Year 5 Mathematics Progress and Target Record Sheet Name: _____

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Counting	☐☐☐ I can count from 0 in multiples of 4, 8, 50 and 100; I can say 10 or 100 more or less than a number I am given	☐☐☐ I can count in multiples of 6, 7, 9, 25 and 1000 ☐☐☐ I can say 1000 more or less than a given number ☐☐☐ I can count backwards through zero (to include negative numbers)	☐☐☐ I can count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 ☐☐☐ I understand negative numbers (in context); I can count forwards and backwards with positive and negative whole numbers (including through zero)	☐☐☐ I can use negative numbers in context, and calculate intervals across zero (e.g. what is 15 more than -9?)
Place Value	☐☐☐ I can compare and order numbers up to 1000	☐☐☐ I can order and compare numbers beyond 1000 ☐☐☐ I can round any number to the nearest 10, 100 or 1000	☐☐☐ I can read, write, order and compare numbers up to 1,000,000 and I know the value of each digit ☐☐☐ I can round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000	☐☐☐ I can read, write, order and compare numbers up to 10,000,000 and I know the value of each digit ☐☐☐ I can round any whole number to a required degree of accuracy
Recording numbers	☐☐☐ I can read and write numbers up to 1000 in numerals (figures) and in words	☐☐☐ I can read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	☐☐☐ I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals ☐☐☐ I recognise and can use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	
Mental +/-	☐☐☐ I can add and subtract numbers in my head, including: HTU+U, HTU+T and HTU+H		☐☐☐ I can add and subtract numbers mentally with larger numbers (eg 12462-2300)	☐☐☐ I can do a wide range of mental calculations, including ones with mixed operations and large numbers
Written +/-	☐☐☐ I can add and subtract numbers with up to three digits, using written column addition and subtraction	☐☐☐ I can add and subtract numbers with up to 4 digits using written column addition and subtraction where appropriate	☐☐☐ I can add and subtract whole numbers with more than 4 digits, including using written column methods	
Number facts	☐☐☐ I know my 3, 4 and 8 multiplication tables and I can use these multiplication and division facts to help me do calculations	☐☐☐ I know my multiplication tables up to 12 × 12	☐☐☐ I can identify multiples and factors of a number; I can find all factor pairs of a number, and common factors of two numbers ☐☐☐ I know and can use the vocabulary of prime numbers, prime factors and non-prime (composite) numbers ☐☐☐ I can work out whether a number up to 100 is prime and I know all the prime numbers up to 19	☐☐☐ I can identify common factors, common multiples and prime numbers
Mental (x/÷)	☐☐☐ I can write down and find answers to multiplication and division sums using the multiplication tables I know (including for TUxU) in my head	☐☐☐ When I do multiplication and division sums in my head, I use place value and my times tables knowledge (including multiplying by 0 and 1 and dividing by 1) to help me find answers; I can multiply three numbers together ☐☐☐ When I do multiplication sums in my head, I use factor pairs and change the order of the numbers to make the sum easier	☐☐☐ I can multiply and divide numbers mentally (using my times tables knowledge) ☐☐☐ I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	☐☐☐ I can perform a wide range of mental calculations, including ones with large numbers (up to 1,000,000) and including ones which involve mixed operations (a combination of addition, subtraction, multiplication and division)
Written (x/÷)	☐☐☐ I am beginning to use written methods for multiplication and division sums	☐☐☐ I can multiply two-digit and three-digit numbers by a one-digit number using formal written method	☐☐☐ I can multiply numbers up to 4 digits by a one- or two-digit number using a written method (including long multiplication for two-digit numbers) ☐☐☐ I can divide numbers up to 4 digits by a one-digit number using the written method of short division; I can interpret remainders appropriately for the context	☐☐☐ I can divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division (or short division); I can interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
Problems	☐☐☐ I can estimate the answer to an addition and subtraction calculation; I can and use inverse operations to check answers ☐☐☐ I can find answers to addition and subtraction problems (including missing number problems) using number facts, place value, and written sums ☐☐☐ I can find answers to multiplication and division problems (including missing number problems and sums like 12 sweets are shared equally between 4 children); I choose the right type of sum to do and can explain why it is the right type of sum	☐☐☐ I can estimate and use inverse operations to check answers to addition and subtraction calculations ☐☐☐ I can solve addition and subtraction two-step problems in different contexts, deciding which operations and methods to use and why ☐☐☐ I can find answers to multiplication and division problems presented in different ways (including correspondence and scaling) and involving harder numbers; I can multiply two digit numbers by one digit by partitioning, multiplying and then adding (so I answer 39x7 by adding the answers to 30x7 and 9x7)	☐☐☐ I can use rounding to check answers to addition and subtraction calculations; I think about the problem to help me choose a sensible level of accuracy for my answer ☐☐☐ I can solve addition and subtraction multi-step problems in a range of contexts; I deciding which operations and methods to use and can say why I have chosen them ☐☐☐ I can solve problems involving multiplication and division (using my knowledge of factors and multiples, squares and cubes) ☐☐☐ I can solve problems involving a combination of addition, subtraction, multiplication and division, including using my understanding of the meaning of the equals sign ☐☐☐ I can solve multiplication and division problems (including scaling by simple fractions) and problems involving simple rates	☐☐☐ I can use my knowledge of the order of operations to carry out calculations involving the four operations ☐☐☐ I can solve addition and subtraction multi-step problems in different contexts, deciding which operations and methods to use and why ☐☐☐ I can solve problems involving addition, subtraction, multiplication and division
Fractions	☐☐☐ I know that tenths come from dividing something into 10 equal parts and by dividing numbers by 10 ☐☐☐ I can compare and order unit fractions (fractions with 1 as the numerator), and fractions with the same denominators ☐☐☐ I can pick out and show, using diagrams, some equivalent fractions	☐☐☐ I know that that hundredths come from dividing something by one hundred and dividing by tenths by ten ☐☐☐ I can identify and show, using diagrams, families of common equivalent fractions; I use factors and multiples to help me identify equivalent fractions	☐☐☐ I know what mixed numbers and improper fractions are; I can convert between mixed numbers and improper fractions and write mathematical statements > 1 as a mixed number ☐☐☐ I can compare and order fractions with denominators that are multiples of the same number ☐☐☐ I can identify, name and write equivalent fractions of a given fraction including tenths and hundredths (and including fractions represented visually)	☐☐☐ I can use common factors to simplify fractions ☐☐☐ I can use common multiples to express fractions in the same denomination ☐☐☐ I can compare and order fractions, including fractions > 1

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Decimals		☐☐☐ I know and can write down decimal equivalents of any number of tenths or hundredths ☐☐☐ I know and can write down decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ ☐☐☐ 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 two decimal places)	☐☐☐ I can read and write decimal numbers as fractions ☐☐☐ I can recognise and use thousandths and explain how they relate to tenths, hundredths and decimal equivalents ☐☐☐ I can round decimals with two decimal places to the nearest whole number and to one decimal place ☐☐☐ I can read, write, order and compare numbers with up to three decimal places	☐☐☐ I can explain the connection between a fraction and division; I can calculate decimal fraction equivalents [for example, 0.375] for a simple fraction
Percentages			☐☐☐ I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred'; I can write percentages as a fraction with denominator 100, and as a decimal	☐☐☐ I can find percentages of numbers and quantities [eg percentages of measures, and such as 15% of 360]; I can solve problems which use percentages for comparison
Calculating with fractions, decimals and percentages	☐☐☐ I can work out and write down fractions of a set of objects (eg $^3/_5$ of the buttons are red) ☐☐☐ I know fractions are numbers: I can put them on a number line; compare fractions and pick our equivalent fractions. I can work out fractions of a number. ☐☐☐ I can add and subtract fractions with the same denominator [e.g. 5/7 + 1/7 = 6/7] ☐☐☐ I can find answers to problems using all my fractions knowledge	☐☐☐ I can find answers to problems involving harder fractions to work out quantities; I can use fractions (including non-unit fractions like $^2/_3$ and $^4/_5$ where the numerator is not "1") to divide quantities where the answer is a whole number ☐☐☐ I can add and subtract fractions with the same denominator ☐☐☐ I can find answers to simple measurement and money problems involving fractions and decimals (up to two decimal places)	☐☐☐ I can add and subtract fractions with the same denominator; and I can add and subtract fractions with denominators that are multiples of the same number (eg $^3/_8$ + $^1/_4$) ☐☐☐ I can multiply proper fractions and mixed numbers by whole numbers, with the help of materials and diagrams ☐☐☐ I can solve problems involving numbers up to three decimal places ☐☐☐ I can solve problems which require knowing percentage and decimal equivalents of $^1/_2$, $^1/_4$, $^1/_5$, $^2/_5$, $^4/_5$ and those fractions with a denominator of a multiple of 10 or 25	☐☐☐ I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions ☐☐☐ I can divide proper fractions by whole numbers ☐☐☐ I can solve problems which require answers to be rounded to specified degrees of accuracy ☐☐☐ I know and can use equivalences between simple fractions, decimals and percentages, in different contexts.
Measures	☐☐☐ I can measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volumes/capacities (l/ml) ☐☐☐ I can measure the perimeter of simple 2-D shapes ☐☐☐ I know the number of seconds in a minute and the number of days in each month, year and leap year	☐☐☐ I can convert between different units of measurement (e.g. km to m, hour to minute) ☐☐☐ I can estimate, compare and calculate using different measures (including money in pounds and pence) ☐☐☐ I can measure and calculate the perimeter of rectangles and squares in centimetres and metres ☐☐☐ I can find the area of rectangles and squares by counting squares ☐☐☐ I can read, write and convert time between analogue and digital 12- and 24-hour clocks ☐☐☐ I can find answers to problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	☐☐☐ I can convert between different units of metric measures ☐☐☐ I understand and can use approximate equivalences between metric units and common imperial units such as inches, pounds and pints ☐☐☐ I can make sensible estimates of volume and capacity ☐☐☐ I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres ☐☐☐ I can calculate and compare the area of rectangles (including squares), using standard units, square centimetres (cm^2) and square metres (m^2); I can estimate the area of irregular shapes ☐☐☐ I can solve problems involving converting between units of time ☐☐☐ I can use all four operations to solve problems involving measures (eg. length, mass, volume, money, time) using decimal notation and including scaling questions	☐☐☐ 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 (including using decimal notation to up to three decimal places) ☐☐☐ I can calculate the area of parallelograms and triangles
Shape	☐☐☐ I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines ☐☐☐ I can draw simple 2-D shapes ☐☐☐ I can name 3-D shapes in different orientations and describe them	☐☐☐ I can compare and group (classify) shapes (including quadrilaterals and triangles) based on properties and sizes ☐☐☐ I can find lines of symmetry in 2-D shapes even when they are presented in different orientations ☐☐☐ I can complete a simple symmetrical shape given a line of symmetry.	☐☐☐ I can use the properties of rectangles to work out related facts and find missing lengths and angles ☐☐☐ I can tell which shapes are regular and irregular polygons based on thinking about equal sides and angles. ☐☐☐ I can identify (name) 3-D shapes (including cubes and other cuboids) from 2-D diagrams of them	☐☐☐ I can compare and classify geometric shapes based on their properties and sizes ☐☐☐ I can name, describe and build simple 3-D shapes; I can making nets of 3-D shapes
Angles	☐☐☐ I can identify right angles; I know that two right angles make a half-turn, three make three quarters of a turn and four a complete turn ☐☐☐ I can tell whether angles are greater or less than a right angle	☐☐☐ I can identify acute and obtuse angles ☐☐☐ I can compare and order angles (up to 180°) by size	☐☐☐ I know angles are measured in degrees ☐☐☐ I can estimate and compare acute, obtuse and reflex angles ☐☐☐ I can draw angles, and measure them in degrees (°) ☐☐☐ I can work out angles at a point using my knowledge that angles on one whole turn add up to 360° and angles on a straight line ($\frac{1}{2}$ a turn) add up to 180° ☐☐☐ I can identify angles which are multiples of 90°	☐☐☐ I recognise angles where they meet at a point, are on a straight line, or are vertically opposite; I can find missing angles
Position and direction		☐☐☐ I can describe positions on a 2-D grid (in the first quadrant) using coordinates ☐☐☐ I can describe movement between positions as translations to the left/right and up/down and by how much ☐☐☐ I can plot specified points on a grid and draw sides to complete a given polygon	☐☐☐ I can identify, describe and draw the position of a shape following a reflection or translation, using the appropriate language ☐☐☐ I know that the shape has not changed by reflection or translation	☐☐☐ I can describe positions on the full coordinate grid (all four quadrants) ☐☐☐ I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics	☐☐☐ I can read and present data using bar charts, pictograms and tables ☐☐☐ I can find answers to one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in bar charts, pictograms and tables	☐☐☐ I can read and present data (discrete and continuous) using appropriate graphs, (including bar charts and time graphs) ☐☐☐ I can use information presented in bar charts, pictograms, tables and other graphs to answer questions where I need to add, subtract or compare	☐☐☐ 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	☐☐☐ I can interpret and construct pie charts and line graphs ☐☐☐ I can use pie charts and line graphs to solve problems