

# TARGETS

## Band 6 Maths

**Name:** \_\_\_\_\_

### NUMBER AND PLACE VALUE

<b>1</b>	I can read, write, order and compare numbers up to at least 10,000,000 (ten million) and say the value of each digit.	The pupil can demonstrate an understanding of place value, including large numbers and decimals (e.g. what is the value of the '7' in 276,541?; find the difference between the largest and smallest whole numbers that can be made from using three digits; $8.09 = 8 + 9?$ ; $28.13 = 28 + + 0.03$ ).
<b>2</b>	<i>I can round any number to a required degree of accuracy.</i>	
<b>3</b>	<i>I can use negative numbers in context when looking at temperature or money, counting in jumps forwards and backwards through 0.</i>	
<b>4</b>	I can solve number and practical problems that involve ordering and comparing numbers up to 10,000,000 (ten million) rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero.	
<b>5</b>	I can show an understanding of place value including decimals.	

### ADDITION AND SUBTRACTION

<b>6</b>	I can mentally calculate using a mix of the four operations.	The pupil can calculate mentally, using efficient strategies such as manipulating expressions using commutative and distributive properties to simplify the calculation (e.g. $53 - 82 + 47 = 53 + 47 - 82 = 100 - 82 = 18$ ; $20 \times 7 \times 5 = 20 \times 5 \times 7 = 100 \times 7 = 700$ ; $53 \div 7 + 3 \div 7 = (53 + 3) \div 7 = 56 \div 7 = 8$ ).
<b>7</b>	<i>I can solve problems with more than one step and operation and explain why I used them.</i>	
<b>8</b>	I can solve addition and subtraction word and practical problems.	
<b>9</b>	<i>I can use estimation to check answers to calculations and determine an appropriate degree of accuracy.</i>	

### MULTIPLICATION AND DIVISION

<b>10</b>	<i>I can multiply numbers of up to 4 digits by a two-digit number using a formal written method.</i>	The pupil can use formal methods to solve multi-step problems (e.g. find the change from £20 for three items that cost £1.24, £7.92 and £2.55; a roll of material is 6m long: how much is left when 5 pieces of 1.15m are cut from the roll?; a bottle of drink is 1.5 litres, how many cups of 175ml can be filled from the bottle, and how much drink is left?).
<b>11</b>	I can divide numbers of up to 4 digits by a two-digit number using a formal written method of long division, showing remainders, fractions or rounding as appropriate.	
<b>12</b>	<i>I can divide numbers of up to 4 digits by a two-digit number using a formal written method of short division, showing remainders, fractions or rounding as appropriate.</i>	
<b>13</b>	I can mentally calculate using a mix of the four operations and increasingly large numbers.	
<b>14</b>	I can identify common factors, multiples and prime numbers.	
<b>15</b>	I can use the order of importance of the four operations when answering questions.	
<b>16</b>	I can solve addition and subtraction multi-step problems, deciding which operations and methods to use and explaining why they were suitable.	
<b>17</b>	I can solve problems involving addition, subtraction, multiplication and division.	
<b>18</b>	<i>I can use estimating to check answers and problem solving.</i>	

### FRACTIONS

<b>19</b>	I can use common factors and multiples to simplify fractions and express fractions in the same denomination.	The pupil can recognise the relationship between fractions, decimals and percentages and can express them as equivalent quantities (e.g. one piece of cake that has been cut into 5 equal slices can be expressed as 15 or 0.2 or 20% of the whole cake).
<b>20</b>	I can compare and order fractions including those bigger than 2.	
<b>21</b>	I can add and subtract fractions with different denominators and mixed numbers.	
<b>22</b>	I can multiply simple pairs of proper fractions, writing the answer in the simplest form such as $1/4 \times 1/2 = 1/8$ .	
<b>23</b>	I can divide proper fractions by whole numbers such as $1/3 \div 2 = 1/6$ .	The pupil can calculate using fractions, decimals or percentages (e.g. knowing that 7 divided by 21 is the same as 7 21 and that this is equal to 13; 15% of 60;
<b>24</b>	I can link a fraction with division and work out decimal fractions such as knowing that 7 divided by 21 is the same as $7/21$ and that this is equal to $1/3$ , and 0.378 is $3/8$ as a simple fraction.	
<b>25</b>	I can explain the place value of any digit in a number with up to 3 decimal places and multiply or divide these by 10, 100 or 1000.	
<b>26</b>	I can multiply numbers less than 10 with up to 2 decimal places by whole numbers.	
<b>27</b>	<i>I can use written division methods for numbers with up to 2 decimal places.</i>	

28	<i>I can solve problems which require answers to be rounded to specified degrees of accuracy.</i>	112 + 34; 79 of 108; 0.8 × 70).
29	<i>I can use equivalences between simple fractions, decimals and percentages to help me solve problems.</i>	
<b>MEASUREMENT</b>		
30	I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to three places if I need to.	The pupil can substitute values into a simple formula to solve problems (e.g. perimeter of a rectangle or area of a triangle).  The pupil can calculate with measures (e.g. calculate length of a bus journey given start and end times; convert 0.05km into m and then into cm).
31	<i>I can use, read, write and convert between standard units.</i>	
32	<i>I can convert measurement of length, mass, volume and time from a smaller unit to a larger unit and vice versa. I can do this using decimal notation up to the three decimal places.</i>	
33	I can convert between miles and kilometres.	
34	I can recognise that shapes with the same areas can have different perimeters and vice versa.	
35	I can recognise when it is possible to use formulae to find the areas or volumes of shapes.	
36	I can calculate the areas of parallelograms and triangles.	
37	I can calculate, estimate and compare volumes of cubes and cuboids using standard units, including cubic centimetres (cm <sup>3</sup> ), and cubic metres (m <sup>3</sup> ). I can extend this to other units e.g. mm <sup>3</sup> and km <sup>3</sup> .	
<b>PROPERTIES OF SHAPE</b>		
38	I can draw 2-D shapes using dimensions and angles I am given.	The pupil can use mathematical reasoning to find missing angles (e.g. the missing angle in an isosceles triangle when one of the angles is given; the missing angle in a more complex diagram using knowledge about angles at a point and vertically opposite angles).
39	I can recognise, describe and build simple 3-D shapes, including making nets.	
40	<i>I can compare and classify geometric shapes based on their properties and sizes. I can also find unknown angles in any triangles, quadrilaterals or regular polygons.</i>	
41	I can illustrate and name parts of circles, including radius, diameter and circumference. I know that the diameter is twice the radius.	
42	I can recognise angles where they meet at a point are on a straight line or are vertically opposite. I can then find any missing angles.	
<b>POSITION AND DIRECTION</b>		
43	I can describe positions in all four quadrants on a full coordinate graph.	
44	<i>I can draw and translate simple shapes on the coordinate plane and reflect these in the axis.</i>	
<b>STATISTICS</b>		
45	<i>I can interpret and construct pie charts and line graphs. I can use these to solve problems.</i>	
46	<i>I can calculate and interpret the mean as an average.</i>	
<b>RATIO AND PROPORTION</b>		
47	I can solve problems that involve the relative sizes of two things where the missing number can be found by multiplying or dividing by whole numbers.	
48	<i>I can solve problems involving the calculation of percentages. I can also use percentages for comparisons.</i>	
49	I can solve problems involving shapes where the scale factor is known or can be found.	
50	<i>I can solve problems involving unequal sharing and grouping. I can use my knowledge of fractions and multiples to do this.</i>	
<b>ALGEBRA</b>		
51	<i>I can use simple formulae.</i>	
52	I can create and describe linear number sequences.	
53	I can record missing number problems algebraically.	
54	I can find pairs of numbers which complete an equation with two unknowns.	
55	I can create a list of possibilities of the combination of two variables.	