

Curriculum Map - Maths

Curriculum Area: Maths - multiplication and division

Curriculum Intent:

We want children to be competent mathematicians throughout their time at Hilldene and beyond. We promote enquiry and passion in all our learners to achieve proficiency of mathematical fluency in the four operations; addition, subtraction, multiplication and division.

We have chosen to implement a mastery approach, for the teaching of mathematics. Through the Discover section of the lessons, children will be confident to investigate different mathematical concepts encouraging collaboration and resilience. This will be achieved by using prior learning, taught mathematical vocabulary and strategies to enhance and develop curiosity.

We will produce logical thinkers who can problem solve efficiently and apply their skills to real life situations outside of the classroom environment.

Multiplication and Division	EYFS Number	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Skills	Skills	Skills	Skills	Skills	Skills	Skills
		<p>Skills:</p> <p><u>Multiplication:</u> To skip count in 2s, 5s and 10s To sort objects into equal groups To recognise and use ten frames and number lines</p> <p><u>Representations:</u> Array Number line ten frame</p> <p><u>Division</u></p>	<p>Skills taught:</p> <p>Skip counting in 2, 5, 10 and 3 Symbols (x and /) The representation of arrays To make links between multiplication and division facts. To use the number square to find patterns within the</p>	<p>Skills taught:</p> <p>To make equal groups To share equally To use the bar model to solve word problems.</p> <p><u>Representations:</u> Arrays Bar model</p> <p><u>Representations</u> Arrays</p>	<p>Skills taught:</p> <p>To multiply and divide by 10 and 100 To use concrete and abstract representations for grouping and sharing.</p> <p><u>Representations:</u> Number line Arrays Ten frame</p>	<p>Skills taught:</p> <p>To use concrete and pictorial representations to understand factors and multiples</p> <p>To multiply and divide by 10, 100 and 1,000 To multiply and divide by multiples of 10, 100 and 1,000</p>	<p>Skills taught:</p> <p><u>Four operations (1)</u> To use an efficient method to multiply and divide numbers.</p> <p><u>Representations:</u> Grid method Column method of multiplication Short division Long division Number line to</p>

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	<p>To group objects into sets To compare two numbers To recognise equal and unequal groups</p> <p>To share amounts</p> <p><u>Representations</u></p> <p>Number line Number square Tens frame Arrays</p>	<p>multiplication facts.</p> <p><u>Representations</u> Number lines Array Bar model Repeated addition Number square)</p>	<p>Number lines Number squares Bar models (KS1)</p>		<p>To use the inverse calculation to check calculations.</p> <p><u>Representations:</u> Array Bar model Factor tree Multiplication square</p>	<p>represent division with remainders Place value grid and counters Bar model</p> <p><u>Four operations (2)</u> To find common factors and multiples To recall multiplication facts Solve mental calculations</p> <p><u>Representations:</u> Array Sorting circles/diagrams 100 square Bar model Number line Part whole model</p>
Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge	Knowledge
Knowledge taught:	<p>Knowledge taught: To understand that multiplication is the same as repeated addition. To apply knowledge of skip counting in 2s, 5s</p>	<p>Knowledge taught: To identify if groups are equal To form multiplication sentences. To solve multiplication and</p>	<p>Knowledge taught: To recognise when groups are equal and when they are not. To learn the 3, 4 and 8 times-tables.</p>	<p>Knowledge taught: To multiply and divide by 0 and 1 To learn all of our times-tables from 1 to 12. To understand related.</p>	<p>Knowledge taught: To recognise and find multiples and factors. To recognise and identify prime numbers. To calculate</p>	<p>Knowledge taught: <u>Four operations (1)</u> To learn to use column multiplication To learn different written methods</p>

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	<p>and 10s. Identify concrete, pictorial and abstract representations. To use number lines to represent skip counting. To use number lines to help them count on and back from a given starting point. To identify the number of groups in a count.</p>	<p>division word problems. To know odd and even numbers To divide by 2, 5 and 10. To divide by grouping and sharing.</p> <p><u>Multiplication and division (2)</u> To recognise multiplication through the repeated addition of multiple equal groups. To recognise and make equal groups. To divide numbers by 2. To recognise odd and even numbers.</p>	<p>To find a simple remainder when a number is divided. To solve multiplication and division problems.</p> <p><u>Multiplication and division (2)</u> To understand the difference between equal sharing and equal grouping. To explore division problems involving a remainder. To solve one- and two-step problems involving multiplication and division.</p>	<p>multiplication and division facts. To find solutions to multiplication and division word problems.</p> <p><u>Multiplication and division (2)</u> To multiply and divide by 0 and 1. To use visual representations to tackle problems.</p>	<p>square and cube numbers. To explore multiplying and dividing numbers by 10, 100, or 1000.</p> <p><u>Multiplication and division (2)</u> To use multiplication and division, using numbers with up to 4 digits. To written methods to calculate accurately.. To find and interpret remainders when dividing. To use skills to reason and solve problems.</p>	<p>for division</p> <p><u>Four operations (2)</u> To find common factors and multiples To learn about prime, square and cube numbers To learn about the order of operations (BODMAS)</p>
Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary	Key vocabulary
	<p>Equal groups, array, row, column, double, twice, share.</p>	<p>Equal groups, multiplication (x), times-tables, times, divide, division, share, group, odd, even.</p>	<p>Equal, multiply, divide, times-tables, sharing, grouping, array, bar model, remainder, repeated addition, multiplication sentence, division</p>	<p>Multiply, divide, multiplication fact, division fact, lots of, groups of, times tables, array, partition, part-whole model, remainder, factor pair, factors,</p>	<p>Prime number, composite number, square number, cube number, square, cube, inverse operation, multiply, divide, multiple, factor,</p>	<p>Column multiplication, short division, long division, remainder, factor, estimate, common factor, common multiple, prime, composite,</p>

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