Mathematics Targets   **Pupil's Name:** _____

A Year 6 Mathematician

TARGETS	Pupil Assessment	SECURE
Number, place value, approximation and estimation/rounding		
I can read, write, order and compare numbers up to10,000,000.	🟢 🟠 🔴	
I can determine the value of each digit in numbers up to 10,000,000.	🟢 🟠 🔴	
I can round any whole number to a required degree of accuracy.	🟢 🟠 🔴	
I can use negative numbers in context, and calculate intervals across zero.	🟢 🟠 🔴	
I can solve number problems and practical problems with the above.	🟢 🟠 🔴	
Calculations		
I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	🟢 🟠 🔴	
I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	🟢 🟠 🔴	
I can identify common factors, common multiples and prime numbers.	🟢 🟠 🔴	
I can perform mental calculations, including with mixed operations and large numbers.	🟢 🟠 🔴	
I can multiply multi-digit numbers up to 4 digits by a 2 digit whole number using the formal written method of long multiplication.	🟢 🟠 🔴	
I can divide numbers up to 4 digits by a 2 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.	🟢 🟠 🔴	
I can divide numbers up to 4 digits by a 2 digit number using the formal written method of short division where appropriate.	🟢 🟠 🔴	
I can solve problems involving addition, subtraction, multiplication and division.	🟢 🟠 🔴	
I can use my knowledge of the order of operations to carry out calculations involving the four operations.	🟢 🟠 🔴	

Mathematics Targets   Pupil's Name: _____

A Year 6 Mathematician

TARGETS	Pupil Assessment	SECURE
Fractions, decimals and percentages		
I can use common factors to simplify fractions and use common multiples to express fractions in the same denomination.	🟢 🟠 🔴	
I can compare and order fractions, including fractions >1.	🟢 🟠 🔴	
I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	🟢 🟠 🔴	
I can multiply simple pairs of proper fractions, writing the answer in the simplest form.	🟢 🟠 🔴	
I can divide proper fractions by whole numbers.	🟢 🟠 🔴	
I can associate a fraction with division to calculate decimal fractions equivalents for a simple fraction.	🟢 🟠 🔴	
I can identify the value of each digit to 3 decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 decimal places.	🟢 🟠 🔴	
I can multiply 1-digit numbers with up to 2 decimal places by whole numbers.	🟢 🟠 🔴	
I can use written division methods in cases where the answer has up to 2 decimal places.	🟢 🟠 🔴	
I can solve problems which require answers to be rounded to specified degrees of accuracy.	🟢 🟠 🔴	
I an recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	🟢 🟠 🔴	
Ratio and proportion		
I can solve problems involving the relative sizes of two quantities, where missing values can be found using integer multiplication and division facts.	🟢 🟠 🔴	
I can solve problems involving the calculation of percentages and the use of percentage comparisons.	🟢 🟠 🔴	
I can solve problems involving similar shapes where the scale factor is known or can be found.	🟢 🟠 🔴	
I can solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	🟢 🟠 🔴	
Algebra		
I can express missing number problems algebraically.	🟢 🟠 🔴	
I can use simple formulae.	🟢 🟠 🔴	
I can generate and describe linear number sequences.	🟢 🟠 🔴	
I can find pairs of numbers that satisfy an equation with two unknowns.	🟢 🟠 🔴	
I can enumerate possibilities of combinations of two variables.	🟢 🟠 🔴	

A Year 6 Mathematician

TARGETS	Pupil Assessment	SECURE
Measurement		
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.	🟢 🟠 🔴	
I can convert between miles and kilometres.	🟢 🟠 🔴	
I recognise that shapes with the same areas can have different perimeters and vice versa.	🟢 🟠 🔴	
I can calculate the area of parallelograms and triangles.	🟢 🟠 🔴	
I recognise when it is possible to use the formulae for the area of shapes.	🟢 🟠 🔴	
I can calculate, estimate and compare volume of cubes and cuboids, using standard units.	🟢 🟠 🔴	
I recognise when it is possible to use the formulae for the volume of shapes.	🟢 🟠 🔴	
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		
I can compare and classify geometric shapes based on the properties and sizes.	🟢 🟠 🔴	
I can describe simple 3D shapes.	🟢 🟠 🔴	
I can draw 2D shapes given dimensions and angles.	🟢 🟠 🔴	
I recognise and build simple 3D shapes, including making nets.	🟢 🟠 🔴	
I can find unknown angles in any triangles, quadrilaterals and regular polygons.	🟢 🟠 🔴	
I recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	🟢 🟠 🔴	
I can illustrate and name parts of circles, including radius, diameter and circumference.	🟢 🟠 🔴	
I know the diameter is twice the radius.	🟢 🟠 🔴	
Geometry – position and direction		
I can draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes.	🟢 🟠 🔴	
I can describe positions on the full co-ordinate grid (all four quadrants).	🟢 🟠 🔴	
Statistics		
I can interpret and construct pie charts and line graphs and use these to solve problems	🟢 🟠 🔴	
I can calculate and interpret the mean as an average.	🟢 🟠 🔴	

Exceeding Year 6 Expectations

TARGETS	Pupil Assessment	SECURE
I can compare, order and convert between fractions, decimals and percentages, for example, in contexts related to science, history or geography learning	🟢 🟠 🔴	
I can move beyond squared and cubed numbers to calculate problems such as $X \times 10^n$ where n is positive.	🟢 🟠 🔴	
I can use =, ≠, <, >, ≤, ≥ correctly.	🟢 🟠 🔴	
I can multiply all integers, (using efficient written methods) including mixed numbers and negative numbers.	🟢 🟠 🔴	
I can recognise an arithmetic progression and find the nth term .	🟢 🟠 🔴	
I can use a formula for measuring the area of a shape, such as a rectangle and triangle to work out the area of an irregular shape in the school environment	🟢 🟠 🔴	
I can use the four operations with mass, length, time, money and other measures, including the use of decimal quantities.	🟢 🟠 🔴	
I can create a scaled model of an historical or geographical structure showing an acceptable degree of accuracy using known measurements.	🟢 🟠 🔴	
I can calculate the costs and time involved of a visit to a destination in another part of the world relating to on-going learning in history or geography.	🟢 🟠 🔴	
I can collect my own data on a personal project and present information in formats of my choosing, using charts, graphs and tables, and answer specific questions related to my research.	🟢 🟠 🔴	