



## ‘Together we unlock potential and learn for life’

### Moor First School – Progression in Maths

<b>Orange</b> 14% beginning 29% beginning +	<b>Orange</b> 43% developing 57% developing +	<b>Orange</b> /74 71% Secure 86% secure +	<b>Orange</b> /27 26% greater depth 1 56% greater depth 2 85% greater depth 3
<b>Number, Place Value and Rounding</b>			
<p><b>1. Count in 2’s, 5’s and 10’s from 0 and use this to solve problems.</b></p> <p>2. I am confident recording my thinking or working out on a number line.</p> <p><b>3. Read and write numbers in numerals up to 100.</b></p> <p>4. Compare numbers from 0 up to 100 using the greater than &gt; and the less than &lt; signs.</p> <p><b>5. I understand what tens and ones are and can use structured resources to begin to partition.</b></p> <p><small>Y2 Autumn expected = orange beginning Y2 Spring expected = orange developing Y2 Summer expected = orange secure</small></p>	<p>28. I can count forward in steps of 10 from any number up to 100 (e.g. 34, 44, 54, 64 ...).</p> <p>29. I can identify, represent and estimate numbers using a number line.</p> <p>30. I am confident in knowing the value of each digit in a 2-digit number.</p> <p>31. Compare and order numbers from 0 up to 100 using the greater than &gt; and less than &lt; and = signs.</p>	<p>50. I can count in 3’s.</p> <p>51. I can count backward in steps of 10 from any given number.</p> <p>52. I can identify, represent and estimate numbers using the expanded column method.</p> <p>53. I can read and write numbers to at least 100 (numerals and words).</p> <p>54. I can use my knowledge of place value and number facts to solve problems.</p> <p><b>55. I can partition any 2 digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.</b></p> <p style="text-align: center;"><b>15</b></p>	<p>75. Recognise and identify a multiple of 2, 5 and 10 of any given number.</p> <p>76. Recognise and understand the place value of each digit in a three-digit number (hundreds, tens, and ones).</p> <p>77. Accurately estimate numbers on an empty line and explain why they have placed my number in that position.</p> <p>78. Solve problems using &lt;, &gt; and = signs numbers up to 100 and explain my reasoning.</p> <p>79. Read numbers correctly in words when solving a mathematical problem.</p> <p>80. Explain the method I have used and how the problem was solved and why the answer is correct.</p>



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<p><b>6. Recall at least four of the six number bonds for 10 and reason about the associated facts (eg <math>6+4=10</math>, therefore <math>4+6=10</math> and <math>10-6=4</math>)</b></p> <p>7. I can solve addition and subtraction problems (with numbers up to and beyond 20).</p> <p>8. 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>9. I can add multiples of 10 to a 2-digit number (e.g. <math>34+20=54</math>) in my head.</p> <p>10. I understand that numbers can be added in any order.</p> <p>11. Recognise the inverse relationship between addition and subtraction (e.g. <math>6+4=10</math> so <math>10-4=6</math>).</p>	<p>32. I can solve addition and subtraction problems involving numbers, quantities and measures up to 100.</p> <p>33. I can add three 1-digit numbers in my head (e.g. <math>8+6+4=18</math>) or use objects.</p> <p><b>34. 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 <math>23 + 5</math>, <math>46 + 20</math>, <math>16 - 5</math>, <math>88 - 30</math>).</b></p> <p>35. I am beginning to add two 2-digit numbers in my head or use the expanded column method (e.g. <math>23+21</math> in my head but <math>28+26</math> using the expanded column method).</p> <p>36. I understand that when subtracting, the biggest number must go first.</p>	<p>56. I can recall and use number facts up to 100 (e.g. <math>70+30=100</math> and also <math>75+25=100</math>).</p> <p>57. 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><b>58. I can add and subtract two 2-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (eg <math>48 + 35</math>, <math>72 - 17</math>)</b></p> <p>59. 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><b>60. 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 <math>7 + 3 = 10</math> then <math>17 + 3 = 20</math>, if <math>7 - 3 = 4</math>, then <math>17 - 3 = 14</math>; leading to if <math>14+3=17</math> then <math>3 + 14 =17</math>, <math>17 - 14 = 3</math> and <math>17 - 3 =14</math>)</b></p> <p style="text-align: right;">16</p>	<p><b>81. 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?)</b></p> <p>82. Use fluent recall of subtraction and addition facts to support mental calculations.</p> <p>83. Use a written method to add and subtract two 2 digit numbers from 2 digit numbers.</p> <p>84. Be able to make 2 correct additions and 2 subtractions using 2 digit numbers.</p> <p><b>85. Use reasoning about numbers and relationships to solve more complex problems and explain their thinking.</b></p>
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Multiplication and Division

<p>12. I recognise odd and even numbers.</p> <p>13. I can recall the multiplication facts for the 2, 5 and 10 times tables.</p> <p>14. Solve simple multiplication and division sums using apparatus and arrays (e.g. multi-link).</p> <p>15. I understand that numbers can be multiplied in any order.</p>	<p>37. I am beginning to recall some related division facts (e.g. <math>6 \times 2 = 12</math> so <math>12 \div 2 = 6</math>).</p> <p>38. Solve multiplication and division sums in my head or using a number line.</p> <p>39. I understand that when dividing, the biggest number must go first.</p>	<p><b>61. 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.</b></p>	<p>86. Use commutativity and inverse relations to develop multiplicative reasoning (e.g. <math>4 \times 5 = 20</math> and <math>20 \div 5 = 4</math>).</p> <p>87. Recognise and use the inverse relationships between multiplication and division.</p> <p>88. Show and explain how knowing a multiplication fact helps me to solve a division word problem and record related number sentences.</p> <p><b>89. Recall and use multiplication and division facts for 2,5 and 10 and make deductions outside known multiplication facts.</b></p>
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Fractions, Decimals and Percentages

<p>16. I am beginning to find, name and write <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> (<math>\frac{1}{2}</math>) and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity.</p>	<p>40. I recognise there are 2 halves in a whole, 3 thirds in a whole and 4 quarters in a whole.</p> <p>41. I am beginning to recognise equivalent fractions (e.g. <math>\frac{2}{4}</math> is equal to <math>\frac{1}{2}</math>, or 6 halves are equal to 3 wholes).</p>	<p><b>62. Identify <math>\frac{1}{4}</math>, <math>\frac{1}{3}</math>, <math>\frac{1}{2}</math>, <math>\frac{2}{4}</math>, <math>\frac{3}{4}</math> of a number or shape, and know that all parts must be equal parts of the whole.</b></p> <p>63. I can use my knowledge of equivalent fractions.</p> <p><b>13</b></p>	<p>90. Solve and explain how to use fractions when solving problems using shape, objects and quantities.</p> <p>91. 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>17. I can carefully measure length, height (m/cm), mass (kg, g), temperature (°c) and capacity (l/ml)</p> <p><b>18. I can read scales in divisions of ones, twos, fives and tens.</b></p> <p>19. I can recognise and use the £ and p symbols.</p> <p><b>20. Know the value of different coins</b></p> <p>21. I am beginning to solve simple problems practically involving the addition and subtraction of money.</p> <p>22. There are 60 minutes in an hour and 24 hours in a day.</p>	<p>42. I can estimate length, height (m/cm), mass (kg, g), temperature (°c) and capacity (l/ml) using standard units.</p> <p>43. I can combine amounts of money to make a given value.</p> <p><b>44. I can tell and write the time to the nearest 15 minutes including quarter past and quarter to the hour.</b></p> <p>45. I can compare and sequence intervals of time.</p>	<p>64. I can choose appropriate units to measure in and compare and order measurements.</p> <p>65. I can record measurements using the &lt;, &gt; and = signs.</p> <p><b>66. I can use different coins to make the same amount.</b></p> <p>67. I can solve simple problems involving money and give the correct change.</p> <p>68. I can draw the hands on a clock face to show these times.</p> <p style="text-align: right;"><b>15</b></p>	<p>92. Add and subtract different measures to help me solve and explain a problem.</p> <p><b>93. 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.</b></p> <p>94. Solve and explain problems involving addition and subtraction of money of the same unit, including giving change.</p> <p>95. Solve and explain simple problems involving time using a number line.</p> <p><b>96. I can read the time on a clock to the nearest 5 minutes.</b></p>



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Geometry: Properties of Shapes.			
<p>23. I can compare and sort common 2D and 3D shapes and everyday objects.</p> <p><b>24. 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).</b></p>	<p><b>46. I can identify and describe the properties of 2D shapes including the number of sides, vertices and lines of symmetry.</b></p> <p>47. I can identify 2D shapes on the surface of 3D shapes.</p>	<p><b>69. I can identify and describe the properties of 3D shapes including the number of edges, vertices, faces and lines of symmetry.</b></p> <p>70. I can identify and describe a vertical line of symmetry.</p>	<p><b>97. 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.</b></p>
Geometry: Position, Direction, Motion			
<p>25. I can recognise, continue and make my own patterns.</p> <p>26. I can use the correct mathematical words to describe position, direction and movement.</p>	<p>48. I can recognise right angles as quarter turns.</p>	<p>71. I can recognise, continue and make my own sequences of numbers.</p> <p>72. I can make quarter, half and three quarter turns clockwise and anti-clockwise.</p>	<p>98. Work with patterns of shapes and predict what will come next.</p> <p>99. Understand the concept and language of angles (right angles) to describe ‘turn’ by applying rotations, including in practical contexts.</p>
Statistics			
<p>27. Ask and answer simple questions by counting the number of objects in each category and sorting categories by quantities.</p>	<p>49. I can make my own simple pictograms, tally charts, block diagrams and simple tables.</p>	<p>73. I can interpret simple pictograms, tally charts, block diagrams and simple tables.</p> <p>74. I can ask and answer questions about totalling and compare data.</p>	<p>100. Recognise simple pictograms, tally charts, block diagrams and tables.</p> <p>101. Be able to ask more complex questions about simple pictograms, tally charts, block diagrams and tables.</p>



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