

Year 6 Maths Target Tracker Statements

Number and Place Value	Measurement
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. E.g. Find the difference between the largest and smallest whole numbers that can be made of three digits.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
Round any whole number to a required degree of accuracy.	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 to up to three decimal places.
Use negative numbers in context and calculate intervals across zero.	
Solve number and practical problems that involve ordering and comparing numbers to 10 000 000 rounding to a required degree of accuracy, using negative numbers and calculating intervals across zero	
Demonstrate an understanding of place value including decimals e.g. $28.13 = 28 + ? + 0.03$	Convert between miles and kilometres
Demonstrate an understanding of place value including decimals e.g. $28.13 = 28 + ? + 0.03$	Recognise that shapes with the same areas can have different perimeters and vice versa
Addition and Subtraction	Recognise when it is possible to use formulae for area and volume of shapes
Perform mental calculations with mixed operations to carry out calculations involving the four operations.	Calculate the area of parallelograms and triangles
Solve multi-step problems in contexts, deciding which operations and methods to use and why e.g. find the change from £20 for three items that cost £1.24, £7.2 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 1275ml can be filled from the bottle, and how much drink is left?	Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³ , and extending to other units e.g. mm ³ and km ³
Solve problems involving addition and subtraction.	Properties of Shape
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Draw 2-D shapes using given dimensions and angles
	Recognise, describe and build simple 3-D shapes, including making nets
Multiplication and Division	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	
Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.	
Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles
Perform mental calculations, including with mixed operations and large numbers.	Position and Direction
	Describe positions on the full coordinate grid (all four quadrants)
	Use formal written methods to solve multi-step problems.
Identify common factors, common multiples and prime numbers.	

Use his/her knowledge of the order of operations to carry out calculations involving the four operations	Statistics
	Interpret and construct pie charts and line graphs and use these to solve problems
Solve addition and subtraction multi-step problems in contexts, deciding which operation and methods to use and why.	Calculate and interpret the mean as an average
	Ratio and Proportion
Solve problems involving addition, subtraction, multiplication and division	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts e.g. find $\frac{7}{9}$ of 108
Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	Solve problems involving the calculation of percentages e.g. of measures, and such as 15% of 360 and the use of percentages for comparison
Fractions	
Use common factors to simplify fractions; use common multiples to express fractions in the same denomination	Solve problems involving similar shapes where the scale factor is known or can be found
Read and write decimal numbers as fractions e.g. $0.71 = \frac{71}{100}$ $8.09 = 8 \text{ and } \frac{9}{100}$	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Compare and order fractions, including fractions > 1	
Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	Algebra
Multiply simple pairs of proper fractions, writing the answer in its simplest form e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$.	Use simple formulae e.g. perimeter of a rectangle or area of a triangle
Divide proper fractions by whole numbers e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$	Generate and describe linear number sequences
Associate a fraction with division and calculate decimal fraction equivalents e.g. know that 7 divided by 21 is the same as $\frac{7}{21}$ and that this is equal to $\frac{1}{3}$ and e.g. 0.375 is equivalent to $\frac{3}{8}$	Express missing number problems algebraically
	Find pairs of numbers that satisfy an equation with two Unknowns
Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	Enumerate possibilities of combinations of two variables
Multiply one-digit numbers with up to two decimal places by whole numbers.	
Use written division methods in cases where the answer has up to two decimal places.	
Solve problems which require answers to be rounded to specified degrees of accuracy.	
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts e.g. one piece of cake that has been cut into 5 equal slices can be expressed as $\frac{1}{5}$ or 0.2 or 20% of the whole cake.	
Recognise the relationship between fractions, decimals and percentages and can express them as equivalent quantities.	

Working at the expected standard

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; $8.09 = 8 + \frac{9}{100}$; $28.13 = 28 + \frac{13}{100} = 28 + 0.13$)

- calculate mentally, using efficient strategies such as manipulating expressions using commutative and distributive properties to simplify the calculation (e.g. $53 - 82 + 47 = 53 + 47 - 82 = 100 - 82 = 18$; $20 \times 7 \times 5 = 20 \times 5 \times 7 = 100 \times 7 = 700$; $53 \div 7 + 3 \div 7 = (53 + 3) \div 7 = 56 \div 7 = 8$)
- 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?)
- 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 $\frac{1}{5}$ or 0.2 or 20% of the whole cake)
- calculate using fractions, decimals or percentages (e.g. knowing that 7 divided by 21 is the same as $\frac{7}{21}$ and that this is equal to $\frac{1}{3}$; 15% of 60; $\frac{11}{2} + \frac{3}{4}$; $\frac{7}{9}$ of 108; 0.8×70)
- substitute values into a simple formula to solve problems (e.g. perimeter of a rectangle or area of a triangle)
- 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)
- 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).