> <a href="https://www.purplemash.com/#tab/pm-home/themes/mathssubject/patterns_and_shapes">https://www.purplemash.com/#tab/pm-home/themes/mathssubject/patterns_and_shapes</a>	
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties">https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties</a>	3D shape pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_pairs">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_pairs</a>
		3D shape branching database	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_branching_db">https://www.purplemash.com/#app/pup/maths_activities_Y3_shape_3d_branching_db</a>
		2D shape pairs game	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_shape_classify_shapes">https://www.purplemash.com/#app/pup/maths_activities_Y4_shape_classify_shapes</a>
		Acute and Obtuse angles	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles</a>
		Lines of Symmetry	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_Lines_Symmetry">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_Lines_Symmetry</a>
		Shape slideshow	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_properties">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_properties</a>

		Name 2D shapes 2	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_properties_quiz">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_properties_quiz</a>
		Name 2D shapes 3	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_pairs">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_pairs</a>
		Ordering Angles	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles_compare">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles_compare</a>
		Regular or Irregular Polygons	<a href="https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles_compare_2">https://www.purplemash.com/app/pup/maths_activities_Y4_shape_angles_compare_2</a>
		Writing Project - Polygons	<a href="https://www.purplemash.com/#app/pup/polygons">https://www.purplemash.com/#app/pup/polygons</a>
		Writing Project - Triangle Properties	<a href="https://www.purplemash.com/#app/pup/triangles">https://www.purplemash.com/#app/pup/triangles</a>
		Writing Project - Quadrilaterals	<a href="https://www.purplemash.com/#app/pup/quadrilaterals">https://www.purplemash.com/#app/pup/quadrilaterals</a>



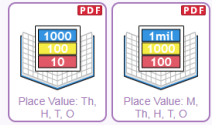
Geometry – position and direction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Describe positions on a 2-D grid as coordinates in the first quadrant.</li> <li>Describe movements between positions as translations of a given unit to the left/right and up/down.</li> <li>Plot specified points and draw sides to complete a given polygon.</li> </ul>	<p><b>2Go</b></p> <p>Use the ready-made templates to guide the object around the screen or begin to write a more complicated series of instructions</p>  <p>Change the input method in settings to extend children's knowledge of directional control. There are several Challenges for children to try.</p>	<p><a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2goleansideas">https://www.purplemash.com/#tab/teachers/guides_and_resources/2goleansideas</a></p>
	<p><b>Logo</b></p> <p>Write instructions of developing complexity to control the on screen turtle using simple logo commands</p>	<p><a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a></p> 	<p><a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a></p>
	<p><b>Use of Mathematics printable resources</b></p>		<p><a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape</a></p>


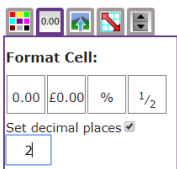
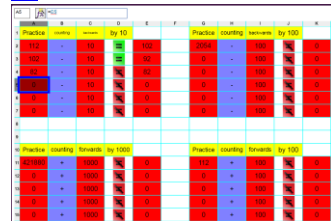
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/site#app/pup/maths_shape_position_direction">https://www.purplemash.com/site#app/pup/maths_shape_position_direction</a>	Coordinates	<a href="https://www.purplemash.com/site#app/pup/maths_girdref_L5">https://www.purplemash.com/site#app/pup/maths_girdref_L5</a>
		Coordinates 2	<a href="https://www.purplemash.com/site#app/pup/maths_gridref2_L5">https://www.purplemash.com/site#app/pup/maths_gridref2_L5</a>


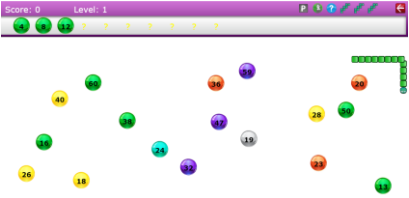
Statistics			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</li> </ul>	<b>2Investigate</b> Create databases and watch the computer move the data cards around the screen to perform meaningful searches and sorts; Perform advanced and / or searches; Make reports on the database; Update data / pictures across a network instantly	<a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a>  Use the ready-made databases and accompanying worksheets to practice problem solving using data.
	<b>2Graph</b> Create a range of bar, block, line and pie charts to show information gathered from elsewhere.	<a href="https://www.purplemash.com/#app/tools/2graph">https://www.purplemash.com/#app/tools/2graph</a> 	<a href="https://www.purplemash.com/#app/guides/2Graph_Guide">https://www.purplemash.com/#app/guides/2Graph_Guide</a>
	<b>2Calculate Spreadsheets</b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities including scaled bar charts and tables.  <b>Relevant 2Calculate Lessons:</b> Intermediate Points (Upper KS2)	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>  <p>Can be accessed by pupils from within 2Calculate tool.</p>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/site#tab/pm-home/maths/statistics">https://www.purplemash.com/site#tab/pm-home/maths/statistics</a>	Interpreting Block Graphs  Interpreting Pictograms	<a href="https://www.purplemash.com/site#app/pup/maths_Interpretdata2_L3">https://www.purplemash.com/site#app/pup/maths_Interpretdata2_L3</a>  <a href="https://www.purplemash.com/site#app/pup/maths_evaluate1_L4">https://www.purplemash.com/site#app/pup/maths_evaluate1_L4</a>

# Year 5

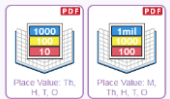

## Number – number and place value



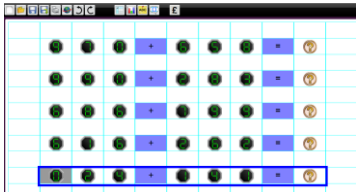
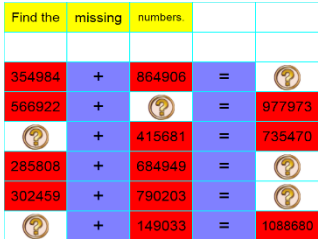
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.</li> <li>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.</li> <li>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</li> <li>Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</li> <li>Solve number problems and practical problems that involve all of the above.</li> <li>Read Roman numerals to 1000 (M) and recognise</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards, place value	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Roman Numerals	<a href="https://www.purplemash.com/#app/lessonplans/info/printables_math_templates_roman">https://www.purplemash.com/#app/lessonplans/info/printables_math_templates_roman</a>
		Place Value 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
	<p>Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a></p> <p>Listed are those designed for Y5, look at previous years resources for revision of topics</p>	Numbers to 1,000,000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_large_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y5_large_numbers</a>
		Roman Numerals	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_roman_numerals">https://www.purplemash.com/#app/pup/maths_activities_Y5_roman_numerals</a>
		Multiples of 6,7,9,25,1000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_multiples">https://www.purplemash.com/#app/pup/maths_activities_Y4_multiples</a>
		Thousands	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_thousands">https://www.purplemash.com/#app/pup/maths_activities_Y4_place_value_thousands</a>
		Rounding spreadsheet	<a href="https://www.purplemash.com/#app/pup/2calc_rounding">https://www.purplemash.com/#app/pup/2calc_rounding</a>
		Counting in steps of powers of ten spreadsheet	<a href="https://www.purplemash.com/app/pup/maths_activities_Y5_place_value_powers">https://www.purplemash.com/app/pup/maths_activities_Y5_place_value_powers</a>
		Rounding to nearest 100	<a href="https://www.purplemash.com/site#app/pup/maths_useestimationandrounding1_L5">https://www.purplemash.com/site#app/pup/maths_useestimationandrounding1_L5</a>
		Rounding to Estimate	<a href="https://www.purplemash.com/site#app/pup/maths_useestimationandrounding3_L5">https://www.purplemash.com/site#app/pup/maths_useestimationandrounding3_L5</a>

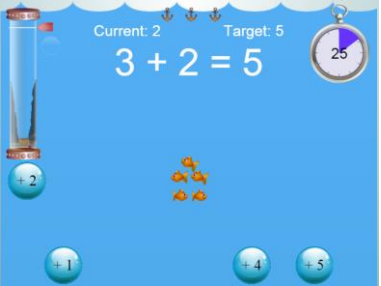
years written in Roman numerals.		Comparing and Ordering Decimals	<a href="https://www.purplemash.com/site#app/pup/maths_Compareorderrepresentdecimals_L5">https://www.purplemash.com/site#app/pup/maths_Compareorderrepresentdecimals_L5</a>																																																
		Locating Decimals – Number line	<a href="https://www.purplemash.com/site#app/pup/maths_locatingdecimalsonnumberline_L5">https://www.purplemash.com/site#app/pup/maths_locatingdecimalsonnumberline_L5</a>																																																
		Number Sequences	<a href="https://www.purplemash.com/site#app/pup/maths_describecontinuepatterns1_L5">https://www.purplemash.com/site#app/pup/maths_describecontinuepatterns1_L5</a>																																																
		<b>2Calculate Place Value Spreadsheets.</b> Help children recognise the place value of each digit. Use as a whiteboard resource or for individuals to challenge and test themselves.	Thousands, Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU">https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU</a>																																																
		<b>2-Player place value game</b>	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_pv_game">https://www.purplemash.com/#app/pup/maths_activities_Y4_pv_game</a>																																																
	<b>2Calculate</b> <ul style="list-style-type: none"><li>• Create activities using 2Calculate set as 2dos. Use the  tool to verify their answers. Include negative numbers through zero.</li><li>• Explore formatting with numbers of decimal places; and rounding.</li></ul>	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a>  <table><thead><tr><th>Number</th><th>Round to nearest 1000</th><th>Round to nearest 100</th><th>Round to nearest 10</th><th>Round to nearest 1</th><th>Round to 1 d.p.</th><th>Round to 2 d.p.</th><th>Round to 3 d.p.</th></tr></thead><tbody><tr><td>57873.58734039</td><td>58000</td><td>57900</td><td>57870</td><td>57874</td><td>57874.0</td><td>57873.99</td><td>57873.986</td></tr><tr><td>4567.89450339</td><td>5000</td><td>4600</td><td>4570</td><td>4568</td><td>4567.9</td><td>4567.89</td><td>4567.894</td></tr><tr><td>678.084000000</td><td>1000</td><td>700</td><td>680</td><td>678</td><td>678.1</td><td>678.06</td><td>678.064</td></tr><tr><td>345.500000000</td><td>0</td><td>100</td><td>350</td><td>346</td><td>345.5</td><td>345.50</td><td>345.500</td></tr><tr><td>2.347650000</td><td>0</td><td>0</td><td>0</td><td>2</td><td>2.3</td><td>2.35</td><td>2.348</td></tr></tbody></table>	Number	Round to nearest 1000	Round to nearest 100	Round to nearest 10	Round to nearest 1	Round to 1 d.p.	Round to 2 d.p.	Round to 3 d.p.	57873.58734039	58000	57900	57870	57874	57874.0	57873.99	57873.986	4567.89450339	5000	4600	4570	4568	4567.9	4567.89	4567.894	678.084000000	1000	700	680	678	678.1	678.06	678.064	345.500000000	0	100	350	346	345.5	345.50	345.500	2.347650000	0	0	0	2	2.3	2.35	2.348
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345.500000000	0	100	350	346	345.5	345.50	345.500																																												
2.347650000	0	0	0	2	2.3	2.35	2.348																																												
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"><li>• One less/more than</li></ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>																																																

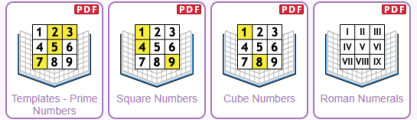
	<ul style="list-style-type: none"> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>		
	<p>Game <b>Sequence Snake:</b> Eat the numbered balls to complete the sequence. Three levels of challenge that increases the complexity of the numbers used and the speed. – use challenge C.</p>	<p><a href="https://www.purplemash.com/#app/games/seqsnake">https://www.purplemash.com/#app/games/seqsnake</a></p> 	
	<p>Use 2DIY Game Sequence Snake to make a game suited to your pupils.</p>	<p><a href="https://www.purplemash.com/site#app/tools/2diy/Snake">https://www.purplemash.com/site#app/tools/2diy/Snake</a></p>	<p>Watch the help video in the app for a quick overview of how to do this.</p>






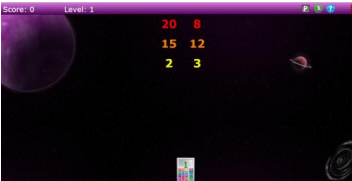
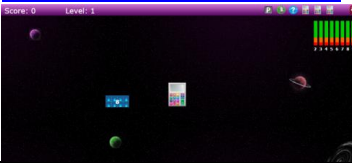
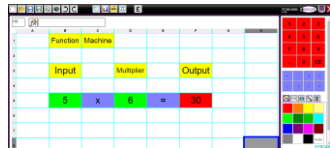

Number – addition and subtraction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</li> <li>Add and subtract numbers mentally with increasingly large numbers.</li> <li>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
		Place Value 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_maths_templates</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity. Use for mental maths practice and testing.	<a href="https://www.purplemash.com/#app/diyjs/2quiz">https://www.purplemash.com/#app/diyjs/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>One less/more than</li> <li>Odd/eve</li> <li>Comparison</li> <li>Number bond</li> <li>Addition</li> <li>Subtraction</li> <li>Multiplication</li> <li>Division</li> <li>Times tables</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>



	<p><b><u>Bond Bubbles</u></b></p> <p>Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge: Up to 20, 200 and finally 400.</p>	<p><a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a></p> 	<p>Use Bond Bubbles Challenge C.</p>																																			
	<p><b><u>Funky Platform</u></b></p> <p>Make the number on the calculator equal the to the target number by jumping on the SUM platforms. Gain bonus points by doing this in as few moves as possible.</p>	<p><a href="https://www.purplemash.com/site#app/games/funkyplatform">https://www.purplemash.com/site#app/games/funkyplatform</a></p> 	<p>Three levels of challenge that increases the complexity of the numbers used and the speed.</p> <p>Use challenge C.</p>																																			
	<p><b><u>2Calculate Random number sums example</u></b></p>	<p><a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_addition_spreadsheet">https://www.purplemash.com/#app/pup/maths_activities_Y5_addition_spreadsheet</a></p>	<p>Use 2Calculate random number tool to create problems for the children to solve. Set these as 2dos.</p> 																																			
	<p><b><u>2Calculate Missing Numbers</u></b></p>	<p><a href="https://www.purplemash.com/site#app/pup/maths_Efficientmental1_L5">https://www.purplemash.com/site#app/pup/maths_Efficientmental1_L5</a></p>	 <table><tr><th>Find the</th><th>missing</th><th>numbers</th><th></th><th></th></tr><tr><td>354984</td><td>+</td><td>864906</td><td>=</td><td>?</td></tr><tr><td>566922</td><td>+</td><td>?</td><td>=</td><td>977973</td></tr><tr><td>?</td><td>+</td><td>415681</td><td>=</td><td>735470</td></tr><tr><td>285808</td><td>+</td><td>684949</td><td>=</td><td>?</td></tr><tr><td>302459</td><td>+</td><td>790203</td><td>=</td><td>?</td></tr><tr><td>?</td><td>+</td><td>149033</td><td>=</td><td>1088680</td></tr></table>	Find the	missing	numbers			354984	+	864906	=	?	566922	+	?	=	977973	?	+	415681	=	735470	285808	+	684949	=	?	302459	+	790203	=	?	?	+	149033	=	1088680
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	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p><b><u>2Calculate Lessons:</u></b> Number Stories Making Formulae</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>
	<p><b><u>A-Fish-Metic</u></b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> 	

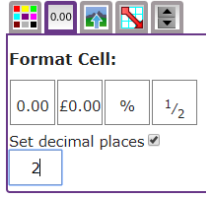
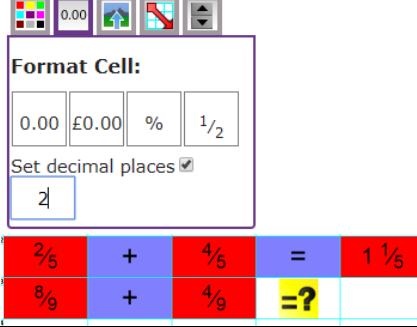
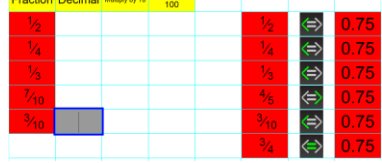
Number – multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li> <li>Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.</li> <li>Establish whether a number up to 100 is prime and recall prime numbers up to 19.</li> <li>Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.</li> <li>Multiply and divide numbers mentally drawing upon known facts.</li> <li>Divide numbers up to 4 digits by a one-digit number using the formal written method of short</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Times Tables	<a href="https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/site#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Prime, Square and Cubed numbers Special Numbers: 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_multiplication_division</a> Activities listed here are for Y5, use activities for other year groups to review and revise areas.	Prime Numbers	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_prime_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y5_prime_numbers</a>
		Prime Numbers 2	<a href="https://www.purplemash.com/site#app/pup/maths_identcomposite_L6">https://www.purplemash.com/site#app/pup/maths_identcomposite_L6</a>
		Decomposing large numbers	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_decompose_large_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y5_decompose_large_numbers</a>
		Multiplication of HTU x U	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_multiplication">https://www.purplemash.com/#app/pup/maths_activities_Y5_multiplication</a>
		Square and cube numbers	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_square_cube_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y5_square_cube_numbers</a>
		Multiplying and dividing by powers of 10	<a href="https://www.purplemash.com/site#app/pup/maths_activities_Y5_place_value_powers">https://www.purplemash.com/site#app/pup/maths_activities_Y5_place_value_powers</a>

<p>division and interpret remainders appropriately for the context.</p> <ul style="list-style-type: none"> <li>• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li> <li>• Recognise and use square numbers and cube numbers, and the notation for squared (<math>^2</math>) and cubed (<math>^3</math>).</li> <li>• Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</li> </ul>		Multiplying Numbers	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton_L5</a>
		Multiplication HTU x U	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton3_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton3_L5</a>
		Multiplying HTU x TU	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton2_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingmultiplicaiton2_L5</a>
		Multiplication 2 Digit	<a href="https://www.purplemash.com/site#app/pup/maths_Efficientmental2_L5">https://www.purplemash.com/site#app/pup/maths_Efficientmental2_L5</a>
		Division with remainders	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision_L5</a>
		Division whole number	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision2_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision2_L5</a>
		Division by a single number	<a href="https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision3_L5">https://www.purplemash.com/site#app/pup/maths_solveproblemsinvolvingdivision3_L5</a>
		Division questions	<a href="https://www.purplemash.com/site#app/pup/maths_findunknownquantitiesDivision_L5">https://www.purplemash.com/site#app/pup/maths_findunknownquantitiesDivision_L5</a>
<ul style="list-style-type: none"> <li>• Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</li> <li>• Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>	<p><b>Table Toons</b></p> <p>The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x</p>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a></p> 	 Watch the help video from within Table Toons to find out how to make full use of this tool. <a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a>
	<p><b>2Race</b></p> <p>Set up multiplayer games. Choose your track type and question types; pre-set choices include:</p> <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> </ul>	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p> 	<p><a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a></p>

	<ul style="list-style-type: none"> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>		
	<p><b>Dividers</b></p> <p>Divide the numbers before they reach the calculator by firing factors at them. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site#app/games/dividers">https://www.purplemash.com/site#app/games/dividers</a></p> 	<p>Use Challenge C. You can change the level using the teachers tab at the top of the screen.</p>
	<p><b>Factoroids</b></p> <p>Break down the factors into equal parts. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site#app/games/factoroids">https://www.purplemash.com/site#app/games/factoroids</a></p> 	<p>Use Challenge C. You can change the level using the teachers tab at the top of the screen</p>
	<p><b>2Calculate Spreadsheets</b></p> <p>Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p>Create your own activities to set as 2dos.</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> 	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p> <p>Ask the children to create their own number machine spreadsheet.</p>
	<p><b>2Calculate</b></p> <p>Create activities using 2Calculate set as 2dos using the  tool to verify their answers.</p>	<p><a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a></p>	<p><a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a></p>

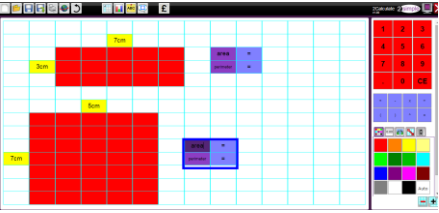
Number – Fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Compare and order fractions whose denominators are all multiples of the same number.</li> <li>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</li> <li>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements <math>&gt; 1</math> as a mixed number [for example, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}</math>]</li> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</li> <li>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li> </ul>	<b>Use of Mathematics printable resources</b>	Fraction Walls	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_fractions</a>
	<b>Fraction Wall</b> Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.	<a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a> 	Use Challenge C. You can change the level using the teachers tab at the top of the screen.
	<b>Fractonio's Pizzeria</b> Develop fraction skills with 3 levels of difficulty.	<a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a> Level 2: Pizza Master 	Level 1: Pizza Rookie asks the children to use simple fractions to create a pizza. Level 2: Pizza Master encourages the children to use mixed fractions and level 3: Pizza King converts fractions into percentages.
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a>	Tenths and Hundredths Pairs	<a href="https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_tenths_hundredths">https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_tenths_hundredths</a>
		Decimals and fractions quiz	<a href="https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_and_decimals">https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_and_decimals</a>
		Comparing fractions	<a href="https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_compare">https://www.purplemash.com/#app/pup/maths/activities/Y4_fractions_compare</a>
		Rounding spreadsheet	<a href="https://www.purplemash.com/#app/pup/2calc_rounding">https://www.purplemash.com/#app/pup/2calc_rounding</a>
		3 decimal places	<a href="https://www.purplemash.com/app/pup/maths/activities/Y5_3_decimal_places">https://www.purplemash.com/app/pup/maths/activities/Y5_3_decimal_places</a>

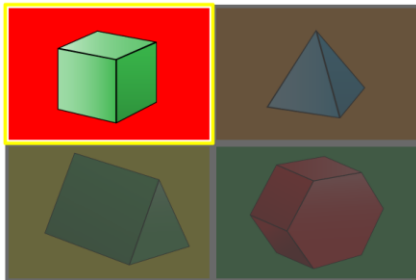



<ul style="list-style-type: none"> <li>Read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>].</li> <li>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</li> <li>Round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>Read, write, order and compare numbers with up to three decimal places.</li> <li>Solve problems involving number up to three decimal places.</li> <li>Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.</li> <li>Solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25.</li> </ul>		Compare fractions	<a href="https://www.purplemash.com/app/pup/maths_activities_Y5_compare_fractions">https://www.purplemash.com/app/pup/maths_activities_Y5_compare_fractions</a>
		Rounding To Nearest Whole No	<a href="https://www.purplemash.com/site#app/pup/maths_useestimationandrounding2_L5">https://www.purplemash.com/site#app/pup/maths_useestimationandrounding2_L5</a>
		Fraction Equations	<a href="https://www.purplemash.com/site#app/pup/maths_modellingsolvingproblems_L5">https://www.purplemash.com/site#app/pup/maths_modellingsolvingproblems_L5</a>
		Fraction Calculations	<a href="https://www.purplemash.com/site#app/pup/maths_modellingsolvingproblems2_L5">https://www.purplemash.com/site#app/pup/maths_modellingsolvingproblems2_L5</a>
		Comparing Mixed Numbers	<a href="https://www.purplemash.com/site#app/pup/maths_unitfractions_L5">https://www.purplemash.com/site#app/pup/maths_unitfractions_L5</a>
		Mixed and Improper Fractions – Sort	<a href="https://www.purplemash.com/site#app/pup/maths_mixedNumber_L4">https://www.purplemash.com/site#app/pup/maths_mixedNumber_L4</a>
		Mixed and Improper Fraction – Pair	<a href="https://www.purplemash.com/site#app/pup/maths_mixedNumber2_L4">https://www.purplemash.com/site#app/pup/maths_mixedNumber2_L4</a>
	<b>2Calculate</b> Explore formatting with numbers of decimal places; relate to rounding.	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers_guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers_guides_and_resources/2calculate_resources</a>
	<b>2Calculate</b> Explore formatting as fractions and percentages. Convert to decimals and multiply by 10 or 100.	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers_guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers_guides_and_resources/2calculate_resources</a> 




		<div> <div>4</div> <div>x</div> <div><math>\frac{4}{5}</math></div> <div>=</div> <div><math>3\frac{1}{5}</math></div> </div> <div> <div>9</div> <div>x</div> <div><math>\frac{4}{9}</math></div> <div>=?</div> </div>	<div> <div>0.01</div> <div><math>\frac{1}{100}</math></div> </div> <div> <div>1.05</div> <div><math>1\frac{1}{20}</math></div> </div> <div> <div><math>\frac{1}{2}</math></div> <div>+</div> <div><math>\frac{7}{10}</math></div> <div>=</div> <div><math>1\frac{1}{5}</math></div> </div> <div> <div>0.01</div> <div>0.02</div> <div>0.03</div> <div>0.04</div> <div>0.05</div> <div>0.06</div> <div>0.07</div> <div>0.08</div> <div>0.09</div> </div> <div> <div><math>\frac{1}{100}</math></div> <div><math>\frac{1}{50}</math></div> <div><math>\frac{3}{100}</math></div> <div><math>\frac{1}{25}</math></div> <div><math>\frac{1}{20}</math></div> <div><math>\frac{3}{50}</math></div> <div><math>\frac{7}{100}</math></div> <div><math>\frac{2}{25}</math></div> <div><math>\frac{9}{100}</math></div> </div> <div> <div>1</div> <div>+</div> <div>100</div> <div>=</div> <div>0.01</div> <div>=</div> <div>1%</div> <div>=</div> <div><math>\frac{1}{100}</math></div> </div> <div> <div>20</div> <div>+</div> <div>100</div> <div>=</div> <div>0.2</div> <div>=</div> <div>20%</div> <div>=</div> <div><math>\frac{1}{5}</math></div> </div> <div> <div>50</div> <div>+</div> <div>100</div> <div>=</div> <div>0.5</div> <div>=</div> <div>50%</div> <div>=</div> <div><math>\frac{1}{2}</math></div> </div> <div> <div>75</div> <div>+</div> <div>100</div> <div>=</div> <div>0.75</div> <div>=</div> <div>75%</div> <div>=</div> <div><math>\frac{3}{4}</math></div> </div> <div> <div>36</div> <div>+</div> <div>100</div> <div>=</div> <div>0.36</div> <div>=</div> <div>36%</div> <div>=</div> <div><math>\frac{9}{25}</math></div> </div>
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Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</li> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</li> <li>Measure and calculate the perimeter of composite</li> </ul>	<b>Conversions</b> <b>2Calculate Spreadsheets</b> Create a conversion tool; see Upper KS2 Lesson – Miles to Kilometers. Apply this to other units as well.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides%20and%20resources/2calculate%20resources">https://www.purplemash.com/#tab/teachers/guides and resources/2calculate resources</a>
	<b>Perimeter</b> <b>2Calculate Spreadsheets</b> Create a spreadsheet for pupils to record the lengths and widths of 2D shapes and create formulae to calculate perimeter (and area). Create composite shapes and apply these formulae.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/#tab/teachers/guides%20and%20resources/2calculate%20resources">https://www.purplemash.com/#tab/teachers/guides and resources/2calculate resources</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/#tab/pm-home/maths/measures/maths measures all</a>	Convert units of measure	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert">https://www.purplemash.com/#app/pup/maths activities Y4 measures convert</a>
		Units of Measurement	<a href="https://www.purplemash.com/site#app/pup/maths_recognisingmeasure_L5">https://www.purplemash.com/site#app/pup/maths recognisingmeasure L5</a>
		Perimeter	<a href="https://www.purplemash.com/#app/pup">https://www.purplemash.com/#app/pup</a>


<p>rectilinear shapes in centimetres and metres.</p> <ul style="list-style-type: none"> <li>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (<math>\text{cm}^2</math>) and square metres (<math>\text{m}^2</math>) and estimate the area of irregular shapes.</li> <li>Estimate volume [for example, using <math>1 \text{ cm}^3</math> blocks to build cuboids (including cubes)] and capacity [for example, using water].</li> <li>Solve problems involving converting between units of time.</li> <li>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</li> </ul>			<a href="/maths_activities_Y5_measures_perimeter">/maths_activities_Y5_measures_perimeter</a>
	Area		<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_area">https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_area</a>
	<b>Area</b> <b>2Calculate Spreadsheets</b> Use ready-made activities Sheep Shapes (lower KS2) and Area (Upper KS2).	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers_guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers_guides_and_resources/2calculate_resources</a>
	<b>2Design and Make</b> Create annotated cuboids using 2Design & Make with size information in the nets; children can calculate the volumes.	<a href="https://www.purplemash.com/#app/tools/2dam">https://www.purplemash.com/#app/tools/2dam</a> 	<a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a>
	<b>Financial Capability activities</b> Aimed at Y1-6 a collection of a variety of activities 	<a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a>	<a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a>
	<b>Time</b> <b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-">https://www.purplemash.com/#tab/pm-</a>	Time Conversions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions">https://www.purplemash.com/#app/pup/maths_activities_Y3_time_conversions</a>

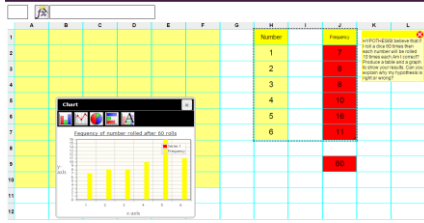
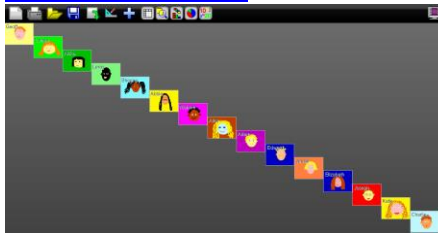
	<a href="https://www.purplemash.com/site#app/pup/maths_measures/time_topic">home/maths/measures/time_topic</a>	12 Hour and 24 Hour Conversions	<a href="https://www.purplemash.com/site#app/pup/maths_comptime_L5">https://www.purplemash.com/site#app/pup/maths_comptime_L5</a>
		Timetables	<a href="https://www.purplemash.com/site#app/pup/maths_compare12_L5">https://www.purplemash.com/site#app/pup/maths_compare12_L5</a>



Geometry – properties of a shape			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</li> <li>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</li> <li>Draw given angles, and measure them in degrees (<math>^{\circ}</math>).</li> <li>Identify:               <ul style="list-style-type: none"> <li>Angles at a point and one whole turn (total <math>360^{\circ}</math>)</li> <li>Angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^{\circ}</math>).</li> <li>Other multiples of <math>90^{\circ}</math>.</li> </ul> </li> <li>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</li> <li>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shapes	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape</a>
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties">https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties</a>	Angles	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_angles">https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_angles</a>
		3D Shapes	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_3d">https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_3d</a>
		Estimate angles	<a href="https://www.purplemash.com/app/pup/maths_activities_Y5_shape_estimate_angles">https://www.purplemash.com/app/pup/maths_activities_Y5_shape_estimate_angles</a>
		Types of angles	<a href="https://www.purplemash.com/app/pup/maths_activities_Y5_shape_estimate_angles_2">https://www.purplemash.com/app/pup/maths_activities_Y5_shape_estimate_angles_2</a>
	<b>Logo</b> Explore angles using the Logo turtle.	<a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a> 	<a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a>

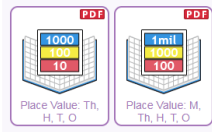
## Geometry – position and direction

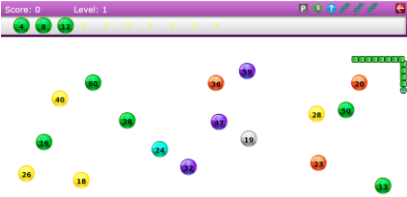

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</li> </ul>	<p><b>Logo</b></p> <p>Use Logo to draw a simple shape. Using the Pen Up and Pen Down translate the shape (10,2)</p>	<p><a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a></p> 	<p><a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a></p>

Statistics			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Solve comparison, sum and difference problems using information presented in a line graph.</li> <li>Complete, read and interpret information in tables, including timetables.</li> </ul>	<p><b>2Calculate Spreadsheets</b> Includes premade lesson plans and videos to develop number problem-solving skills. Create your own activities including scaled bar charts and tables.</p> <p><b>Relevant 2Calculate Lessons:</b> Intermediate Points (Upper KS2)</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>  <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>
	<p><b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all</a></p>	<p>Timetables</p> <p>Interpreting Timetables</p>	<p><a href="https://www.purplemash.com/site#app/pup/maths_compare12_L5">https://www.purplemash.com/site#app/pup/maths_compare12_L5</a></p> <p><a href="https://www.purplemash.com/site#app/pup/maths_interpretable_L6">https://www.purplemash.com/site#app/pup/maths_interpretable_L6</a></p>
	<p><b>2Investigate</b> Create databases and watch the computer move the data cards around the screen to perform meaningful searches and sorts; Perform advanced and / or searches; Make reports on the database; Update data / pictures across a network instantly</p>	<p><a href="https://www.purplemash.com/site#app/tools/2inv">https://www.purplemash.com/site#app/tools/2inv</a></p> 	<p><a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2inv_resources</a></p> <p>Use the ready-made databases and accompanying worksheets to practice problem solving using data.</p>

# Year 6

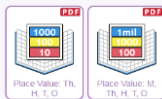
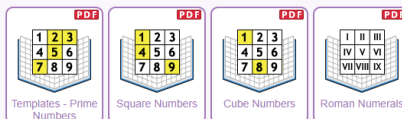
## Number – number and place value




National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</li> <li>Round any whole number to a required degree of accuracy.</li> <li>Use negative numbers in context, and calculate intervals across zero.</li> <li>Solve number and practical problems that involve all of the above.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines, 100 squares, number cards, place value	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
		Place Value 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_templates</a>
	Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a> Also look at previous years resources in this area for revision of topics	Numbers to 10,000,000	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_large_numbers">https://www.purplemash.com/#app/pup/maths_activities_Y6_large_numbers</a>
		Rounding	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_rounding">https://www.purplemash.com/#app/pup/maths_activities_Y6_rounding</a>
		Rounding spreadsheet	<a href="https://www.purplemash.com/#app/pup/2calc_rounding">https://www.purplemash.com/#app/pup/2calc_rounding</a>
		Number Lines – Placing Numbers	<a href="https://www.purplemash.com/site#app/pup/maths_usingnumberlines_L6">https://www.purplemash.com/site#app/pup/maths_usingnumberlines_L6</a>
		Negative Number Lines	<a href="https://www.purplemash.com/site#app/pup/maths_ineverydaysituations2_L6">https://www.purplemash.com/site#app/pup/maths_ineverydaysituations2_L6</a>
		Negative Numbers	<a href="https://www.purplemash.com/site#app/pup/maths_ineverydaysituations4_L6">https://www.purplemash.com/site#app/pup/maths_ineverydaysituations4_L6</a>
		Positive & Negative Integers	<a href="https://www.purplemash.com/site#app/pup/maths_ineverydaysituations3_L6">https://www.purplemash.com/site#app/pup/maths_ineverydaysituations3_L6</a>
		Negative/Positive	<a href="https://www.purplemash.com/site#app/pup/maths_ineverydaysituations1_L6">https://www.purplemash.com/site#app/pup/maths_ineverydaysituations1_L6</a>
		Problem Solving (+ - X ÷)	<a href="https://www.purplemash.com/site#app/pup/">https://www.purplemash.com/site#app/pup/</a>



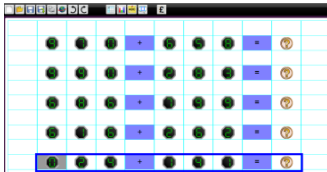
			<a href="#">maths_applyingarangeofstrategies_L6</a>
		Find the missing number (+ - X ÷)	<a href="https://www.purplemash.com/site#app/pup/maths_applyingarangestrats1_L6">https://www.purplemash.com/site#app/pup/maths_applyingarangestrats1_L6</a>
		Problems Involving Decimals	<a href="https://www.purplemash.com/site#app/pup/maths_exploring_L6">https://www.purplemash.com/site#app/pup/maths_exploring_L6</a>
		Journey Distances Decimals	<a href="https://www.purplemash.com/site#app/pup/maths_exploring1_L6">https://www.purplemash.com/site#app/pup/maths_exploring1_L6</a>
		Number Pattern Rules	<a href="https://www.purplemash.com/site#app/pup/maths_generalisation1_L6">https://www.purplemash.com/site#app/pup/maths_generalisation1_L6</a>
		Number Patterns	<a href="https://www.purplemash.com/site#app/pup/maths_generalisation2_L6">https://www.purplemash.com/site#app/pup/maths_generalisation2_L6</a>
		<b>2Calculate Place Value Spreadsheets.</b> Help children recognise the place value of each digit. Use as a whiteboard resource or for individuals to challenge and test themselves.	Thousands, Hundreds, Tens and Ones <a href="https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU">https://www.purplemash.com/#app/pup/2calc_place_value_ThHTU</a>
	<b>Game Sequence Snake:</b> Eat the numbered balls to complete the sequence. Three levels of challenge that increases the complexity of the numbers used and the speed. – use challenge C.	<a href="https://www.purplemash.com/#app/games/seqsnake">https://www.purplemash.com/#app/games/seqsnake</a> 	Use 2DIY Game Sequence Snake to make a game suited to your pupils. <a href="https://www.purplemash.com/site#app/tools/2diy/Snake">https://www.purplemash.com/site#app/tools/2diy/Snake</a> Watch the help video in the app for a quick overview of how to do this.
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"> <li>• One less/more than</li> <li>• Odd/eve</li> <li>• Comparison</li> <li>• Number bond</li> <li>• Addition</li> <li>• Subtraction</li> </ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>

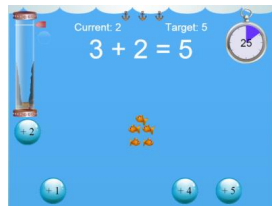
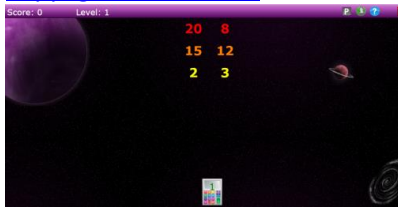
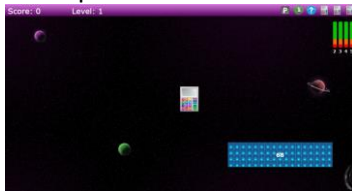




	<ul style="list-style-type: none"> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>		
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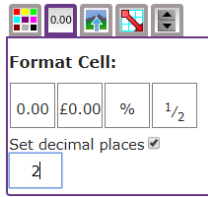
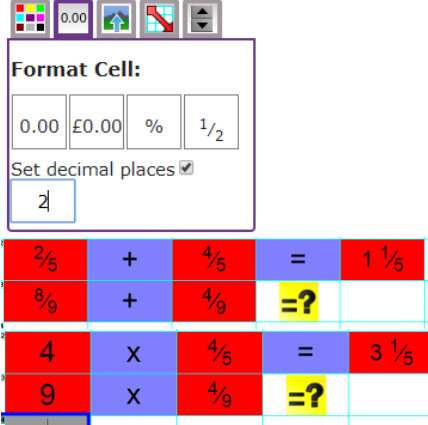
Number – addition, subtraction, multiplication and division			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</li> <li>Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.</li> <li>Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.</li> <li>Perform mental calculations, including with mixed operations and large numbers.</li> </ul>	<b>Use of Mathematics printable resources</b>	Number lines and 100 squares	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Place Value 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
		Prime, Square and Cubed numbers 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_templates</a>
	<p>Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value">https://www.purplemash.com/#tab/pm-home/maths/numbers/numbers_place_value</a></p> <p>Also look at previous years resources in this area for revision of topics</p>	Long Division	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_long_division">https://www.purplemash.com/#app/pup/maths_activities_Y6_long_division</a>
		Common Factors and Primes	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_factors">https://www.purplemash.com/#app/pup/maths_activities_Y6_factors</a>
		Multiplication – 2 by 3 Digits	<a href="https://www.purplemash.com/site#app/pup/maths_applyingarangeofstrats2_L6">https://www.purplemash.com/site#app/pup/maths_applyingarangeofstrats2_L6</a>
		Multiplication – multiple digits	<a href="https://www.purplemash.com/site#app/pup/maths_applyingarangeofstrategies2_L6">https://www.purplemash.com/site#app/pup/maths_applyingarangeofstrategies2_L6</a>
		Missing Numbers (x)	<a href="https://www.purplemash.com/site#app/pup/maths_interpretingresults2_L6">https://www.purplemash.com/site#app/pup/maths_interpretingresults2_L6</a>

<ul style="list-style-type: none"> <li>Identify common factors, common multiples and prime numbers.</li> <li>Use their knowledge of the order of operations to carry out calculations involving the four operations.</li> <li>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Mathematics – key stages 1 and 2 40 Statutory requirements.</li> <li>Solve problems involving addition, subtraction, multiplication and division.</li> <li>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</li> </ul>		Missing Numbers (x & ÷)	<a href="https://www.purplemash.com/site#app/pup/maths_interpretingresults1_L6">https://www.purplemash.com/site#app/pup/maths_interpretingresults1_L6</a>
		Multiples of 10 (x & ÷)	<a href="https://www.purplemash.com/site#app/pup/maths_multidevdecimal1_L6">https://www.purplemash.com/site#app/pup/maths_multidevdecimal1_L6</a>
		Long Multiplication	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_long_multiplication">https://www.purplemash.com/#app/pup/maths_activities_Y6_long_multiplication</a>
		Multiplying Decimals	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_multiply_decimals">https://www.purplemash.com/#app/pup/maths_activities_Y6_multiply_decimals</a>
		Mental Calculations	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_mental_calculations">https://www.purplemash.com/#app/pup/maths_activities_Y6_mental_calculations</a>
	<b>Maths Quiz</b> Generate your own maths quizzes. Test the children on +, - or X of varying complexity. Use for mental maths practice and testing.	<a href="https://www.purplemash.com/#app/diyls/2quiz">https://www.purplemash.com/#app/diyls/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>
	<b>Table Toons</b> The children develop their multiplication skills through song. The children create their own musical playlist using a range of different songs. Games consolidate these skills. Ranging from 2x to 12x	<a href="https://www.purplemash.com/#tab/pm-home/games/tabletoons">https://www.purplemash.com/#tab/pm-home/games/tabletoons</a> 	 Watch the help video from within Table Toons to find out how to make full use of this tool. <a href="https://www.purplemash.com/#app/games/mg2/tabletoons">https://www.purplemash.com/#app/games/mg2/tabletoons</a>
	<b>2Race</b> Set up multiplayer games. Choose your track type and question types; pre-set choices include: <ul style="list-style-type: none"><li>One less/more than</li><li>Odd/eve</li><li>Comparison</li><li>Number bond</li><li>Addition</li></ul>	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a> 	<a href="https://www.purplemash.com/#tab/pm-home/games/2race_all">https://www.purplemash.com/#tab/pm-home/games/2race_all</a>

	<ul style="list-style-type: none"> <li>• Subtraction</li> <li>• Multiplication</li> <li>• Division</li> <li>• Times tables</li> </ul>		
	<p><b>Bond Bubbles</b></p> <p>Aim the bubble blower by clicking near a target bubble at the top of the screen. If the total of the bubble and the one it hits are the target number the bubbles will fall. Three levels of challenge. . Up to 20, 200 and finally 400.</p>	<p><a href="http://www.purplemash.com/#games/bondbubbles">http://www.purplemash.com/#games/bondbubbles</a></p> 	<p>Use Bond Bubbles Challenge C.</p>
	<p><b>Funky Platform</b></p> <p>Make the number on the calculator equal the to the target number by jumping on the SUM platforms. Gain bonus points by doing this in as few moves as possible.</p>	<p><a href="https://www.purplemash.com/site#app/games/funkyplatform">https://www.purplemash.com/site#app/games/funkyplatform</a></p> 	<p>Three levels of challenge that increases the complexity of the numbers used and the speed.</p> <p>Use challenge C.</p>
	<p><b>2Calculate Random number sums example</b></p>	<p><a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_addition_spreadsheet">https://www.purplemash.com/#app/pup/maths_activities_Y5_addition_spreadsheet</a></p>	<p>Use 2Calculate random number tool to create problems for the children to solve. Set these as 2dos.</p> 



	<p><b><u>2Calculate Spreadsheets</u></b> Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p><b><u>2Calculate Lessons:</u></b> Number Stories Making Formulae Area</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p> <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides%20and%20resources/2calculate%20resources">https://www.purplemash.com/#tab/teachers/guides and resources/2calculate resources</a></p>
	<p><b><u>A-Fish-Metic</u></b> Develop basic number skills with 4 levels of difficulty. Levels 1 and 2 cover addition and subtraction, level 3 multiplication and level 4 advanced multiplication.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/afishmetic">https://www.purplemash.com/#app/games/mg2/afishmetic</a></p> 	
	<p><b><u>Dividers</u></b> Divide the numbers before they reach the calculator by firing factors at them. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/site#app/games/dividers">https://www.purplemash.com/site#app/games/dividers</a></p> 	<p>Use Challenge C. You can change the level using the teachers tab at the top of the screen.</p>
	<p><b><u>Factoroids</u></b> Break down the factors into equal parts. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p>Use Challenge C. You can change the level using the teachers tab at the top of the screen</p> 	<p><a href="http://www.purplemash.com/#games/factoroids">http://www.purplemash.com/#games/factoroids</a></p>

Number – Fractions			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li> <li>Compare and order fractions, including fractions <math>&gt; 1</math>.</li> <li>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</li> <li>Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>].</li> <li>Divide proper fractions by whole numbers [for example, <math>\frac{1}{3} \div 2 = \frac{1}{6}</math>].</li> <li>Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, <math>\frac{3}{8}</math>].</li> </ul>	<p><b>Use of Mathematics printable resources</b></p>	<p>Fraction Walls</p>	<p><a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/fractions">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/fractions</a></p>
	<p><b>Fraction Wall</b> Guide the falling fractions as they drop down from the top of the screen. Position the fractions so they contain a whole. Three levels of challenge that increases the complexity of the numbers used and the speed.</p>	<p><a href="https://www.purplemash.com/#app/games/fracwall">https://www.purplemash.com/#app/games/fracwall</a></p> 	<p>Use Challenge C. You can change the level using the teachers tab at the top of the screen.</p>
	<p><b>Fractonio's Pizzeria</b> Develop fraction skills with 3 levels of difficulty.</p>	<p><a href="https://www.purplemash.com/#app/games/mg2/pizza">https://www.purplemash.com/#app/games/mg2/pizza</a></p> <p>Level 2: Pizza Master</p> 	<p><b>Level 1:</b> Pizza Rookie asks the children to use simple fractions to create a pizza. <b>Level 2:</b> Pizza Master encourages the children to use mixed fractions and <b>Level 3:</b> Pizza King converts fractions into percentages.</p>
	<p>Ready-made activities in <a href="https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions">https://www.purplemash.com/#tab/pm-home/maths/numbers/number_fractions</a></p>	Fraction and Decimal Pairs	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_fractions_and_decimals">https://www.purplemash.com/#app/pup/maths_activities_Y6_fractions_and_decimals</a>
		Compare and Order fractions	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y6_fractions_order">https://www.purplemash.com/#app/pup/maths_activities_Y6_fractions_order</a>
		Writing Fractions – LCM	<a href="https://www.purplemash.com/site#app/pup/maths_composite_L6">https://www.purplemash.com/site#app/pup/maths_composite_L6</a>
		Prime Factorisation & HCF	<a href="https://www.purplemash.com/site#app/pup/maths_composite2_L6">https://www.purplemash.com/site#app/pup/maths_composite2_L6</a>

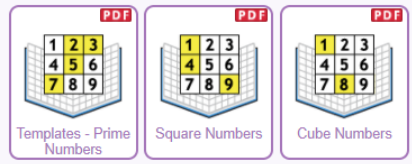
<ul style="list-style-type: none"> <li>Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.</li> <li>Multiply one-digit numbers with up to two decimal places by whole numbers.</li> <li>Use written division methods in cases where the answer has up to two decimal places.</li> <li>Solve problems which require answers to be rounded to specified degrees of accuracy.</li> <li>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</li> </ul>		Comparing Fractions	<a href="https://www.purplemash.com/site#app/pup/maths_Comparefrac1_L6">https://www.purplemash.com/site#app/pup/maths_Comparefrac1_L6</a>
		Fractions, Decimals and Percentages	<a href="https://www.purplemash.com/site#app/pup/maths_ConnectFDP_L6">https://www.purplemash.com/site#app/pup/maths_ConnectFDP_L6</a>
		Equivalent Fractions	<a href="https://www.purplemash.com/site#app/pup/maths_demoequivalence_L6">https://www.purplemash.com/site#app/pup/maths_demoequivalence_L6</a>
		Fraction Calculations	<a href="https://www.purplemash.com/site#app/pup/maths_recognising3rd_L6">https://www.purplemash.com/site#app/pup/maths_recognising3rd_L6</a>
		Fraction Sentences	<a href="https://www.purplemash.com/site#app/pup/maths_addsubfractions1_L6">https://www.purplemash.com/site#app/pup/maths_addsubfractions1_L6</a>
		Related Denominators	<a href="https://www.purplemash.com/site#app/pup/maths_addsubfractions2_L6">https://www.purplemash.com/site#app/pup/maths_addsubfractions2_L6</a>
	<b>2Calculate</b> Explore formatting with numbers of decimal places; relate to rounding.	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>2Calculate</b> Explore formatting as fractions and percentages. Convert to decimals and multiply by 10 or 100.	<a href="https://www.purplemash.com/site#app/tools/2Calculate">https://www.purplemash.com/site#app/tools/2Calculate</a> 	<a href="https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/site#tab/teachers/guides_and_resources/2calculate_resources</a> 

			1	÷	100	=	0.01	=	1%	=	$\frac{1}{100}$
			20	÷	100	=	0.2	=	20%	=	$\frac{1}{5}$
			50	÷	100	=	0.5	=	50%	=	$\frac{1}{2}$
			75	÷	100	=	0.75	=	75%	=	$\frac{3}{4}$
			36	÷	100	=	0.36	=	36%	=	$\frac{9}{25}$

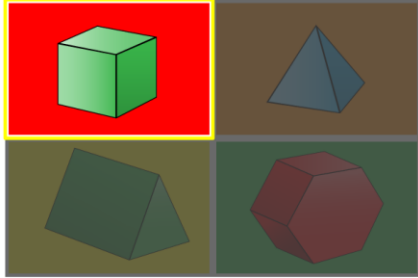



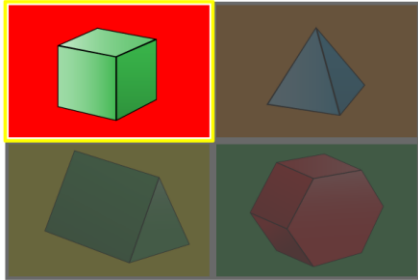
Ratio and proportion			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</li> <li>Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.</li> <li>Solve problems involving similar shapes where the scale factor is known or can be found.</li> <li>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li> </ul>	<p><b>Conversions</b>  <b>2Calculate Spreadsheets</b>            Create a conversion tool; see Upper KS2 Lesson – Miles to Kilometers.</p> <p>Use Converting Money lesson – find missing values using conversion rates.</p> <p>Use 25% off lesson to practice calculating percentages of amounts.</p>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<p><b>Financial Capability activities</b>            Aimed at Y1-6 a collection of a variety of activities</p> 	<a href="https://www.purplemash.com/#tab/pm-home/topics/financial_education">https://www.purplemash.com/#tab/pm-home/topics/financial_education</a>	<a href="https://www.purplemash.com/#app/pup/Financialcapability_lessonideas">https://www.purplemash.com/#app/pup/Financialcapability_lessonideas</a>
	<p><b>Logo</b>            Write instructions of developing complexity to control the on screen turtle using simple logo commands. Ask the children to draw regular shapes and then to draw new shapes with a given scale factor</p> 	<a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a>	<a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a>

# Algebra



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>• Use simple formulae.</li> <li>• Generate and describe linear number sequences.</li> <li>• Express missing number problems algebraically.</li> <li>• Find pairs of numbers that satisfy an equation with two unknowns.</li> <li>• Enumerate possibilities of combinations of two variables.</li> </ul>	<b>Use of Mathematics printable resources</b>	Special Numbers – explore patterns 	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_templates">https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_templates</a>
	<b>2Calculate Spreadsheets</b> Use spreadsheet lessons that include formulae. Such as <b>Making Formulae</b>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>2Calculate Spreadsheets</b> Use formulae in spreadsheets to create and explore number sequences. Build complexity onto Lower KS2 lesson Sequences.	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>2Quiz</b> Create quizzes for number sequences. Question formats; sequencing, multiple choice, text, labelling and cloze could be used for this.	<a href="https://www.purplemash.com/#app/diys/2quiz">https://www.purplemash.com/#app/diys/2quiz</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2diy_2quiz_resources</a>

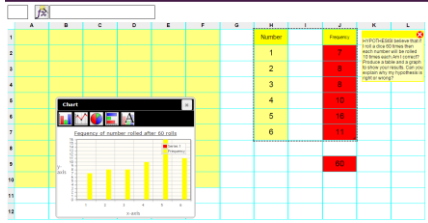
Measurement			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</li> <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 up to three decimal places.</li> <li>Convert between miles and kilometres.</li> <li>Recognise that shapes with the same areas can have different perimeters and vice versa.</li> <li>Recognise when it is possible to use formulae for area and volume of shapes.</li> </ul>	<b>Use of Mathematics printable resources</b>	Properties of triangles	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/mathematics/printable_resources_maths_shape</a>
	<b>Conversions</b> <b>2Calculate Spreadsheets</b> Create a conversion tool; see <b>Upper KS2 Lesson – Miles to Kilometres</b> . Apply this to other units as well.  <b>Upper KS2 lesson – Making Formulae</b>  <b>Upper KS2 lesson – Converting Money</b>	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Area and Perimeter</b> <b>2Calculate Spreadsheets</b> Build upon Lower KS2 Lesson – Sheep Shapes	<a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a>	<a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a>
	<b>Ready-made activities in</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all">https://www.purplemash.com/#tab/pm-home/maths/measures/maths_measures_all</a>	Perimeter	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_perimeter">https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_perimeter</a>
		Area	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_area">https://www.purplemash.com/#app/pup/maths_activities_Y5_measures_area</a>
		Convert units of measure	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert">https://www.purplemash.com/#app/pup/maths_activities_Y4_measures_convert</a>
		Convert measures to solve problems	<a href="https://www.purplemash.com/app/pup/maths_activities_Y6_measures_convert">https://www.purplemash.com/app/pup/maths_activities_Y6_measures_convert</a>
		Convert units (m and mm)	<a href="https://www.purplemash.com/app/pup/maths_activities_Y6_measures_convert_units">https://www.purplemash.com/app/pup/maths_activities_Y6_measures_convert_units</a>

<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 [for example, <math>\text{mm}^3</math> and <math>\text{km}^3</math>].</li> </ul>		Matching volume and capacity	<a href="https://www.purplemash.com/site#app/pup/maths_connectvolume2_L6">https://www.purplemash.com/site#app/pup/maths_connectvolume2_L6</a>
		Volume and Capacity	<a href="https://www.purplemash.com/site#app/pup/maths_connectvolume1_L6">https://www.purplemash.com/site#app/pup/maths_connectvolume1_L6</a>
		Prefixes in units of measurement	<a href="https://www.purplemash.com/site#app/pup/maths_prefixmeasure_L6">https://www.purplemash.com/site#app/pup/maths_prefixmeasure_L6</a>
	<p><b>2Design and Make</b></p> <p>Create annotated cuboids using 2Design &amp; Make with size information in the nets; children can calculate the volumes.</p>	<p><a href="https://www.purplemash.com/#app/tools/2dam">https://www.purplemash.com/#app/tools/2dam</a></p> 	<p><a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a></p>

Geometry – properties of a shape			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• Draw 2-D shapes using given dimensions and angles.</li> <li>• Recognise, describe and build simple 3-D shapes, including making nets.</li> <li>• Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</li> <li>• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</li> <li>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li> </ul>	<b>Use of Mathematics printable resources</b>	2D and 3D shapes	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_shape">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_math_shape</a>
	<b>Logo</b> Explore angles using the Logo turtle.	<a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a> 	<a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a>
	<b>2Design and Make</b> Create, edit and make 3D shapes from nets.	<a href="https://www.purplemash.com/#app/tools/2dam">https://www.purplemash.com/#app/tools/2dam</a> 	<a href="https://www.purplemash.com/#app/lessonplans/info/2dam_guide">https://www.purplemash.com/#app/lessonplans/info/2dam_guide</a>
	<b>Ready-made activities at</b> <a href="https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties">https://www.purplemash.com/#tab/pm-home/maths/patterns_and_shapes/maths_shape_properties</a>	Angles	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_angles">https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_angles</a>
		3D Shapes	<a href="https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_3d">https://www.purplemash.com/#app/pup/maths_activities_Y5_shape_3d</a>
		Unknown angles in triangles	<a href="https://www.purplemash.com/app/pup/maths_activities_Y6_shape_angles_unknown">https://www.purplemash.com/app/pup/maths_activities_Y6_shape_angles_unknown</a>

		shape problems	<a href="https://www.purplemash.com/app/pup/maths_activities_Y6_shape_problems">https://www.purplemash.com/app/pup/maths_activities_Y6_shape_problems</a>
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Geometry – position and direction			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
Pupils should be taught to: <ul style="list-style-type: none"> <li>Describe positions on the full coordinate grid (all four quadrants).</li> <li>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</li> </ul>	<b>Use of Mathematics printable resources</b>	Coordinates	<a href="https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape">https://www.purplemash.com/#tab/teachers/printable_resources/printable_resources_mathematics/printable_resources_maths_shape</a>
	<b>Logo</b> Use Logo to draw a simple shape. Using the Pen Up and Pen Down translate the shape (10,2)	<a href="https://www.purplemash.com/#app/tools/2logo">https://www.purplemash.com/#app/tools/2logo</a> 	<a href="https://www.purplemash.com/site#app/guides/2Logo_Guide">https://www.purplemash.com/site#app/guides/2Logo_Guide</a>
	<b>2Go</b> Create a resource on 2Go and print it off. Ask the children to answer questions relating to the resource. E.g. use a map of Europe and ask the children where they would land if they travelled (3,4) from Madrid		<a href="https://www.purplemash.com/#app/tools/2go">https://www.purplemash.com/#app/tools/2go</a>

Statistics			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Link to Planning and Resources
<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>Interpret and construct pie charts and line graphs and use these to solve problems.</li> <li>Calculate and interpret the mean as an average.</li> </ul>	<p><b><u>2Calculate Spreadsheets</u></b></p> <p>Includes premade lesson plans and videos to develop number problem-solving skills.</p> <p>Create your own activities including scaled bar charts and tables.</p> <p><b><u>Relevant 2Calculate Lessons:</u></b></p> <p>Intermediate Points (Upper KS2)</p> <p>Mean Class sizes</p>	<p><a href="https://www.purplemash.com/#app/tools/2Calculate">https://www.purplemash.com/#app/tools/2Calculate</a></p>  <p>Can be accessed by pupils from within 2Calculate tool.</p>	<p><a href="https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources">https://www.purplemash.com/#tab/teachers/guides_and_resources/2calculate_resources</a></p>