

Year 5

Mastery Overview Term by Term



In conjunction with....

TIM HANDLEY
CONSULTANCY · TRAINING · LEADERSHIP
TIM-HANDLEY.CO.UK

Based on Materials from...

 **MathsHUBS**
White Rose

Year 5 Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value			Number – Addition and Subtraction			Number – Multiplication and Division				Measures- Area and Perimeter	
Spring	Number- Place value- including decimals.			Number- Four operations		Number – Fractions, percentages and decimal equivalence.				Geometr y- Angles		
Summer	Geometry- Shapes		Number- Fractions and Percentages.		Number- Properties of number		Geom etry- Positi on and Directi on	Measures Length, Mass, Capacity and Volume.		Measures- Area and Perimeter.	Consolidation.	

Covered throughout all units

Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.

Covered through cross curricular work.

Read Roman numerals to 1000 (M) and recognize years written in Roman numerals.

Solve comparison, sum and difference problems using information presented in a line graph.

Complete, read and interpret information in tables including timetables.



Term by Term Objectives

Year 5

Year group	5	Term	Autumn
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><u>Number and Place value</u></p> <p>Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1000000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero.</p> <p>Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000</p> <p>Solve number problems and practical problems that involve all of the above.</p>			<p><u>Number- addition and subtraction</u></p> <p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</p> <p>Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why.</p>			<p><u>Number – multiplication and division</u></p> <p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Multiply and divide whole numbers by 10, 100 and 1000.</p> <p>Multiply numbers up to 4 digits by a one or two digit number using a formal written method when appropriate.</p> <p>Divide numbers up to 4 digits by a one digit or two digit number using the formal written method where appropriate and interpret the remainders appropriately for the context.</p> <p>Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.</p>			<p><u>Measure- Area and Perimeter</u></p> <p>Measure and calculate the perimeter of composite rectilinear shapes in cm and m.</p> <p>Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular shapes.</p> <p>Develop and use the formula to find the area of rectangles (including squares) and explain how this is derived.</p>		



Term by Term Objectives

Year 5

Year group	5	Term	Spring
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
<p><u>Number: Place Value and Decimals</u> Read, write, order and compare numbers with up to three decimal places.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Round decimals with two decimal places to the nearest whole number and to one decimal place.</p> <p>Solve problems involving number up to three decimal places.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Read and write decimal numbers as fractions [for example $0.71 = 71/100$]</p> <p>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</p>			<p><u>Number- Four Operations</u></p> <p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</p> <p>Divide numbers up to 4 digits by a one digit or two digit number using the formal written method where appropriate and interpret the remainders appropriately for the context.</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.</p>		<p><u>Number- Fraction, Percentages and equivalences (Including decimals)</u> Compare and order fractions whose denominators are multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.</p> <p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number.</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Solve problems involving multiplication and division, including calculating fractions of number and quantities, scaling by simple fractions and problems involving simple rates.</p> <p>Recognize 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.</p> <p>Solve problems which involve knowing the decimal and percentage equivalent of fractions including $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{3}{4}$ and fractions whose denominators are multiples of 10 or 25.</p>			<p><u>Geometry- angles</u></p> <p>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</p> <p>Draw given angles, and measure them in degrees ($^{\circ}$)</p> <p>Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) and other multiples of 90°</p>	



Term by Term Objectives

Year 5

Year group	5	Term	Summer
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Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p>Geometry- shapes Identify 3D shapes, including cubes and other cuboids, from 2D representations.</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p>	<p>Number- Fractions and Percentages. Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.</p> <p>Recognize 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.</p> <p>Solve problems involving multiplication and division, including calculating fractions of number and quantities, scaling by simple fractions and problems involving simple rates.</p>	<p>Number- Properties of Number Identify multiples and factors of any given number.</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19</p> <p>Identify patterns and links between numbers, and special classes of number- for example square numbers, composite numbers etc...</p>	<p>Geometry- Position and Direction 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.</p> <p>Convert between different units of metric measure (for example, km and m; cm and m; cm and mm; g and kg; l and ml)</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints- when conversion graph or formula is given.</p>	<p>.Measures- Length, Mass, Capacity and Volume. Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]</p> <p>Use all four operations to solve problems involving measure</p> <p>Solve problems involving converting between units of time.8888887668687776777667</p>	<p>Measures Area and Perimeter. Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular shapes.</p> <p>Develop and use the formula to find the area of rectangles (including squares) and explain how this is derived.</p> <p>Find the area and perimeter of composite shapes.</p>	<p>Time at the beginning or end of the term for consolidation, gap filling, seasonal activities, assessments, etc.</p>					



