

Year 6 Mathematician

	TARGETS	SEEN	SECURE
	Number – Place Value		
1	I can read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.		
2	I can round any whole number to a required degree of accuracy.		
3	I can use negative numbers in context and calculate intervals across zero.		
4	I can solve number problems and practical problems that involve rounding, negative numbers, ordering and comparing values up to 10,000,000.		
	Number – Four areas of calculation		
5	I can identify common factors, common multiples and prime numbers.		
6	I can multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication.		
7	I can divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division or short division and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.		
8	I can perform mental calculations, including with mixed operations and large numbers.		
9	I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.		
10	I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		
11	I can solve problems involving addition, subtraction, multiplication and division.		
12	I can use my knowledge of the order of operations to carry out calculations involving the four operations.		
1	I can move beyond squared and cubed numbers to calculate problems such as $X \times 10^n$ where n is positive.		
2	I can multiply all integers, (using efficient written methods) including mixed numbers and negative numbers.		
3	I can recognise an arithmetic progression and find the n th term.		
	Number - Fractions (including decimals and percentages)		
13	I can use common factors to simplify fractions.		
14	I can use common multiples to express fractions in the same denomination.		
15	I can compare and order fractions, including fractions >1 .		
16	I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.		
17	I can multiply simple pairs of proper fractions, writing the answer in the simplest form e.g. $\square \times \square = 1/8$.		
18	I can divide proper fractions by whole numbers e.g. $1/3 \div 2 = 1/6$.		
19	I can associate a fraction with division to calculate decimal fractions equivalents (0.375) for a simple fraction (3/8).		
20	I can identify the value of each digit to 3 decimal places.		
21	I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places (linked to measurement).		
22	I can multiply 1-digit numbers with up to 2 decimal places by whole numbers.		
23	I can use written division methods in cases where the answer has up to 2 decimal places.		
24	I can solve problems which require answers to be rounded to specified degrees of accuracy.		
25	I can recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		
	Ratio and Proportion		
26	I can solve problems involving the relative sizes of two quantities, where missing values can be found using multiplication and division facts (e.g. recipes and size of shapes)		
27	I can solve problems involving the calculation of percentages and the use of percentage comparisons (e.g. 15% of 360).		
28	I can solve problems involving similar shapes where the scale factor is known or can be found.		

Eastfield Mathematics Expectations

29	I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples (e.g. Emma gets $\frac{2}{3}$ of £150. Erica gets $\frac{1}{3}$. How much does Erica have?)		
Algebra			
30	I can express missing number problems algebraically.		
31	I can use simple formulae.		
32	I can generate and describe linear number sequences.		
4	I can generate and describe my own formula for linear equations for the n th term.		
33	I can find pairs of numbers that satisfy an equation with two unknowns.		
5	I can explain how to find pairs of numbers that satisfy an equation with two unknowns.		
34	I can enumerate possibilities of combinations of two variables (e.g. if m is between 0-10 and n is between 10-15, what could $m + n = ?$).		
Measurement			
35	I can use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation of up to 3 decimal places.		
36	I can convert between miles and kilometres.		
37	I recognise that shapes with the same areas can have different perimeters and vice versa.		
38	I can calculate the area of parallelograms and triangles.		
39	I recognise when it is possible to use the formulae for the area and volume of shapes.		
40	I can calculate, estimate and compare volume of cubes and cuboids, using standard units and extending to other units.		
41	I can solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate.		
Geometry – Properties of Shapes			
42	I can compare and classify geometric shapes based on the properties and sizes.		
43	I can draw 2D shapes given dimensions and angles.		
44	I recognise, describe and build simple 3D shapes, including making nets.		
45	I can find unknown angles in any triangles, quadrilaterals and regular polygons.		
46	I recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.		
47	I can illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.		
Geometry – Position and Direction			
48	I can describe positions on the full co-ordinate grid (all four quadrants).		
49	I can draw and translate simple shapes on the co-ordinate plane and reflect them in the axes.		
Statistics			
50	I can interpret and construct line graphs and pie charts and use these to solve problems.		
51	I can calculate and interpret the mean as an average.		