Name: _____

Year 3 Maths Assessment Record

	Objective				Notes
Number & place value	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number				
	recognise the place value of each digit in a three-digit number (hundreds, tens, ones)				
	compare and order numbers up to 1000				
	identify, represent and estimate numbers using different representations				
	read and write numbers up to 1000 in numerals and in words				
	solve number problems and practical problems involving these ideas				
Addition & Subtraction	add and subtract numbers mentally, including a three-digit number and ones				
	add and subtract numbers mentally, including a three-digit number and tens				
	add and subtract numbers mentally, including a three-digit number and hundreds				
	add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction				
	estimate the answer to a calculation and use inverse operations to check answers				
	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction				
Multiplication & Division	recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables				
	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods				
	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects				
Fractions	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10				
	recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators				
	recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators				
	recognise and show, using diagrams, equivalent fractions with small denominators				
	add and subtract fractions with the same denominator within one whole				
	compare and order unit fractions, and fractions with the same denominators				
	solve problems that involve all of the above				
Measurement	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)				
	measure the perimeter of simple 2-D shapes				
	add and subtract amounts of money to give change, using both £ and p in practical contexts				
	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks				
	estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight				
	know the number of seconds in a minute and the number of days in each month, year and leap year				
	compare durations of events				
Properties of shapes	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them				
	recognise angles as a property of shape or a description of a turn				
	identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle				
	identify horizontal and vertical lines and pairs of perpendicular and parallel lines				
Statistics	interpret and present data using bar charts, pictograms and tables				
	solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables				

Name: _____

Year 4 Maths Assessment Record

	Objective				Notes
Number & place value	count in multiples of 6, 7, 9, 25 and 1000				
	find 1000 more or less than a given number				
	count backwards through zero to include negative numbers				
	recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)				
	order and compare numbers beyond 1000				
	identify, represent and estimate numbers using different representations				
	round any number to the nearest 10, 100 or 1000				
	solve number and practical problems that involve all of the above and with increasingly large positive numbers				
	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				
Addition & Subtraction	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate				
	estimate and use inverse operations to check answers to a calculation				
	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why				
Multiplication & Division	recall multiplication and division facts for multiplication tables up to 12 × 12				
	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				
	recognise and use factor pairs and commutativity in mental calculations				
	multiply two-digit and three-digit numbers by a one-digit number using formal written layout				
	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects				
Fractions (including decimals)	recognise and show, using diagrams, families of common equivalent fractions				
	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten				
	solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number				
	add and subtract fractions with the same denominator				
	recognise and write decimal equivalents of any number of tenths or hundredths				
	recognise and write decimal equivalents to 1/4, 1/2. 3/4				
	find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths				
	round decimals with one decimal place to the nearest whole number				
	compare numbers with the same number of decimal places up to two decimal places				
	solve simple measure and money problems involving fractions and decimals to two decimal places				
Measurement	Convert between different units of measure [for example, kilometre to metre; hour to minute]				
	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres				
	find the area of rectilinear shapes by counting squares				
	estimate, compare and calculate different measures, including money in pounds and pence				
	read, write and convert time between analogue and digital 12- and 24-hour clocks				
	solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days				
Properties of shapes	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes				
	identify acute and obtuse angles and compare and order angles up to two right angles by size				
	identify lines of symmetry in 2-D shapes presented in different orientations				
	complete a simple symmetric figure with respect to a specific line of symmetry				
Position & direction	describe positions on a 2-D grid as coordinates in the first quadrant				
	describe movements between positions as translations of a given unit to the left/right and up/down				
	plot specified points and draw sides to complete a given polygon				
Statistics	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs				
	solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs				

Name: _____

Year 5 Maths Assessment Record

	Objective				Notes
Number & place value	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit				
	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000				
	interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero				
	round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000				
	solve number problems and practical problems that involve all of the above				
	read Roman numerals to 1000 (M) and recognise years written in Roman numerals				
Addition & Subtraction	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)				
	add and subtract numbers mentally with increasingly large numbers				
	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy				
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why				
Multiplication & Division	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers				
	know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers				
	establish whether a number up to 100 is prime and recall prime numbers up to 19				
	multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers				
	multiply and divide numbers mentally drawing upon known facts				
	divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context				
	multiply and divide whole numbers and those involving decimals by 10, 100 and 1000				
	recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})				
	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes				
	solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign				
	solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.				
Fractions (including decimals)	compare and order fractions whose denominators are all multiples of the same number				
	identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths				
	recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number				
	add and subtract fractions with the same denominator and denominators that are multiples of the same number				
	multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams				
	read and write decimal numbers as fractions				
	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents				
	round decimals with two decimal places to the nearest whole number and to one decimal place				
	read, write, order and compare numbers with up to three decimal places				
	solve problems involving number up to three decimal places				
	recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal				
	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				
Measurement	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)				
	understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints				
	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres				
	calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes				
	estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity				
	solve problems involving converting between units of time				
	use all four operations to solve problems involving measure using decimal notation, including scaling.				
Properties of shapes	identify 3-D shapes, including cubes and other cuboids, from 2-D representations				
	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles				
	draw given angles, and measure them in degrees (°)				
	identify angles at a point and one whole turn (total 360°)				
	identify angles at a point on a straight line and 1/2 a turn (total 180°)				
	identify other multiples of 90°				
	use the properties of rectangles to deduce related facts and find missing lengths and angles				
	distinguish between regular and irregular polygons based on reasoning about equal sides and angles				
Pos & Dir	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	solve comparison, sum and difference problems using information presented in a line graph				
	complete, read and interpret information in tables, including timetables				

Name: _____

Year 6 Maths Assessment Record

Objective				Notes
Number & place value	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit				
	round any whole number to a required degree of accuracy				
	use negative numbers in context, and calculate intervals across zero				
	solve number and practical problems that involve all of the above				
Addition, Subtraction, Multiplication and Division	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				
	perform mental calculations, including with mixed operations and large numbers				
	identify common factors, common multiples and prime numbers				
	use their knowledge of the order of operations to carry out calculations involving the four operations				
	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why				
	solve problems involving addition, subtraction, multiplication and division				
	use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy				
Fractions (including decimals and percentages)	use common factors to simplify fractions; use common multiples to express fractions in the same denomination				
	compare and order fractions, including fractions > 1				
	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions				
	multiply simple pairs of proper fractions, writing the answer in its simplest form				
	divide proper fractions by whole numbers				
	associate a fraction with division and calculate decimal fraction equivalents for a simple fraction				
	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				
	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				
Ratio and Proportion	solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts				
	solve problems involving the calculation of percentages and the use of percentages for comparison				
	solve problems involving similar shapes where the scale factor is known or can be found				
	solve problems involving unequal sharing and grouping using knowledge of fractions and multiples				
Algebra	use simple formulae				
	generate and describe linear number sequences				
	express missing number problems algebraically				
	find pairs of numbers that satisfy an equation with two unknowns				
	enumerate possibilities of combinations of two variables.				
Measurement	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate				
	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				
	convert between miles and kilometres				
	recognise that shapes with the same areas can have different perimeters and vice versa				
	recognise when it is possible to use formulae for area and volume of shapes				
	calculate the area of parallelograms and triangles				
	calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units				
Properties of Shapes	draw 2-D shapes using given dimensions and angles				
	recognise, describe and build simple 3-D shapes, including making nets				
	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons				
	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius				
	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles				
Pos & Dir	describe positions on the full coordinate grid (all four quadrants)				
	draw and translate simple shapes on the coordinate plane, and reflect them in the axes				
Statistics	interpret and construct pie charts and line graphs and use these to solve problems				
	calculate and interpret the mean as an average				