MATHEMATICS Key Stage 2 Year 6

Key Stage	Strand	Objective	Child Speak Target	Greater Depth Target
KS 2 Y6	Number Place Value			
KS 2 Y6	Number Place Value	[EXS] [KEY] Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.	*I can work with numbers up to 10 000 000 and know what each digit represents.*	*I can work with numbers up to 10 000 000 confidently and know what each digit represents.*
KS 2 Y6	Number Place Value	Round any whole number to a required degree of accuracy.	*I can round a whole number as requested - for example to the nearest 10 or 1000 or 100000.*	*I can round a whole number as requested - for example to the nearest 10 or 1000 or 100000 using different measures and contexts.*
KS 2 Y6	Number Place Value	Use negative numbers in context, and calculate intervals across zero.	*I understand and use negative numbers in my work, for example - working out how much is between -7 and +8.*	*I understand and use negative numbers in my work, for example - working out how much is between -17 and +8 to solve real-life problems.*
KS 2 Y6	Number Place Value	[EXS] [KEY] Solve number and practical problems that involve large numbers, rounding and negative numbers.	*I can solve number and practical problems that involve large numbers, rounding and negative numbers.*	*I can solve more complex number and practical problems that involve large numbers, rounding and negative numbers independently.*
KS 2 Y6	Multiplication Division			
KS 2 Y6	Multiplication Division	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	*I can multiply 4 digit numbers by a two-digit number (for example 4307 x 34) using the written method of long multiplication.*	*I can multiply 4 digit numbers by a two-digit number efficiently (for example 4307 x 34) using the written method of long multiplication across a range of contexts.*
KS 2 Y6	Multiplication Division	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.	*I can divide 4 digit numbers by a two-digit number using the written method of long division - and tell you the remainder.*	*I can divide 4 digit numbers by a two-digit number efficiently using the written method of long division - and tell you the remainder.*
KS 2 Y6	Multiplication Division	[EXS] [KEY] 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.	*I can choose to divide 4 digit numbers by a two-digit number using the written method of short division if this is possible.*	*I can efficiently divide 4 digit numbers by a two-digit number using the written method of short division if this is possible.*
KS 2 Y6	Multiplication Division	[EXS] [KEY] Perform mental calculations, including with mixed operations and large numbers.	*I can multiply, divide, add and subtract large numbers in my head.*	*I can rapidly multiply, divide, add and subtract large numbers in my head.*
KS 2 Y6	Multiplication Division	Identify common factors, common multiples and prime numbers.	*I identify common factors, common multiples and prime numbers.*	*I identify all of the common factors, common multiples and prime numbers.*
KS 2 Y6	Multiplication	[EXS] [KEY] Use their knowledge of the order of operations to carry out calculations involving the four operations.	*I know that addition, subtraction, multiplication and division should be carried out in a specific order when*	*I know why addition, subtraction, multiplication and division should be carried out in a specific order when*

	Division		*looking at problems.*	*looking at problems in different contexts.*
KS 2 Y6	Multiplication Division	[EXS] [KEY] Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	*I can solve addition and subtraction multi-step problems, deciding where to add or subtract.*	*I can solve addition and subtraction multi-step problems across different subjects or themes, choosing the most efficient methods.*
KS 2 Y6	Multiplication Division	[EXS] [KEY] Solve problems involving addition, subtraction, multiplication and division.	*I can solve problems involving addition, subtraction, multiplication and division.*	*I can solve problems across a range of themes and subjects involving addition, subtraction, multiplication and division.*
KS 2 Y6	Multiplication Division	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	*I always estimate my answer before I begin calculating - this helps me to check at the end to make sure I am correct.*	*I accurately estimate my answer before I begin calculating - this helps me to check at the end to make sure I am correct.*
KS 2 Y6	Fractions			
KS 2 Y6	Fractions	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	*I can use common factors to simplify fractions and use common multiples to express fractions in the same denomination.*	*I can use common factors to accurately simplify fractions and use common multiples to express fractions in the same denomination when solving problems.*
KS 2 Y6	Fractions	Compare and order fractions, including fractions greater than 1. .	*I can compare and order fractions, including fractions greater than 1.*	*I can compare and order fractions, including fractions greater than 1 in a mixture of contexts and measurements.*
KS 2 Y6	Fractions	[EXS] [KEY] Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	*I add and subtract fractions with different denominators and mixed numbers.*	*I add and subtract fractions with different denominators and mixed numbers to solve real-life problems.*
KS 2 Y6	Fractions	[EXS] [KEY] Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8].	*I can multiply fractions such as 1/4 × 1/2 = 1/8.*	*I can multiply fractions such as 1/6 x 1/3 = 1/18 to solve real-life problems.*
KS 2 Y6	Fractions	[EXS] [KEY] Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6].	*I know how to divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6].*	*I know how to divide proper fractions by whole numbers [for example, 1/3 ÷ 4 = 1/12] to solve problems.*
KS 2 Y6	Fractions	[EXS] [KEY] Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8].	*I can change a fraction into a decimal - for example, I can change 3/8 to 0.375 by dividing 1 by 8 and multiplying by 3.*	*I can change a fraction into a decimal confidently - for example, I can change 3/8 to 0.375 by dividing 1 by 8 and multiplying by 3.*
KS 2 Y6	Fractions	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.	*I can multiply and divide numbers by 10, 100 and 1000 and know what each digit means up to three decimal places.*	*I can multiply and divide numbers by 10, 100 and 1000 and know what each digit means up to three decimal places to solve problems and convert measurements.*
KS 2 Y6	Fractions	[EXS] [KEY] Multiply one-digit numbers with up to two decimal places by whole numbers.	*I can multiply numbers such as 1.45 by a one-digit number - for example 1.45 x 7.*	*I can multiply numbers such as 1.45 by a one-digit number - for example 1.45 x 7 in a range of contexts.*

KS 2 Y6	Fractions	[EXS] [KEY] Use written division methods in cases where the answer has up to two decimal places.	*I use written division methods in cases where the answer has up to two decimal places.*	*I use written division methods confidently in cases where the answer has up to two decimal places.*
KS 2 Y6	Fractions	[EXS] [KEY] Solve problems which require answers to be rounded to specified degrees of accuracy.	*I can solve problems which include rounding to a required accuracy such as the nearest 10, 100 or 10000.*	*I can solve complex problems which include rounding to a required accuracy such as the nearest 10, 100 or 10000.*
KS 2 Y6	Fractions	[EXS] [KEY] Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	*I know the decimal value, percentage and fraction of a range of values - such as 0.5, 50 per cent and 1/2.*	*I can quickly recall the decimal value, percentage and fraction of a range of values in context. - such as 0.5, 50 per cent and 1/2.*
KS 2 Y6	Ratio			
KS 2 Y6	Ratio	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	*I can solve problems about relative sizes (ratio).*	*I can solve complex problems about relative sizes (ratio).*
KS 2 Y6	Ratio	[EXS] [KEY] Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.	*I can find the percentage of an amount - such as finding 15 per cent of 360.*	*I can find the percentage of an amount - such as finding 17 per cent of 360 to solve real-life problems.*
KS 2 Y6	Ratio	Solve problems involving similar shapes where the scale factor is known or can be found.	*I can solve similar shape problems.*	*I can find and use the ratio to solve similar shape problems.*
KS 2 Y6	Ratio	Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	*I can solve problems about unequal sharing - such as 'I need four eggs and for every egg I need three spoonfuls of flour. How much flour do I need?'.*	*I can solve complex problems about unequal sharing involving fractions - such as 'I need four eggs and for every egg I need two and a half spoonfuls of flour. How much flour do I need?'.*
KS 2 Y6	Algebra			
KS 2 Y6	Algebra	[EXS] [KEY] Use simple formulae.	*I know how to use simple formulae such as n - 10 = 2.*	*I can use formulae confidently to solve problems such as 2n - 10 = 2.*
KS 2 Y6	Algebra	Generate and describe linear number sequences.	*I can create a sequence of numbers that follow a rule.*	*I can create a sequence of numbers that follow a rule and identify a rule in a given sequence.*
KS 2 Y6	Algebra	Express missing number problems algebraically.	*I can use a letter (such as n or x) to show a missing number - such as 10 - x = 5.*	*I can use a letters (such as n or x) to show a missing number - such as 10 - x = y + 4.*
KS 2 Y6	Algebra	[EXS] [KEY] Find pairs of numbers that satisfy an equation with two unknowns.	*I can find pairs of numbers that satisfy an equation with two unknowns.*	*I can find all the pairs of numbers that satisfy an equation with two unknowns.*
KS 2 Y6	Algebra	Enumerate possibilities of combinations of two variables.	*I can list possible answers to missing numbers such as listing the possible answers of a and b in a + 6 = b*	*I can list all of the possible answers to missing numbers such as listing the possible answers of a*

			- 10.	*and b in a + 6 = b - 10.*
KS 2 Y6	Measurement			
KS 2 Y6	Measurement	[EXS] [KEY] Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	*I solve problems about different units of measure with three decimal places.*	*I solve more complex problems about converting different units of measure with three decimal places.*
KS 2 Y6	Measurement	[EXS] [KEY] 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.	*I can convert measurements of length, weight, volume and time up to three decimal places in length (for example 0.345kg = 345g).*	*I can convert measurements of length, weight, volume and time confidently, up to three decimal places in length (for example 0.345kg = 345g).*
KS 2 Y6	Measurement	Convert between miles and kilometres.	*I can convert between miles and kilometres.*	*I can convert between miles and kilometres and use this in different subjects.*
KS 2 Y6	Measurement	Recognise that shapes with the same areas can have different perimeters and vice versa.	*I know that even though shapes may have the same area, the perimeter may be different - or a shapes with the same perimeter may have different areas.*	*I know that even though shapes may have the same area, the perimeter may be different - or a shapes with the same perimeter may have different areas. I can find rules and patterns in the results.*
KS 2 Y6	Measurement	Recognise when it is possible to use formulae for area and volume of shapes.	*I can use a formula for area and volume of shapes.*	*I can use a formula to find the area and volume of compound shapes in mathematical puzzles.*
KS 2 Y6	Measurement	Calculate the area of parallelograms and triangles.	*I can calculate the area of parallelograms and triangles.*	*I can calculate the area of parallelograms and triangles and use this to solve problems.*
KS 2 Y6	Measurement	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 [for example, mm3 and km3].	*I can work with the volume of cubes and cuboids using cubic centimetres (cm3) and cubic metres (m3), and other units too such as mm3 and km3.*	*I can solve real-life problems involving volume of cubes and cuboids using cubic centimetres (cm3) and cubic metres (m3), and other units too such as mm3 and km3.*
KS 2 Y6	Shape			
KS 2 Y6	Shape	Draw 2-D shapes using given dimensions and angles.	*I accurately draw 2-D shapes using given dimensions and angles.*	*I accurately draw 2-D shapes to different scales using given dimensions and angles.*
KS 2 Y6	Shape	Recognise, describe and build simple 3-D shapes, including making nets.	*I can recognise, describe and build 3-D shapes, including making nets.*	*I can recognise, describe and build 3-D shapes, including making and identifying nets of compound shapes.*
KS 2 Y6	Shape	[EXS] [KEY] Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.	*I can classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.*	*I can accurately classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and irregular polygons.*
KS 2 Y6	Shape	Illustrate and name parts of circles, including radius, diameter and	*I know the parts of circles, including radius, diameter*	*I can solve practical and challenging problems*

		circumference and know that the diameter is twice the radius.	*and circumference and know that the diameter is twice the radius.*	*involving the radius, diameter and circumference of circles.*
KS 2 Y6	Shape	[EXS] [KEY] Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	*I can work with angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.*	*I can work with angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles and use this to solve real-life problems*
KS 2 Y6	Position			
KS 2 Y6	Position	Describe positions on the full coordinate grid (all four quadrants).	*I can use the four quadrants in a coordinate grid.*	*I can use the four quadrants in a coordinate grid independently.*
KS 2 Y6	Position	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	*I can draw and translate shapes using coordinates or reflect a shape on the grid.*	*I can draw and translate more complex shapes using coordinates or reflect a shape on the grid.*
KS 2 Y6	Statistics			
KS 2 Y6	Statistics	Interpret and construct pie charts and line graphs and use these to solve problems. .	*I can use and construct pie charts and line graphs and use these to solve problems.*	*I can use and construct pie charts and line graph in a range of different subjects and use these to solve problems.*
KS 2 Y6	Statistics	Calculate and interpret the mean as an average.	*I can calculate the mean as an average.*	*I can calculate the mean, median and mode as averages.*