



Moor First School – Progression in Maths



Orange Emerging	Orange Expected	Orange Greater Depth
Number, Place Value and rounding		
<p>Count in 2's, 5's and 10's from 0 and use this to solve problems.</p> <p>I can count forward in steps of 10 from any number up to 100 (e.g. 34, 44, 54, 64 ...).</p> <p>I am confident recording my thinking or working out on a number line.</p> <p>Read and write numbers in numerals up to 100.</p> <p>Compare numbers from 0 up to 100 using the greater than > and the less than < signs.</p> <p>I understand what tens and ones are and can use structured resources to begin to partition.</p> <p>I am confident in knowing the value of each digit in a 2-digit number.</p>	<p>I can count in 3's.</p> <p>I can count backward in steps of 10 from any given number.</p> <p>I can identify, represent and estimate numbers using a number line.</p> <p>Compare and order numbers from 0 up to 100 using the greater than > and less than < and = signs.</p> <p>I can identify, represent and estimate numbers using the expanded column method.</p> <p>I can read and write numbers to at least 100 (numerals and words).</p> <p>I can use my knowledge of place value and number facts to solve problems.</p> <p>I can partition any 2 digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.</p>	<p>Recognise and identify a multiple of 2, 5 and 10 of any given number.</p> <p>Recognise and understand the place value of each digit in a three-digit number (hundreds, tens, and ones).</p> <p>Accurately estimate numbers on an empty line and explain why they have placed my number in that position.</p> <p>Solve problems using <, > and = signs numbers up to 100 and explain my reasoning.</p> <p>Read numbers correctly in words when solving a mathematical problem.</p> <p>Explain the method I have used and how the problem was solved and why the answer is correct.</p>



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Addition and Subtraction		
<p>Recall at least four of the six number bonds for 10 and reason about the associated facts (eg $6+4=10$, therefore $4+6=10$ and $10-6=4$)</p> <p>I can solve addition and subtraction problems (with numbers up to and beyond 20) and then with numbers, quantities and measures up to 100.</p> <p>I can add 1 digit to a 2 digit number by putting the biggest number in my head and counting on or using objects.</p> <p>I can add multiples of 10 to a 2-digit number (e.g. $34+20=54$) in my head.</p> <p>I can add three 1-digit numbers in my head (e.g. $8+6+4=18$) or use objects.</p> <p>I understand that numbers can be added in any order.</p> <p>Recognise the inverse relationship between addition and subtraction (e.g. $6+4=10$ so $10-4=6$).</p> <p>I understand that when subtracting, the biggest number must go first.</p>	<p>I can recall and use number facts up to 100 (e.g. $70+30=100$ and also $75+25=100$).</p> <p>When solving problems I can apply my knowledge of mental and written methods (expanded column method for addition and number line for subtraction).</p> <p>I can add and subtract two digit and ones, and two digit numbers and tens where no regrouping is required, explaining their method verbally, in picture or using apparatus (eg $23 + 5$, $46 + 20$, $16 - 5$, $88 - 30$).</p> <p>I can add and subtract two 2-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (eg $48 + 35$, $72 - 17$)</p> <p>I can demonstrate my understanding that addition of 2 numbers can be done in any order and subtraction of 1 number from another cannot.</p> <p>Recall all number bonds to and within 10 and use these to reason with and calculate bonds to 20, recognising other associated additive relationships (eg if $7 + 3 = 10$ then $17 + 3 = 20$, if $7 - 3 = 4$, then $17 - 3 = 14$; leading to if $14+3=17$ then $3 + 14 =17$, $17 - 14 = 3$ and $17 - 3 =14$)</p>	<p>Solve unfamiliar word problems that involve more than one step (eg which has the most biscuits, 4 packet of biscuits with 5 in each packer or 3 packets of biscuits with 10in each packet?)</p> <p>Use fluent recall of subtraction and addition facts to support mental calculations.</p> <p>Use a written method to add and subtract two 2 digit numbers from 2 digit numbers.</p> <p>Be able to make 2 correct additions and 2 subtractions using 2 digit numbers.</p> <p>Use reasoning about numbers and relationships to solve more complex problems and explain their thinking.</p>

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Multiplication and Division		
<p>I recognise odd and even numbers.</p> <p>I can recall the multiplication facts for the 2, 5 and 10 times tables.</p> <p>Solve simple multiplication and division sums using apparatus and arrays (e.g. multi-link).</p> <p>I am beginning to recall some related division facts (e.g. $6 \times 2 = 12$ so $12 \div 2 = 6$).</p> <p>I understand that numbers can be multiplied in any order.</p>	<p>I am beginning to recall some related division facts (e.g. $6 \times 2 = 12$ so $12 \div 2 = 6$).</p> <p>I am beginning to recall some related division facts (e.g. $6 \times 2 = 12$ so $12 \div 2 = 6$).</p> <p>Solve multiplication and division sums in my head or using a number line.</p> <p>I understand that when dividing, the biggest number must go first.</p> <p>I can recall and use the multiplication and division facts for the 2, 5 and 10 times tables and use them to solve simple problems, demonstrating an understanding of commutativity as necessary.</p>	<p>Use commutativity and inverse relations to develop multiplicative reasoning (e.g. $4 \times 5 = 20$ and $20 \div 5 = 4$).</p> <p>Recognise and use the inverse relationships between multiplication and division.</p> <p>Show and explain how knowing a multiplication fact helps me to solve a division word problem and record related number sentences.</p> <p>Recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts.</p>
Fractions, decimals and percentages		
<p>I am beginning to find, name and write $1/3$, $1/4$, $2/4$ ($1/2$) and $3/4$ of a length, shape, set of objects or quantity.</p> <p>I recognise there are 2 halves in a whole, 3 thirds in a whole and 4 quarters in a whole.</p> <p>I am beginning to recognise equivalent fractions (e.g. $2/4$ is equal to $1/2$, or 6 halves are equal to 3 wholes).</p>	<p>Identify $1/4$, $1/3$, $1/2$, $2/4$, $3/4$ of a number or shape, and know that all parts must be equal parts of the whole.</p> <p>I can use my knowledge of equivalent fractions.</p>	<p>Solve and explain how to use fractions when solving problems using shape, objects and quantities.</p> <p>Count in halves and quarters up to 10 on a number line and begin to understand the concept of fractions as numbers.</p>



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Measurement		
<p>I can carefully measure length, height (m/cm), mass (kg, g), temperature (°c) and capacity (l/ml)</p> <p>I can estimate length, height (m/cm), mass (kg, g), temperature (°c) and capacity (l/ml) using standard units.</p> <p>I can read scales in divisions of ones, twos, fives and tens.</p> <p>I can recognise and use the £ and p symbols.</p> <p>Know the value of different coins</p> <p>I am beginning to solve simple problems practically involving the addition and subtraction of money.</p> <p>There are 60 minutes in an hour and 24 hours in a day.</p> <p>I can tell and write the time to the nearest 15 minutes including quarter past and quarter to the hour.</p>	<p>I can choose appropriate units to measure in and compare and order measurements.</p> <p>I can record measurements using the <, > and = signs.</p> <p>I can combine amounts of money to make a given value.</p> <p>I can use different coins to make the same amount.</p> <p>I can solve simple problems involving money and give the correct change.</p> <p>I can tell and write the time to the nearest 15 minutes including quarter past and quarter to the hour.</p> <p>I can draw the hands on a clock face to show these times.</p> <p>I can compare and sequence intervals of time.</p>	<p>Add and subtract different measures to help me solve and explain a problem.</p> <p>I can read scales in 1's, 2's, 5's and 10's in practical situations when not all the numbers are on the scale and estimate points in between.</p> <p>Solve and explain problems involving addition and subtraction of money of the same unit, including giving change.</p> <p>Solve and explain simple problems involving time using a number line.</p> <p>I can read the time on a clock to the nearest 5 minutes.</p>

Geometry: Properties of Shapes		
<p>I can compare and sort common 2D and 3D shapes and everyday objects.</p> <p>Name some common 2D and 3D shapes from a group of pictures of the shapes and describe some of their properties (eg triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres).</p> <p>I can identify 2D shapes on the surface of 3D shapes.</p>	<p>xI can identify and describe the properties of 2D shapes including the number of sides, vertices and lines of symmetry.</p> <p>I can identify and describe the properties of 3D shapes including the number of edges, vertices, faces and lines of symmetry.</p> <p>I can identify and describe a vertical line of symmetry.</p>	<p>Describe similarities and differences of 2D and 3D shapes, using their properties (eg, that two different 2D shapes both have only one line of symmetry, that a cube and cuboid have the same number of edges, faces and vertices, but different dimensions).</p>
Geometry: Position, Direction, Motion		
<p>I can recognise, continue and make my own patterns.</p> <p>I can use the correct mathematical words to describe position, direction and movement.</p> <p>I can recognise right angles as quarter turns.</p>	<p>I can recognise, continue and make my own sequences of numbers.</p> <p>I can make quarter, half and three quarter turns clockwise and anti-clockwise.</p>	<p>Work with patterns of shapes and predict what will come next.</p> <p>Understand the concept and language of angles (right angles) to describe 'turn' by applying rotations, including in practical contexts.</p>
Statistics		
<p>Ask and answer simple questions by counting the number of objects in each category and sorting categories by quantities.</p> <p>I can make my own simple pictograms, tally charts, block diagrams and simple tables.</p>	<p>I can interpret simple pictograms, tally charts, block diagrams and simple tables.</p> <p>I can ask and answer questions about totalling and compare data.</p>	<p>Recognise simple pictograms, tally charts, block diagrams and tables.</p> <p>Be able to ask more complex questions about simple pictograms, tally charts, block diagrams and tables.</p>