



Roe Lee Park Primary School Maths Key Stage 1 Progression Document



Area of Study	EYFS	Year 1	Year 2	Year 3
Place Value	<p>Count numbers to 5. Link the number symbol with its cardinal value to 5 and subitise to 5</p> <p>Compare identical and non-identical groups of objects using the language of comparison</p> <p>Count 6,7,8,9,10</p> <p>Compare different groups to 10 in a range of contexts. Recognise when one quantity is greater than/less than or equal to another quantity.</p> <p>Count numbers to 20.</p> <p>Verbally count beyond 20 recognising the pattern of the counting system.</p>	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Count and read numbers to 100 in numerals.</p> <p>Count and write numbers to 100 in numerals.</p> <p>Count in multiples of twos, fives and tens from 0.</p> <p>Identify one more and one less of a given number.</p> <p>Read and write numbers from 1 to 20 in numerals.</p> <p>Read and write numbers from 1 to 20 in words.</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language: equal to, more than, less than (fewer), most, least.</p>	<p>Recognise the place value of each digit in a two-digit number (tens, ones). Identify, represent and estimate numbers using different representations, including the number line.</p> <p>Partition two-digit numbers into different combinations of tens and ones using apparatus if needed e.g. 23 is the same as 2 tens and 3 ones which is the same as 1 ten and 13 ones.</p> <p>Demonstrate an understanding of place value supported by the use of apparatus if required e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 has a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as $35 < 53$ and $42 > 36$.</p> <p>Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward.</p>	<p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). Compose and decompose using standard and non-standard partitioning.</p> <p>Identify, represent and estimate numbers using different representations</p> <p>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</p> <p>Read and write numbers up to 1000 in numerals</p> <p>Read and write numbers up to 1000 in words</p> <p>Compare and order numbers up to 1000</p> <p>Reason about the location of any 3 digit number in the linear number system, including identifying the</p>

		<p>Reason about the location of numbers to 20 within the linear number system including comparing using \leq \geq and $=$.</p>	<p>Read and write numbers to at least 100 in numerals.</p> <p>Read and write numbers to at least 100 in words.</p> <p>Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.</p> <p>Recall the multiples of 10 below and above any given 2 digit number e.g. say that for 67 the multiples are 60 and 70.</p> <p>Use place value and number facts to solve problems.</p>	<p>previous and next multiple of 100 and 10.</p> <p>Solve number problems and practical problems involving these ideas.</p>
<p>Addition and Subtraction</p>	<p>Sort numbers into groups</p> <p>Change within 5 – understand one more/less relationship between consecutive numbers</p> <p>Numbers to 5 – recall number facts to 5 including subtraction facts</p> <p>Addition to 10 – combine 2 groups to find the whole.</p>	<p>Subitize Numbers 1-10 by partitioning.</p> <p>Compose numbers to 10 from 2 parts and partition numbers to 10 into parts.</p> <p>Read and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p>Write mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p>	<p>Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</p> <p>Solve problems with addition and subtraction, applying his/her increasing knowledge of mental and written methods.</p> <p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</p>	<p>Add and subtract numbers mentally, including a three-digit number and ones.</p> <p>Add and subtract numbers mentally, including a three-digit number and tens.</p> <p>Add and subtract numbers mentally, including a three-digit number and hundreds.</p> <p>Add numbers with up to three digits using the formal written method of columnar addition.</p>

	<p>Use 10's frames to find bonds to 10. Use the PPW model to find bonds to 10 and recall.</p> <p>Counting on and back.</p>	<p>Represent and use number bonds within 20.</p> <p>Represent and use subtraction facts within 20.</p> <p>Add one-digit and two-digit numbers to 20, including zero.</p> <p>Solve one-step problems that involve addition, subtraction and missing numbers using concrete objects and pictorial representations.</p> <p>Subtract one-digit and two-digit numbers to 20, including zero.</p> <p>Band 1 - Maths Number Addition and Subtract</p>	<p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and tens.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including two two-digit numbers.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers.</p> <p>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</p> <p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>	<p>Subtract numbers with up to three digits using the formal written method of columnar subtraction</p> <p>Understand the inverse relationship between addition and subtraction and how both relate to the PPW model.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>
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<p>Multiplication and Division</p>	<p>Numerical patterns – doubling and halving.</p>	<p>Count in multiples of twos, fives and tens from 0.</p> <p>Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> <p>Solve one-step problems involving division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p>	<p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</p> <p>Recall doubles and halves to 20 e.g. knowing that double 2 is 4, double 5 is 10 and half of 18 is 9.</p> <p>Recognise repeated addition contexts representing them, representing them with multiplication equations and calculating the product.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the</p>	<p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that he/she knows, including for two-digit numbers times one-digit numbers, using mental methods and progressing to formal written methods.</p> <p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in</p>

			<p>multiplication (\times), division (\div) and equals (=) signs.</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Solve problems involving multiplication and division, using concrete materials and mental methods.</p> <p>Solve problems involving multiplication and division using arrays, repeated addition and multiplication and division facts, including problems in contexts.</p>	<p>which n objects are connected to m objects.</p>
<p>Fractions</p>		<p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p>	<p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>	<p>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.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and use fractions as numbers: unit fractions and</p>

				<p>non-unit fractions with small denominators.</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators.</p> <p>Add fractions with the same denominator within one whole e.g. $5/7 + 1/7 = 6/7$.</p> <p>Subtract fractions with the same denominator within one whole e.g. $6/7 - 1/7 = 5/7$.</p> <p>Compare and order unit fractions, and fractions with the same denominators.</p> <p>Solve fraction problems.</p>
<p>Properties of shape</p>	<p>Recognise and name simple 2D & 3D shapes And describe using their properties.</p> <p>Explore patterns- make simple patterns and explore complex patterns.</p> <p>Select, rotate and manipulate shapes in order to develop spatial reasoning.</p>	<p>Recognise and name common 2-D shapes e.g. rectangles (including squares), circles and triangles.</p> <p>Recognise and name common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres.</p> <p>Recognise common 2D and 3D shapes presented in different orientations</p> <p>Compose 2D and 3D shapes from smaller shapes to match an example.</p>	<p>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</p> <p>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</p> <p>Identify 2-D shapes on the surface of 3-D shapes e.g. a circle on a cylinder and a triangle on a pyramid.</p>	<p>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p> <p>Recognise angles as a property of shape or a description of a turn.</p> <p>Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a</p>

		Compose and decompose shapes so that children recognise a shape can have other shapes within it.	Compare and sort common 2-D and 3-D shapes and everyday objects.	complete turn; identify whether angles are greater than or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
Measurement	<p>Time – understand the passage of time- days of the week and months of the year. Know there are 7 days in a week and 12 months in a year.</p> <p>Measure – explore length, height, weight, distance and capacity using non-standard units.</p>	<p>Sequence events in chronological order using language e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p> <p>Compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half.</p> <p>Compare, describe and solve practical problems for mass/weight e.g. heavy/light, heavier than, lighter than.</p>	<p>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. <i>on rulers or scales.</i></p> <p>Compare and order lengths, mass, volume/capacity and record the results using >, < and =.</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money.</p> <p>Solve simple problems in a practical context involving addition and</p>	<p>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</p> <p>Measure the perimeter of simple 2-D shapes</p> <p>Add and subtract amounts of money to give change, using both £ and p in practical contexts</p> <p>Tell the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</p> <p>Write the time using an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</p> <p>Estimate and read time with increasing accuracy to the nearest minute, record and compare time in terms of</p>

		<p>Compare, describe and solve practical problems for capacity and volume e.g. full/empty, more than, less than, half, half full, quarter.</p> <p>Compare, describe and solve practical problems for time e.g. quicker, slower, earlier, later.</p> <p>Measure and begin to record mass/weight.</p> <p>Measure and begin to record capacity and volume.</p> <p>Measure and begin to record time (hours, minutes, seconds).</p> <p>Recognise and know the value of different denominations of coins and notes.</p> <p>Measure and begin to record length/height.</p> <p>Band 1 -</p>	<p>subtraction of money of the same unit, including giving change.</p> <p>Compare and sequence intervals of time.</p> <p>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.</p> <p>Read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given e.g. read the temperature on a thermometer or measure capacities using a measuring jug.</p> <p>Read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given e.g. a number line with missing labels.</p> <p>Read the time on a clock to the nearest 15 minutes.</p>	<p>seconds, minutes and hours, use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</p> <p>Know the number of seconds in a minute and the number of days in each month, year and leap year.</p> <p>Compare durations of events e.g. calculate the time taken by particular events or tasks</p>
<p>Statistics</p>			<p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Ask and answer simple questions by counting the number of objects</p>	<p>Interpret and present data using bar charts, pictograms and tables.</p> <p>Solve one-step and two-step questions e.g. 'How many more?' and 'How many fewer?', using information</p>

			<p>in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and comparing categorical data.</p>	<p>presented in scaled bar charts, pictograms and tables.</p>
<p>Position and direction</p>	<p>Follow and understand instructions using prepositional language.</p>	<p>Describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p>	<p>Order and arrange combinations of mathematical objects in patterns and sequences.</p> <p>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 anti-clockwise).</p>	