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

A Year 1 Mathematician

Fluency Focus: Numbers up to 100 through a wide variety of models and representations

TARGETS	SEEN	SECURE
Number and place value		
I can count to and across 100, forward and backwards, beginning with 0 or 1 from any number.		
I can count in multiples of 2, 5 and 10.		
I can count, read and write numbers to 100 in numerals.		
I can say what is one more or one less than any number.		
I can read and write numbers from 1 to 20 in numerals and words.		
I can identify and represent numbers using objects and pictorial representations including the number line and use the language of: equal to, more than, less than (fewer), most least		
I have begun to see the relationship between adding and subtracting, including the effect of adding or subtracting 0		
Calculations		
I can represent and use number bonds and related subtraction facts to 20.		
I can add and subtract 1-digit and 2-digit numbers to 20, including zero.		
I can read, write and interpret mathematical statements involving addition, subtraction and equals signs.		
I can solve one-step problems that involve addition and subtraction, using objects and pictorial representations.		
I can solve missing number problems.		
I can solve one-step problems involving multiplication and division, by using concrete objects, pictorial representations and arrays.		
I can recognise and create repeating patterns with objects and shapes		
I can create number sentences that mean the same (ie 2 + 5 = 5 + 2)		
Fractions		
I can recognise, find and name a half of an object, shape or quantity.		

I can recognise, find and name a quarter of an object, shape or quantity.		
Measurement		
I can compare, describe and solve practical problems for lengths and heights; mass/weight; capacity and volume; and time		
I can measure and begin to record lengths and heights; mass/weight; capacity and volume; and time (in hours, minutes and seconds)		
I recognise and know the value of different denominations of coins and notes.		
I can tell the time to the hour.		
I can tell the time to half past the hour.		
I can draw hands on a clock face to show these times.		
I can sequence events in chronological order using language.		
I recognise and use language relating to time and dates, including seconds, minutes, hours, days, weeks, months and years		
Geometry – properties of shapes		
I recognise and can name common 2D shapes (rectangles, including squares, circles and triangles.)		
I recognise and can name common 3D shapes (cuboids, including cubes, pyramids and spheres.)		
Geometry – position and direction		
I can describe position, directions and movement, including half, quarter and three-quarter turns.		
Statistics		
I have begun to compare, sort and classify information (including in other subjects)		
I have begun to construct simple pictograms and tables		

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

A Year 2 Mathematician

Fluency focus: Numbers with up to and beyond 3 digits (read and write numbers up to at least 100 in numerals and words)

TARGETS	SEEN	SECURE
Number and place value		
I can count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.		
I can read and write numbers to at least 100 in numerals and in words.		
I can compare and order numbers from 0 up to 100; using < > = signs.		
I recognise the place value of each digit in a 2-digit number.		
I can identify, represent and estimate numbers using different representations, including the number line.		
I can use place value and number facts to solve problems.		
Calculations		
I can recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.		
I can add and subtract mentally, including:		
A 2-digit number and ones		
A 2-digit number and tens		
Two 2-digit numbers		
Adding three 1-digit numbers		
I can add and subtract numbers using concrete objects and pictorial representations, including:		
A 2-digit number and ones		
A 2-digit number and tens		
Two 2-digit numbers		
Adding three 1-digit numbers		
I recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.		
I can solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.		
I can solve problems with addition and subtraction applying my increasing knowledge of mental and written methods.		
I can recall and use multiplication and division facts for the 2, 5 and 10x tables, including recognising odd and even numbers.		

I can calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication, division and equals signs.		
I can solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context.		
I can show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.		
I can show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.		
I can recognise patterns within the number system up to and beyond 100		
Fractions		
I recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity.		
I can write simple fractions, eg ½ of 6 = 3		
I recognise the equivalence of 2/4 and 1/2.		
Measurement		
I can compare and order lengths, mass, volume/capacity and record the results using > < and =.		
I can choose and use standard units to estimate and measure length/height in any direction in m and cm using rulers.		
I can choose and use standard units to estimate and measure mass in kg and g using scales.		
I can choose and use standard units to estimate and measure temperature in ºC using thermometers.		
I can choose and use standard units to estimate and measure capacity in l and ml using measuring vessels.		
I recognise and use symbols for £ and p and combine amounts to make a particular value.		
I can use measuring apparatus accurately (eg rulers, scales, vessels)		
I can tell and write the time to five minutes, including quarter to/past and draw the hands on a clock face to show these times.		
I can compare and sequence intervals of time.		
I know the number of minutes in an hour.		
I know the number of hours in a day.		

I can solve simple problems in a practical context involving addition and subtraction of money of the same units, including giving change.		
Geometry – properties of shapes		
I can compare and sort common 2D shapes and everyday objects.		
I can compare and sort common 3D shapes and everyday objects.		
I can identify and describe the properties of 2D shapes, including the number of sides and line of symmetry in a vertical line.		
I can identify and describe the properties of 3D shapes including the number of edges, vertices and faces.		
I can identify 2D shapes on the surface of 3D shapes.		
Geometry – position and direction		
I can order and arrange combinations of mathematical objects in patterns and sequences.		
I can use mathematical vocabulary to describe position, direction and movement		
Statistics		
I can interpret and construct simple pictograms.		
I can interpret and construct tally charts.		
I can interpret and construct block diagrams.		
I can interpret and construct simple tables.		
I can ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.		
I can ask and answer questions about totalling and comparing categorical data.		

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

A Year 3 Mathematician

Fluency Focus: Numbers with up to at least 3 digits (whole numbers and decimals with up to 1 dp) through a wide variety of models and representations

TARGETS	SEEN	SECURE
Number, place value, approximation and estimation/rounding		
I can count from 0 in multiples of 4, 8, 50 and 100.		
I can compare and order numbers up to 1,000.		
I can read and write numbers to 1,000 in numerals and words.		
I can find 10 or 100 more or less than a given number.		
I can recognise the place value of each digit in a 3-digit number.		
I can identify, represent and estimate numbers using different representations.		
I can solve number problems and practical problems within the context of the fluency focus.		
Calculations		
I can add and subtract mentally, including:		
A 3-digit number and ones		
A 3-digit number and tens		
A 3-digit number and hundreds		
I can add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.		
I can estimate the answer to a calculation and use inverse operation to check answers.		
I can solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.		
I can recall and use multiplication and division facts for the 3x, 4x and 8x tables.		
I can write and calculate mathematical statements for multiplication and division using the multiplication tables, including for 2-digit numbers, using mental and progressing to formal written methods.		
I can solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects. (eg 3 hats, 4 coats, how many different outfits?)		

I can begin to generalise using simple algebraic statements – eg there are 4 chairs for every table, calculate the chairs needed for 8/10/n tables		
Fractions, decimals and percentages		
I can count up and down in tenths.		
I recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10.		
I recognise and can find and write factions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.		
I can compare and order unit fractions and factions with the same denominators.		
I can add and subtract factions with the same denominator within one whole.		
I can solve problems involving the above.		

Measurement		
I can compare lengths using m, cm &mm.		
I can compare mass using kg & g.		
I can compare volume/capacity using l & ml.		
I can measure lengths using m, cm & mm.		
I can measure mass using kg & g.		
I can measure volume/capacity using l & ml.		
I can add and subtract lengths using m, cm & mm.		
I can add and subtract mass using kg & g.		
I can add and subtract volume/capacity using l & ml.		
I can tell and write the time from an analogue clock (12 hour clock).		
I can tell and write the time from an analogue clock (24 hour clock).		
I can tell and write the time from an analogue clock (Roman numerals).		
I can estimate and read time with increasing accuracy to the nearest minute.		
I can record and compare time in terms of seconds, minutes and hours.		
I can use the following vocabulary: o'clock, am, pm, morning, afternoon, noon & midnight.		
I know the number of seconds in a minute.		

I know the number of days in each month, year and leap year.		
I can compare the duration of events.		
I can measure the perimeter of simple 2D shapes.		
I can add and subtract amounts of money to give change, using both £ and p in a practical context.		
I can solve problems in practical tasks involving time, length, mass and capacity/volume		
Geometry – properties of shapes		
I can identify horizontal, vertical lines and pairs of perpendicular and parallel lines.		
I can draw and describe 2D shapes and their properties, including reflective symmetry, regular and irregular shapes.		
I can make 3D shapes using modelling materials.		
I recognise 3D shapes in different orientations and describe them by their properties.		
I recognise that angles are a property of shape or a description of a turn.		
I can identify right angles.		
I recognise that two right angles make a half-turn & three make a three quarter turn.		
I can identify whether angles are greater than or less than a right angle.		
Statistics		
I can interpret and present data using bar charts, pictograms and tables.		
I can use a key to represent interpreted data and use simple scales in pictograms and bar charts.		
I can solve one-step and two-step questions using information presented in scaled bar charts, pictograms and tables.		

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

A Year 4 Mathematician

Fluency focus: Numbers up to and including 4 digits (whole numbers and decimal numbers up to 2 decimal places) through a wide variety of models and representations

TARGETS	SEEN	SECURE
Number, place value, approximation and estimation/rounding		
I can count in multiples of 6, 7, 9, 25 and 1,000.		
I can order and compare numbers beyond 1,000.		
I can count forward and backward in intervals of 10, 100 and 1000 from any given number		
I can find 1,000 more or less than a given number.		
I recognise the place value of each digit in a 4-digit number.		
I can read Roman numerals to 100 and know that over time the numeral system changed to include the concept of zero and place value.		
I can identify, represent and estimate numbers using different representations.		
I can round any number to the nearest 10, 100 or 1,000.		
I can count backwards through zero to include negative numbers.		
I can solve number and practical problems within the context of the fluency focus		
Calculations		
I can add and subtract numbers with up to 4-digits using the formal written methods of columnar addition and subtraction.		
I can estimate and use inverse operations to check answers in a calculation.		
I can solve addition and subtraction 2-step problems in contexts, deciding which operations and methods to use and why.		
I can recall multiplication and division facts up to 12x12.		
I can use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.		
I recognise and use factor pairs and commutativity in mental calculations.		
I can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.		
I can solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1-digit,		

integer scaling problems and harder correspondence problems such as n objects are connected to m objects.		
I have begun to use simple formulae expressed in words eg in perimeter		
I understand and apply the commutative, associative and distributive 'rules' when solving calculations. E.g 7x8=(5x8)+(2x8) (distributive) = 7x2x4 (associative)		
Fractions, decimals and percentages		
I can count up and down in hundredths.		
I recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.		
I recognise and show using diagrams, families of common equivalent fractions.		
I can add and subtract fractions within the same denominator.		
I recognise and write decimal equivalents to 1/4, 1/2 and ¾.		
I recognise and write decimal equivalents of any number of tenths or hundredths.		
I can round decimals with one decimal place to the nearest whole number.		
I can compare numbers with the same number of decimal places up to 2 decimal places.		
I can find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.		
I can solve problems involving increasingly harder fractions and fractions to divide quantities, including non-unit fractions where the answer is a whole number.		
I can solve simple measure and money problems involving fractions and decimals to 2 decimal places.		
Measurement		
I can compare different measures, including money in £ and p.		
I can estimate different measures, including money in £ and p.		
I can calculate different measures. Including money in £ and p.		
I can read, write and convert time between analogue and digital 12 hour clocks.		
I can read, write and convert time between analogue and digital 24 hour clocks.		
I can solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.		
I can convert between different units of measurements		
I can measure and calculate the perimeter of a rectilinear figure in cm and m.		

I can find the area of rectilinear shapes by counting squares.		
I can convert different measures		
I can solve time durations which pass through the hour		
Geometry – properties of shapes		
I can compare and classify geometric shapes, including quadrilateral and triangles based on their properties and sizes.		
I can identify lines of symmetry in 2D shapes presented in different orientations.		
I can complete a simple symmetric figure with respect to a specific line of symmetry,		
I can identify acute and obtuse angles and compare and order angles up to two right angles by size.		
Geometry – position and direction		
I can describe movements between positions as translations of a given unit to the left/right and up/down.		
I can describe positions on a 2D grid as coordinates in the first quadrant.		
I can plot specified points and draw sides to complete a given polygon.		
Statistics		
I can complete, read and interpret information represented in bar charts		
I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.		
I can solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		

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

A Year 5 Mathematician

Fluency Focus: Numbers up to 1 million (whole numbers and decimal with up to 3 decimal places) through wide variety of models and representations

TARGETS	SEEN	SECURE
Number, place value, approximation and estimation/rounding		
I can count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.		
I can read, write, order and compare numbers to at least 1,000,000.		
I can determine the value of each digit in numbers up to 1,000,000.		
I can read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.		
I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 and 100000.		
I can interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.		
I can solve number problems and practical problems within the context of the fluency focus.		
Calculations		
I can add and subtract numbers mentally within the fluency focus		
I can add and subtract whole numbers with more than 4 digits, including using formal written methods.		
I can use rounding to check answers to calculations and determine, in the context of a problem, levels 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 multiples and factors, including finding all factor pairs or a number and common factor pairs of two numbers.		
I use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.		
I can establish whether a number up to 100 is prime and recall prime numbers up to 19.		
I recognise and use square numbers and cube numbers, and the notation for squared and cubed.		

I can multiply and divide numbers mentally drawing on known facts.		
I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.		
I can multiply numbers up to 4 digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.		
I can divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.		
I can solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes.		
I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.		
I can solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates.		
Fractions, decimals and percentages		
I can recognise mixed numbers and improper fractions and convert from one form to the other.		
I can write mathematical statements >1 as a mixed number.		
I can identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.		
I can compare and order fractions whose denominators are multiples of the same number.		
I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.		
I can multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.		
I can read and write decimal numbers as fractions.		
I recognise and can use thousandths and relate them to tenths, hundredths and decimal equivalents.		
I can round decimals with 2 decimal places to the nearest whole number and 1 decimal place.		
I can read, write, order and compare numbers with up to 3 decimal places.		
I can solve problems involving numbers up to 3 decimal places.		
I recognise the percent symbol and understand that percent relates to ‘number parts per hundred’.		
I can write percentages as a fraction with denominator hundred, and as a decimal.		

I can solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator or a multiple of 10 or 25.		
I have begun to write equations to express situations.		
Measurement		
I can solve problems involving converting between units of time.		
I can convert between different units of metric measure.		
I understand and use approximate equivalences between metric units and common imperial units, such as inches, pounds and pints.		
I can measure and calculate the perimeter of composite rectilinear shapes in cm and m.		
I can calculate and compare the area of rectangles (incl squares), and including using standard units (cm^2 and cm^3) to estimate the area of irregular shapes.		
I can estimate volume and capacity.		
I can use all four operations to solve problems involving money using decimal notation, including scaling.		
I can calculate the duration of an event including time durations that bridge the hour and use timetables.		
Geometry – properties of shapes		
I can use the properties of rectangles to deduce related facts and find missing lengths and angles.		
I can distinguish between regular and irregular polygons based on reasoning about equal sides and angles.		
I can identify 3D shapes, including cubes and other cuboids, from 2D representations.		
I know angles are measured in degrees.		
I can estimate and compare acute, obtuse and reflex angles.		
I can identify angles at a point and one whole turn.		
I can identify angles at a point on a straight line and ½ a turn.		
I can identify other multiples of 90º.		
I can draw given angles and measure them in degrees.		
I can use and apply the term ‘diagonal’		
Geometry – position and direction		
I can identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.		

Statistics		
I can complete, read and interpret information in tables, including timetables.		
I can solve comparison, sum and difference problems using information presented in a line graph.		

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

A Year 6 Mathematician

Fluency Focus: Numbers up to 10 million (whole numbers, negative numbers and decimals with up to 3 decimal places) through a wide variety of models and representations

TARGETS	SEEN	SECURE
Number, place value, approximation and estimation/rounding		
I can read, write, order and compare numbers up to 10,000,000.		
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 within the context of the fluency focus.		
I can recognise, describe and use number patterns and relationships to make generalisations about number sequences within the whole number system.		
Calculations		
I can use estimation to check answers to calculations and determine, in the context of a problem and fluency focus, an appropriate degree of accuracy.		
I can solve addition and subtraction multi-step problems in contexts and within the fluency focus, 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.		
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 can 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 generate and describe equivalent expressions (a+b = b+a)		
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 find possibilities of combinations of two variables.		
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, i.e. 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.		
I can recognise the difference between discrete and continuous data		
I can critically interpret information and ask further questions from my conclusions		