MATHEMATICS Key Stage 2 Year 5

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y5	Number Place Value			
KS 2 Y5	Number Place Value	[KEY] Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.	*I can read, write, order and compare numbers to at least 1 000 000 and know the value of each digit.*	*I can read, write, order and compare numbers to at least 1 000 000 independently and know the value of each digit.*
KS 2 Y5	Number Place Value	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	*I count forwards or backwards in steps 10, 100, 1000, 10000 or 100000 for any given number up to 1000000.*	*I confidently and quickly count forwards or backwards in steps 10, 100, 1000, 10000 or 100000 for any given number up to 1000000.*
KS 2 Y5	Number Place Value	[KEY] Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.	*I can use negative numbers in my work and can count backwards and forwards to and from negative numbers.*	*I can use negative numbers in my work independently and can count backwards and forwards to and from negative numbers.*
KS 2 Y5	Number Place Value	Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	*I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.*	*I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 and use this to predict and check the answers to calculations*
KS 2 Y5	Number Place Value	Solve number problems and practical problems that involve numbers up to 1000000, negative numbers, rounding or jumping in steps.	*I can solve number problems and practical problems that involve numbers up to 1000000, negative numbers, rounding or jumping in steps.*	*I can solve number problems and practical problems in a range of contexts, that involve numbers up to 1000000, negative numbers, rounding or jumping in steps.*
KS 2 Y5	Number Place Value	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	*I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals.*	*I can confidently read Roman numerals to 1000 (M) and recognise and explain years written in Roman numerals.*
KS 2 Y5	Addition Subtraction			
KS 2 Y5	Addition Subtraction	[KEY] Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	*I can add and subtract whole numbers with more than 4 digits using written methods such as column addition and subtraction.*	*I can add and subtract whole numbers with more than 4 digits using written methods such as column addition and subtraction in a range of different contexts*
KS 2 Y5	Addition Subtraction	[KEY] Add and subtract numbers mentally with increasingly large numbers.	*I can add and subtract larger numbers in my head.*	*I can rapidly add and subtract larger numbers in my head.*
KS 2 Y5	Addition Subtraction	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	*I round numbers to check the accuracy of my solution.*	*I accurately round numbers to check the accuracy of my solution.*
KS 2 Y5	Addition	Solve addition and subtraction multi-step problems in contexts, deciding	*I can solve addition and subtraction multi-step*	*I can independently solve more complex addition and*

	Subtraction	which operations and methods to use and why.	*problems, deciding which operations and methods to use and why.*	*subtraction multi-step problems, deciding which operations and methods to use and why.*
KS 2 Y5	Multiplication Division			
KS 2 Y5	Multiplication Division	[KEY] Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	*I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.*	*I can solve problems mentally by identifying multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.*
KS 2 Y5	Multiplication Division	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	*I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.*	*I confidently use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers when reasoning about problems and investigations.*
KS 2 Y5	Multiplication Division	Establish whether a number up to 100 is prime and recall prime numbers up to 19.	*I know whether a number up to 100 is prime and recall prime numbers up to 19.*	*I know whether a number up to 100 is prime and recall prime numbers up to 19, using this to help with maths investigations.*
KS 2 Y5	Multiplication Division	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.	*I can multiply 4 digit numbers by a one- or two-digit number using a written method, including long multiplication for two-digit numbers.*	*I can confidently multiply 4 digit numbers by a one- or two-digit number using a written method, including long multiplication for two-digit numbers to solve a range of problems.*
KS 2 Y5	Multiplication Division	Multiply and divide numbers mentally drawing upon known facts.	*I multiply and divide numbers mentally drawing upon my times table knowledge and other number facts.*	*I multiply and divide numbers mentally drawing upon my times table knowledge and other number facts to solve practical problems.*
KS 2 Y5	Multiplication Division	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.	*I can divide 4 digit numbers by a one-digit number using the written method of short division and find the remainder.*	*I can divide 4 digit numbers by a one-digit number using the written method of short division and find the remainder; writing it as a fraction or decimal.*
KS 2 Y5	Multiplication Division	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	*I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.*	*I can quickly and accurately mentally multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.*
KS 2 Y5	Multiplication Division	Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).	*I know what square numbers and cube numbers are, including the notation for squared (2) and cubed (3).*	*I square numbers and cube numbers are, including the notation for squared (2) and cubed (3) to solve problems.*
KS 2 Y5	Multiplication Division	[KEY] Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	*I can solve multiplication and division problems using my knowledge of factors and multiples, squares and cubes.*	*I can use efficient methods of multiplication and division to solve problems including using my knowledge of factors and multiples, squares and cubes.*
KS 2 Y5	Multiplication Division	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	*I can solve more difficult problems involving addition, subtraction, multiplication and division and a combination of these.*	*I can use efficient methods of calculation to solve more difficult problems involving addition, subtraction, multiplication and division and a combination of these.*
KS 2 Y5	Multiplication	[KEY] Solve problems involving multiplication and division, including	*I can solve problems including scaling by simple*	*I can solve more complex problems including scaling*

	Division	scaling by simple fractions and problems involving simple rates.	*fractions and problems involving simple rates.*	*by fractions and problems involving simple rates.*
KS 2 Y5	**Fractions**			
KS 2 Y5	Fractions	[KEY] Compare and order fractions whose denominators are all multiples of the same number.	*I can compare and order fractions whose denominators are all multiples of the same number.*	*I can compare and order fractions whose denominators are all multiples of the same number, and can use this in different subject areas.*
KS 2 Y5	Fractions	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	*I can name and write equivalent fractions of a given fraction, and show these in a drawing (including tenths and hundredths).*	*I can name and write a range of equivalent fractions of a given fraction independently, and show these in a drawing (including tenths and hundredths).*
KS 2 Y5	Fractions	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5].	*I know what mixed numbers and improper fractions are and I can convert from one to the other [for example, 2/5 + 4/5 = 6/5 = 1 1/5].*	*I solve real-life problems involving mixed numbers and improper fractions and I can convert from one to the other [for example, 2/5 + 4/5 = 6/5 = 1 1/5].*
KS 2 Y5	Fractions	Add and subtract fractions with the same denominator and denominators that 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.*	*In different subjects, I can independently add and subtract fractions with the same denominator and denominators that are multiples of the same number.*
KS 2 Y5	Fractions	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	*I use diagrams and some fraction tools to multiply proper fractions (7/10) and mixed numbers (1 7/10) by whole numbers.*	*I can multiply proper fractions (7/10) and mixed numbers (1 7/10) by whole numbers.*
KS 2 Y5	Fractions	[KEY] Read and write decimal numbers as fractions [for example, 0.71 = 71/100].	*I can read and write decimal numbers as fractions [for example, 0.71 = 71/100].*	*I can read and write decimal numbers as fractions [for example, 0.71 = 71/100] and simplify them where possible.*
KS 2 Y5	Fractions	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	*I know what thousandths are and how to use them with tenths, hundredths and decimals.*	*I use thousandths, tenths, hundredths and decimals across different subject areas.*
KS 2 Y5	Fractions	Round decimals with two decimal places to the nearest whole number and to one decimal place.	*I can round decimals with two decimal places to the nearest whole number and to one decimal place.*	*I can confidently round decimals with two decimal places to the nearest whole number and to one decimal place and use this in different subjects to present information.*
KS 2 Y5	Fractions	[KEY] Read, write, order and compare numbers with up to three decimal places.	*I can read, write, order and compare numbers with up to three decimal places.*	*I can read, write, order and compare numbers with up to three decimal places independently.*
KS 2 Y5	Fractions	Solve problems involving number up to three decimal places.	*I can solve problems involving numbers with up to three decimal places.*	*I can solve real-life problems involving numbers with up to three decimal places using efficient methods of calculation.*
KS 2 Y5	Fractions	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.	*I know what the per cent symbol is (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with*	*I can confidently relate percentages with their fraction and decimal equivalences.*

			denominator 100, and as a decimal.	
KS 2 Y5	Fractions	[KEY] 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 work on 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 work on real-life and practical problems which require knowing percentage and decimal equivalents of those fractions with a denominator of a multiple of 10 or 25.*
KS 2 Y5	Measurement			
KS 2 Y5	Measurement	[KEY] Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).	*I can convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).*	*I can convert between a wider span of metric measure (for example, kilometre and centimetre; metre and millimetre; gram and kilogram; litre and millilitre) and use this to solve real-life problems.*
KS 2 Y5	Measurement	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	*I can change metric units to become imperial units such as inches, pounds and pints.*	*Solve problems in a range of different subjects involving equivalences between metric units and common imperial units such as inches, pounds and pints.*
KS 2 Y5	Measurement	[KEY] Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.	*I can calculate the perimeter of multi-shape shapes in centimetres and metres.*	*I can calculate the perimeter of multi-shape shapes in centimetres and metres and use this to solve practical problems.*
KS 2 Y5	Measurement	[KEY] 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.	*I can calculate the area of rectangles in square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes.*	*I can calculate the area of compound rectangles in square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes.*
KS 2 Y5	Measurement	Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water].	*I can estimate volume [for example, using 1 cm3 blocks to build cuboids] and capacity [for example, using water].*	*I can accurately estimate volume [for example in m3] and capacity [for example in quantities of litres]*
KS 2 Y5	Measurement	Solve problems involving converting between units of time.	*I can convert between the units of time.*	*I can convert between different the units of time into one common measurement to solve problems.*
KS 2 Y5	Measurement	Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	*I can solve more difficult problems which involve units of measurement, decimal numbers and scales.*	*I can combine several mathematical operations to solve more difficult problems which involve units of measurement, decimal numbers and scales.*
KS 2 Y5	Shape			
KS 2 Y5	Shape	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.	*I can Identify 3-D shapes, including cubes and other cuboids, from 2-D drawings.*	*I can Identify and create 3-D shapes, including cubes and other cuboids, from 2-D drawings and nets.*
KS 2 Y5	Shape	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.	*I know that angles are measured in degrees and I can estimate and compare acute, obtuse and reflex angles.*	*I can measure, classify, order and compare acute, obtuse and reflex angles.*
KS 2 Y5	Shape	[KEY] Draw given angles, and measure them in degrees (°).	*I can draw a given angle (such as 47°), and then*	*I can accurately draw a given angle (such as 47°),*

				measure them in degrees (°).	and then measure them in degrees (°) and use this to construct shapes.
KS 2 Y5	Shape		Identify angles at a point and one whole turn (total 360°).	*I know one whole turn - or a set of angles all around a point - measure a total of 360°.*	*I can solve more difficult problems by finding angles around a point and in one whole turn.*
KS 2 Y5	Shape		Identify angles at a point on a straight line and a turn (total 180°).	*I know that a straight line - or angles that add up to a straight line - measure 180°.*	*I know that a straight line - or angles that add up to a straight line - measure 180° and use this to solve real-life problems.*
KS 2 Y5	Shape		Identify other multiples of 90°.	*I can identify multiples of 90° (right angles).*	*I can identify multiples of 90° (right angles) and use this to solve problems.*
KS 2 Y5	Shape		Use the properties of rectangles to deduce related facts and find missing lengths and angles. .	*I can find the missing lengths and angles of a rectangle.*	*I can find the missing lengths and angles of compound rectangles.*
KS 2 Y5	Shape		[KEY] Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	*I know regular shapes have equal sides and angles and irregular shapes do not have equal sides and angles.*	*I can identify and compare regular shapes and irregular shapes independently.*
KS 2 Y5	Position				
KS 2 Y5	Position		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.	*I can reflect or translate a shape on a grid.*	*I can reflect or translate complex shapes on a grid.*
KS 2 Y5	Statistics				
KS 2 Y5	Statistics		Solve comparison, sum and difference problems using information presented in a line graph.	*I can solve problems using a line graph to find the answers.*	*I can solve problems using a line graph to find the answers across different subjects.*
KS 2 Y5	Statistics		[KEY] Complete, read and interpret information in tables, including timetables.	*I can find the information I need from a timetable or large table of data.*	*I can find the information I need from a timetable or large table of data to solve problems.*