





## Numeracy Implementation

Numeracy is taught as an area of learning in its own right, as well as integrated with other curriculum areas where appropriate. There is also flexibility to seize opportunities to celebrate and acknowledge significant events.

Foundation Stage teach numeracy everyday - discretely - following the Early Learning goals and integrate it across the curriculum throughout the day. KS1 have 5 full sessions per week. KS2 have 5 full sessions per week plus 1 x 1 hour Schofield and Sims session on a Friday.

FS follow the Early Learning Goals; KS1 and KS2 all follow the order of FOCUS MATHS.

<b>Year 6: Overview of the year</b>					
<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
1 Place value, including decimals	1 Fractions.	2 Place value	1 Addition, subtraction, multiplication and division	3 Place value	2 Algebra
1 Addition & Subtraction	2 Fractions, percentages, decimals and fractions	3 Geometry	1 Ratio and proportion	3 Addition & Subtraction	4 Addition & Subtraction
1 Multiplication & Division	2 Geometry Angles	3 Measurement	4 Geometry	4 Fractions	5 Fractions
1 Geometry 2D and 3D shape	1 Measurement Length, perimeter, mass	3 Fractions	5 Measurement	5 Geometry	2 Statistics
2 Addition & Subtraction	2 Measurement Area and volume	3 Multiplication & Division	1 Statistics (line graphs and pie charts)	1 Algebra	6 Geometry
2 Multiplication & Division	Consolidate and assess	4 Multiplication & Division	Consolidate and assess	6 Measurements	Consolidate and assess



**Maths Vocabulary for Year 6**

<b>Number and place value</b>	<b>Addition and subtraction</b>	<b>Multiplication and division</b>	<b>Geometry (position and direction)</b>	<b>Geometry (properties of shape)</b>	<b>Fractions, decimals and percentages</b>	<b>Algebra</b>	<b>Data/statistics</b>
<ul style="list-style-type: none"><li>• Numbers to ten million</li></ul>	<ul style="list-style-type: none"><li>• Order of operations</li></ul>	<ul style="list-style-type: none"><li>• Order of operations</li><li>• Common factors, common multiples</li></ul>	<ul style="list-style-type: none"><li>• Four quadrants (for coordinates)</li></ul>	<ul style="list-style-type: none"><li>• Vertically opposite (angles)</li><li>• Circumference, radius, diameter</li></ul>	<ul style="list-style-type: none"><li>• Degree of accuracy</li><li>• Simplify</li></ul>	<ul style="list-style-type: none"><li>• Linear number sequence</li><li>• Substitute</li><li>• Variables</li><li>• Symbol</li><li>• Known values</li></ul>	<ul style="list-style-type: none"><li>• Mean</li><li>• Pie chart</li><li>• Construct</li></ul>



# Whinstone Primary School Year 6 Numeracy



## Impact

Teachers will regularly assess and will evaluate what knowledge and skills pupils have gained against expectations.

1 Below expectations	2 Meeting expectations	3 Exceeding expectations
	6.1.a.1 Calculate intervals across zero	
	6.1.b.1 Read and write numbers to 10 000 000 and determine the value of digits	
	6.1.b.2 Consolidate reading Roman numerals to 1000 (M) and recognising years written in Roman numerals	
	6.1.b.3 Use negative numbers in context i.e temperature	
	6.1.c.1 Order and compare numbers up to 10 000 000	
	6.1.d.1 Solve number problems and practical problems with number and place value from the Year 6 curriculum	
	6.1.e.1 Round whole numbers to 10 000 000 to a required degree of accuracy	
	6.2.a.1 Use knowledge of the order of operations	
	6.2.b.1 Perform mental calculations, including with mixed operations and large numbers	
	6.2.b.3 Identify common factors, common multiples and prime numbers greater than 100	
	6.2.b.4 Consolidate multiplying and dividing whole numbers and decimals by 10, 100 and 1000	
	6.2.c.1 Solve multi-step addition and subtraction problems in less familiar contexts, deciding which operations and methods to use and why	
	6.2.c.3 Solve multi-step calculation problems involving combinations of all four operations	
	6.2.d.1 Consolidate knowledge of multiples and factors, including all factor pairs of a number, and common factors of two numbers	
	6.2.d.2 Consolidate recall of square numbers and cube numbers and the notation for them	
	6.2.d.3 Consolidate recall of prime numbers up to 19	
	6.2.e.1 Consolidate adding and subtracting whole numbers with more than 4 digits, including using formal written columnar addition and subtraction	
	6.2.e.2 Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	
	6.2.e.3 Divide numbers up to 4 digits by a two-digit whole number using the formal methods of short or long division, and interpret remainders as appropriate for the context as whole numbers, fractions or by rounding	
	6.2.f.1 Check answers to calculations with mixed operations and large numbers, choosing the most appropriate method, including estimation, and determining, in the context of a problem, an appropriate degree of accuracy	



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1 Below expectations	2 Meeting expectations	3 Exceeding expectations
	6.2.f.2 Check answers to calculations with all four operations involving any numbers by rounding	
	6.3.a.1 Associate a fraction with division	
	6.3.a.3 Identify the value of each digit in numbers given to three decimal places	
	6.3.a.4 Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places	
	6.3.b.1 Use common factors to simplify fractions	
	6.3.b.2 Use common multiples to express fractions in the same denomination	
	6.3.b.3 Consolidate understanding of the relation between tenths, hundredths and thousandths and decimal notation	
	6.3.b.4 Calculate decimal fraction equivalents for a simple fraction	
	6.3.b.5 Consolidate understanding of the connection between fractions, decimals and percentages	
	6.3.b.6 Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	
	6.3.c.1 Compare and order fractions, including fractions $> 1$	
	6.3.c.2 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	
	6.3.c.3 Multiply simple pairs of proper fractions	
	6.3.c.4 Divide proper fractions by whole numbers	
	6.3.c.5 Round decimals to three decimal places or other approximations depending on the context	
	6.3.c.6 Use written division methods in cases where the answer has up to two decimal places	
	6.3.c.7 Multiply one-digit numbers with up to two decimal places by whole numbers	
	6.3.d.1 Multiply a quantity that represents a unit fraction to find the whole quantity	
	6.3.d.2 Solve problems which require decimal answers to be rounded to specified degrees of accuracy	
	6.1.4 Use, read and write standard units with up to three decimal places, including converting from smaller to larger units and vice versa	
	6.1.5 Convert between miles and kilometres and use a conversion graph	
	6.1.6 Recognise that shapes with the same areas can have different perimeters and vice versa	
	6.2.5 Estimate volume of cubes and cuboids	
	6.3.4 Solve measurement problems with decimal notation up to three decimal places and approximate equivalences between metric and imperial measurements	
	6.3.6 Calculate the area of parallelograms and triangles	



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1 Below expectations	2 Meeting expectations	3 Exceeding expectations
	6.3.7 Recognise when it is possible to use formulae for area and volume of shapes	
	6.3.8 Calculate and compare volume of cubes and cuboids using standard units	
	6.1.1 Draw 2-D shapes accurately using given dimensions and angles	
	6.1.3 Build simple 3-D shapes, including making nets	
	6.2.1 Compare and classify geometric shapes based on increasingly complex geometric properties and sizes	
	6.2.2 Illustrate and names parts of circles, including radius, diameter and circumference and know that the diameter of a circle is twice the radius	
	6.2.3 Recognise 3-D shapes from their nets	
	6.3.1 Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	
	6.3.3 Find unknown angles and lengths in triangles, quadrilaterals, and regular polygons	
	6.4.1 Use positions on the full coordinate grid (all four quadrants)	
	6.5.1 Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	
	6.1.1 Interpret data in pie charts	
	6.1.2 Consolidate skills in interpreting more complex tables, including timetables	
	6.2.1 Present data using pie charts and line graphs	
	6.3.1 Solve problems using pie charts and line graphs	
	6.3.2 Calculate and interpret the mean as an average	
	6.1.1 Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts	
	6.1.2 Solve problems involving the calculation of percentages and the use of percentages for comparison	
	6.1.3 Solve problems involving similar shapes where the scale factor is known or can be found	
	6.1.4 Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples	
	6.1.1 Express missing number problems algebraically	
	6.1.2 Use simple formulae	
	6.2.1 Find pairs of numbers that satisfy an equation with two unknowns	
	6.2.2 Enumerate possibilities of combinations of two variables	
	6.3.1 Generate and describe linear number sequences	