Year 6 Mathematics   Progress and Target Record Sheet

Name: _____

	4	5	Year 6	7
Counting	☐☐☐ 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	☐☐☐ I can use negative numbers in context, and calculate intervals across zero (e.g. what is 15 more than -9?)	
Place Value	☐☐☐ I know the place value of each digit in a four-digit number ☐☐☐ 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 number	☐☐☐ 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})		
+/-	☐☐☐ I can add and subtract numbers with up to 4 digits using written column addition and subtraction where appropriate	☐☐☐ I can add and subtract numbers mentally with larger numbers ☐☐☐ I can add and subtract whole numbers with more than 4 digits, including using written column methods	☐☐☐ I can do a wide range of mental calculations, including ones with mixed operations and large numbers	
Number facts	☐☐☐ I know my multiplication tables up to 12 × 12	☐☐☐ I can identify multiples and factors; 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/÷	☐☐☐ When I do multiplication and division sums in my head, I use place value and my times tables knowledge 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 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; I can 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 two-digit number using the formal written method of short division where appropriate; I interpret remainders sensibly according to context	
Problems	☐☐☐ I can estimate and use inverse operations to check answers to a calculation ☐☐☐ 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 multiplication and division problems (using my knowledge of factors and multiples, squares and cubes) ☐☐☐ I can solve problems involving a combination of addition, subtraction, multiplication and division; I can use my understanding of the meaning of the equals sign (eg 13=27=?-40)	☐☐☐ 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 ☐☐☐ I can make estimates to check answers to calculations; I think about the context of a problem, to decide an appropriate degree of accuracy	
Recognising and comparing fractions	☐☐☐ I can count up and down in hundredths; ☐☐☐ 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	
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 $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ ☐☐☐ 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 ☐☐☐ I can identify the value of each digit in numbers given to three decimal places ☐☐☐ I can multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places ☐☐☐ I can multiply a one-digit number with up to two decimal places by whole numbers ☐☐☐ I can use written division methods in cases where the answer has up to two decimal places	

	4	5	Year 6	7
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, such as 15% of 360]; I can solve problems which use percentages for comparison	
Calculating with fractions, decimals and percentages	☐☐☐ 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 ☐☐☐ 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 $\frac{1}{2}$, $\frac{1}{4}$, 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 multiply simple pairs of proper fractions; I can write the answer in its simplest form ☐☐☐ 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.	
Ratio And Proportion			☐☐☐ I can solve problems involving the relative sizes of two quantities where missing values have to be found by using multiplication and division facts ☐☐☐ I can solve problems involving similar shapes where the scale factor is known or can be worked out ☐☐☐ I can solve problems involving unequal sharing and grouping using my knowledge of fractions and multiples.	
Algebra			☐☐☐ I can use simple formulae ☐☐☐ I can make up and describe linear number sequences ☐☐☐ I can express missing number problems using algebra ☐☐☐ I can find pairs of numbers that satisfy an equation with two unknowns ☐☐☐ I can list all the possible combinations of two variables.	
Measures	☐☐☐ 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 convert between different units of measurement (e.g. Hours to minutes) ☐☐☐ 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 rectilinear shapes in centimetres and metres ☐☐☐ I can calculate and compare the area of rectangles (including squares), using standard units, square centimetres (cm²) and square metres (m²); I can estimate the area of irregular shapes ☐☐☐ 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 solve problems which involve calculating with and converting units of measurement (including using decimal notation up to three decimal places) ☐☐☐ 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 convert between miles and kilometres ☐☐☐ I know that shapes with the same areas can have different perimeters and vice versa ☐☐☐ I realise when it is possible to use formulae for area and volume of shapes ☐☐☐ I can calculate the area of parallelograms and triangles ☐☐☐ I can calculate, estimate and compare volume of cubes and cuboids using standard units (including cubic centimetres (cm3) and cubic metres (m3), and extending to other units)	
Shape	☐☐☐ 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 3-D shapes (including cubes and other cuboids) from 2-D diagrams of them	☐☐☐ I can name and draw parts of circles, including radius, diameter and circumference; I know that the diameter is twice the radius ☐☐☐ I can draw 2-D shapes using given dimensions and angles ☐☐☐ 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 ☐☐☐ I can find unknown angles in any triangles, quadrilaterals, and regular polygons	
Angles	☐☐☐ I can identify acute and obtuse angles ☐☐☐ I can compare and order angles (up to 180°) by size	☐☐☐ 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 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 plot points to complete a given polygon ☐☐☐ I can describe movement between positions as translations to the left/right and up/down and by how much	☐☐☐ 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 (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 calculate and show my understanding of the mean as an average ☐☐☐ I can use pie charts and line graphs to solve problems	