

## LOSTOCK HALL PRIMARY SCHOOL - WHOLE SCHOOL PROGRESSION AND SKILLS MAP

SUBJECT	RECEPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
MATHS	<p><b>Number/Calculation</b> Count reliably with numbers from 1 - 20</p> <p>Say which is <b>one more or less</b> than a given number (to 20)</p> <p>-Add a two single digit numbers</p> <p>Count on or back to find the answer</p>	<p><b>Number/Calculation</b> -count to/across 100 -count 1s, 2s, 5s, 10s -identify 'one more and one less' -read and write numbers to 20 -Use language, e.g. 'more than' 'most' -Use + - and = symbols -know number bonds to 20 -add and subtract one-digit and two-digit numbers to 20, including zero -solve one step problems including simple arrays</p>	<p><b>Number/Calculation</b> -Know 2, 5 and 10x tables Begin to use place value (T/O) -Count in 2s, 3s, 5s, &amp; 10s -Identify, represent and estimate numbers -Compare/order numbers, inc. &lt; &gt; = -Write numbers to 100 -know number facts to 20 (+ related to 100) -use x and ÷symbols -Recognise commutative property of multiplication</p>	<p><b>Number/Calculation</b> -Learn 3, 4 &amp; 8 tables -Secure Place Value to 100 -Mentally add and subtract units, tens or hundreds to numbers of up to 3 digits -Written column addition &amp; subtraction -Solve number problems, including multiplication &amp; simple division and missing number problems -Use commutativity to help calculations</p>	<p><b>Number/Calculation</b> -Know all tables to 12 x 12 -Secure place value to 1000 -Use negative numbers -Round number to the nearest 10, 100 or 1000 -Use Roman numerals to 100(C) -Column addition &amp; Subtraction up to 4 digits -Multiply and divide mentally -Use standard short multiplication</p>	<p><b>Number/Calculation</b> -Secure place value to 1000,000 -Use negative whole numbers in context -Use Roman numerals to 1000 (M) -Use standard written methods for all four operations -Confidently add and subtract mentally -Use vocabulary for prime, factor &amp; multiple -Multiply and divide by powers of 10 -Use square and cube numbers</p>	<p><b>Number/Calculation</b> -Secure place value and rounding to 10,000,000, including negatives -All written methods, including long division -Use order of operations (not indices) -Identify factors, multiples &amp; primes -Solve multi-step number problems</p> <p><b>Algebra</b> -Introduce simple use of unknowns</p>
	<p><b>Geometry &amp; Measures</b> GENERAL</p> <p>Use everyday language to talk about size, weight, capacity, distance position, time and money. To compare quantities and objects and solve problems</p> <p>Perimeter</p>	<p><b>Geometry &amp; Measures</b> -use common vocabulary for comparison, e.g. heavier, taller, full, longest, quickest -Begin to measure length, capacity, weight -recognise coins and notes -Use time &amp; ordering vocabulary</p>	<p><b>Geometry &amp; Measures</b> -Know and use standard measures -Read scales to nearest whole unit -Use symbols for £ and p and add/subtract simple sums of less than £ or in pounds -Tell the time to the nearest 5 minutes -Identify and sort 2-d and 3-d shapes</p>	<p><b>Geometry &amp; Measures</b> -Measure and calculate with metric measures -Measure simple perimeter -Add/subtract using money in context -Use Roman numerals up to XII; tell time -Calculate using simple time problems -Draw 2-d/make 3-d shapes</p>	<p><b>Geometry &amp; Measures</b> -Compare 2-d shapes, including quadrilaterals &amp; triangles -Find area by counting squares -Calculate rectangle perimeters -Estimate and calculate measures -Identify acute, obtuse &amp; right angles -Identify symmetry</p>	<p><b>Geometry &amp; Measures</b> -Convert between different units -Calculate perimeter of composite shapes &amp; area of rectangles &amp; area of rectangles -Estimate volume &amp; capacity -Identify 3-d shapes -Measure &amp; identify angles -Understand regular polygons</p>	<p><b>Geometry &amp; Measures</b> -Confidently use an range of measures &amp; conversions -Calculate area of triangles/parallelograms -Use area and volume formulas -Classify shapes by properties -Know and use angle rules -Translate &amp; reflect shapes using all four quadrants</p>

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	<p>Area Money Time</p> <p>Explore the characteristics of everyday objects and shapes and use language to describe them Recognise, create and describe patterns</p>	<p>-Tell the time to hour/half hour -Use language of days/weeks, months &amp; years -recognise and name common 2-D and 3-D shapes -Order and arrange objects -Describe position and movement, including half and quarter turns</p>	<p>-Identify 2-d shapes on 3-d surfaces -Order and arrange mathematical objects -Use terminology of position and movement</p>	<p>-Identify and use right angles -Identify horizontal, vertical, perpendicular and parallel lines</p>	<p>-Use first quadrant co-ordinates -Introduce simple translations</p>	<p>-Reflect &amp; translate shapes</p>	
	<p><b>Fractions</b> -solve problems including <b>doubling, halving and sharing</b></p>	<p><b>Fractions</b> -Recognise &amp; use <b>1/2 and 1/4</b></p>	<p><b>Fractions</b> -Find and write simple fractions -Understand equivalence e.g. <b>2/4 = 1/2</b></p>	<p><b>Fractions &amp; decimals</b> -Use and count in tenths -Recognise find and write fractions -Add/subtract fractions up to &lt;1 -Order fractions with common denominators</p> <p><b>Recognise, find and write</b> fractions as a set of discrete objects; unit fractions and non-unit fractions with small denominators <b>Recognise and show,</b> using diagrams, equivalent fractions with small denominators</p>	<p><b>Fractions &amp; decimals</b> -Recognise tenths &amp; hundredths -Identify equivalent fractions -Add and subtract fractions with common denominators -Recognise common equivalents -Round decimals to whole numbers -Solve money problems</p>	<p><b>Fractions, decimals &amp; percentages</b> Identify, name and write equivalent fractions of a given fraction, represented visually, incl tenths and hundredths.</p> <p>Read and write decimal numbers as fractions (eg 0.71 = 71/100) <b>Recognise mixed number and improper fractions</b> Convert from one to another and write mathematical statements Round decimals with two decimal places. Read write and order and compare</p>	<p><b>Fractions, decimals &amp; percentages</b> Associate a fraction with division and calculate decimal fraction equivalents (eg 0.375) for a simple fraction (eg 3/8)</p> <p>Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places <b>Compare and order fractions</b> incl fractions greater than 1. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination</p>

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				<b>Solve problems using all of the above</b>	<b>Solve problems</b> Involving increasingly harder fractions to calculate quantities and fractions to divide quantities incl non-unit fractions where the answer is a whole number Solve simple measure and money problems involving fractions and decimals to two decimal places	numbers up to three decimal places Recognise the % symbol <b>Solve problems</b> which require knowing percentage and decimal equivalents. Solve problems which involve number up to three decimal places	<b>Solve problems</b> involving the calculation of percentages of whole numbers and measures such as 15% of 360 and the use of percentage comparison Solve problems which require answers to be rounded to specified degrees of accuracy.
	<b>Solve Problems,</b> including doubling, halving and sharing	Solve <b>one-step problems</b> involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Solve <b>problems</b> involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts	<b>Solve problems</b> incl. missing number problems, involving multiplication and division, incl. integer scaling problems and correspondence problems in which n objects are connected to m objects	<b>Solve problems</b> involving multiplying and adding, including the distribution law to multiply 2-digit numbers by 1-digit, integer scaling problems and harder multiplication problems such as n objects are connected to m objects	<b>Solve problems</b> involving addition, subtractions, multiplication and division and a combination of these, incl. understanding the meaning of the equals sign	<b>Solve problems /</b> Use the knowledge of the order of operations to carry out calculations involving four operations
						<b>Solve problems</b> involving multiplication and division, including scaling by simple fractions and problems involving simple rates	<b>Solve problems</b> addition and subtraction, multiplication and division
			<b>Statistics</b> Interpret and construct simple:	<b>Statistics</b> Interpret and present data using;	<b>Statistics</b> Interpret and present discrete	<b>Statistics</b>	<b>Statistics</b> Interpret and construct:

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			<p>pictograms, tally charts, block diagrams, simple tables.</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting categories by quantity.</p> <p>Ask and answer questions about totalling and compare categorical data</p>	<p>bar charts, pictograms, tables</p> <p>Solve one and two-step questions such as 'How many more/how many less?' Using information presented in scaled bar charts, pictograms and tables</p>	<p>data using appropriate graphical methods, incl bar charts and line graphs</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms tables and other graphs</p>	<p>Complete and read information in tables and timetables.</p> <p>Solve comparison, sum and difference problems using information presented in a line graph</p>	<p>Pie charts, line graphs and use these to solve problems</p> <p>Calculate and interpret the mean as an average</p>
							<p><b>Ratio and Proportion</b></p> <p>Solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>Solve problems involving the calculation of percentages of whole number or measures such as 15% of 360 and the use of percentage comparison.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems with unequal sharing and grouping using knowledge of fractions and multiples.</p>

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							<p><b>Algebra</b> Express missing number problems algebraically. Use simple formulae. Generate and describe linear number sequences. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate all possibilities of combinations of two variables.</p>
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