

Early Years Foundation Stage (Nursery and Reception)	Mathematics Early Learning Goals (ELGs)
<p>Mathematics</p> <p>ELG 11 Numbers: Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.</p> <p>ELG 12 Shape, space and measures: Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.</p>	

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Place Value			
Place Value Counting	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • Count numbers to 100 in numerals; count in multiples of twos, fives and tens <p>Autumn 1 and 4 Spring 2 Summer 3</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number <p>Autumn 1 and 3</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 • Count forwards and backwards with positive and negative whole numbers, including through zero <p>Autumn 1</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward <p>Autumn 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Count in multiples of 6, 7, 9 25 and 1000 • Count backwards through zero to include negative numbers <p>Autumn 1</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Place Value Represent	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals • Read and write numbers from 1 to 20 in numerals and words <p>Autumn 1 and 4 Spring 2 Summer 4</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Identify, represent and estimate numbers using different representations • Read and write numbers up to 1000 in numerals and in words <p>Autumn 1</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals <p>Autumn 1</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Read and write numbers to at least 100 in numerals and in words • Identify, represent and estimate numbers using different representations including the number line <p>Autumn 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Identify, represent and estimate numbers using different representations • 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 <p>Autumn 1</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit <p>Autumn 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Place Value In context and compare	<p>Year 1</p> <ul style="list-style-type: none"> Given a number, identify one more and one less <p>Autumn 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) Compare and order numbers up to 1000 <p>Autumn 1</p>	<p>Year 5</p> <ul style="list-style-type: none"> Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit <p>Autumn 1</p>
	<p>Year 2</p> <ul style="list-style-type: none"> Recognise the place value of each digit in a two-digit number (tens, ones) Compare and order numbers from 0 up to 100; use <, > and = signs <p>Autumn 1</p>	<p>Year 4</p> <ul style="list-style-type: none"> Find 1000 more or less than a given number Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) Order and compare numbers beyond 1000 <p>Autumn 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit <p>Autumn 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Place Value Problems and Rounding	<p>Year 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> Solve number problems and practical problems involving these ideas <p>Autumn 1</p>	<p>Year 5</p> <ul style="list-style-type: none"> Interpret negative numbers in context 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 <p>Autumn 1</p>
	<p>Year 2</p> <ul style="list-style-type: none"> Use place value and number facts to solve problems <p>Autumn 1</p>	<p>Year 4</p> <ul style="list-style-type: none"> 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 <p>Autumn 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> 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 <p>Autumn 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Addition and Subtraction			
Addition and Subtraction Recall, Represent, Use	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • Represent and use number bonds and related subtraction facts within 20 <p>Autumn 2 Spring 1</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Estimate the answer to a calculation and use inverse operations to check answers <p>Autumn 2</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy <p>Autumn 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100 • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems <p>Autumn 2</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Estimate and use inverse operations to check answers to a calculation <p>Autumn 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Addition and Subtraction Calculations	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Add and subtract one-digit and two-digit numbers to 20, including zero <p>Autumn 2 Spring 1</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Add and subtract numbers mentally, including: <ul style="list-style-type: none"> • A three-digit number and ones • A three-digit number and tens • A three-digit number and hundreds • Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction <p>Autumn 2</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • 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 <p>Autumn 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Add and subtract numbers mentally including: <ul style="list-style-type: none"> • A two-digit number and ones • A two-digit number and tens • Two two-digit numbers • Adding three one-digit numbers <p>Autumn 2</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate <p>Autumn 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Perform mental calculations, including with mixed operations and large numbers • Use their knowledge of the order of operations to carry out calculations involving the four operations <p>Autumn 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Addition and Subtraction Solve Problems	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems such as $7 = \square - 9$ <p>Autumn 2 Spring 1</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction <p>Autumn 2</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving the four main operations (sometimes combined) including understanding the equals sign <p>Autumn 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> Solve problems with addition and subtraction: <ul style="list-style-type: none"> Using concrete objects and pictorial representations, including those involving numbers, quantities and measures Applying their increasing knowledge of mental and written methods <p>Autumn 2 Spring 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <p>Autumn 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why <p>Autumn 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Multiplication and Division			
Multiplication and Division Recall, Represent, Use	Year 1	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables <p style="text-align: center; color: red;">Autumn 3</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • 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 (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) <p style="text-align: center; color: red;">Autumn 4</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot <p style="text-align: center; color: red;">Autumn 4 Spring 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Recall multiplication and division facts for multiplication tables up to 12 x 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 <p style="text-align: center; color: red;">Autumn 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Identify common factors, common multiples and prime numbers • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy <p style="text-align: center; color: red;">Autumn 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Multiplication and Division Calculations</p>	<p style="text-align: center;">Year 1</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • 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 <p>Autumn 3 Spring 1</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Multiply numbers by up to 4 digits by a one-digit 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. <p>Autumn 4 Spring 1 Summer 1</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs <p>Autumn 4 Spring 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Multiply two-digit and three-digit numbers by a one-digit number using formal written layout <p>Spring 1</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • 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 <p>Autumn 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Multiplication and Division Solve Problems	<p>Year 1</p> <ul style="list-style-type: none"> Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher <p>Summer 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> 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 <p>Spring 1</p>	<p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates <p>Autumn 4 Spring 1</p>
	<p>Year 2</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts <p>Autumn 4 Spring 1</p>	<p>Year 4</p> <ul style="list-style-type: none"> 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 <p>Spring 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> Solve problems involving addition, subtraction, multiplication and division. <p>Autumn 2 (consolidation throughout the year)</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Multiplication and Division Combined Operations	<p>Year 1</p>	<p>Year 3</p>	<p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign <p>Spring 1</p>
	<p>Year 2</p>	<p>Year 4</p>	<p>Year 6</p> <ul style="list-style-type: none"> Use their knowledge of the order of operations to carry out calculations involving the four operations <p>Autumn 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Fractions, Decimals and Percentages			
Fractions Recognise and Write	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Recognise, find and name a half as one of two equal parts of an object, shape or quantity • Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity <p style="text-align: center; color: green;">Summer 2</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • 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 <p style="text-align: center; color: orange;">Spring 5</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • 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 (ie. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$ or $1\frac{1}{5}$) <p style="text-align: center; color: orange;">Spring 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Recognise, find, name and write fractions: <ul style="list-style-type: none"> • $\frac{1}{3}$ of a length, shape, objects or quantity • $\frac{1}{4}$ of a length, shape, objects or quantity • $\frac{2}{4}$ of a length, shape, objects or quantity • $\frac{3}{4}$ of a length, shape, objects or quantity <p style="text-align: center; color: orange;">Spring 4</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten <p style="text-align: center; color: orange;">Spring 3</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Fractions Compare	<p>Year 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions and fractions with the same denominators <p>Summer 1</p>	<p>Year 5</p> <ul style="list-style-type: none"> Compare and order fractions whose denominators are all multiples of the same number <p>Spring 2</p>
	<ul style="list-style-type: none"> Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ <p>Spring 4</p>	<p>Year 4</p> <ul style="list-style-type: none"> Recognise and show, using diagrams, families of common equivalent fractions <p>Spring 3</p>	<p>Year 6</p> <ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions, including fractions > 1 <p>Autumn 3</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Fractions Calculations	<p>Year 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator within one whole (for example $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$) <p>Summer 1</p>	<p>Year 5</p> <ul style="list-style-type: none"> 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 <p>Spring 3</p>
	<ul style="list-style-type: none"> Write simple fractions (ie. $\frac{1}{2}$ of $6 = 3$) <p>Spring 4</p>	<p>Year 4</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator <p>Spring 3</p>	<p>Year 6</p> <ul style="list-style-type: none"> 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 (ie. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$) Divide proper fractions by whole numbers (ie. $\frac{1}{3} \div 2 = \frac{1}{6}$) <p>Autumn 3</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Fractions Solve Problems	Year 1	<p>Year 3</p> <ul style="list-style-type: none"> Solve problems that involve adding and subtracting fractions with the same denominator and comparing and ordering fractions with the same denominator. <p>Spring 5 Summer 1</p>	Year 5
	Year 2	<p>Year 4</p> <ul style="list-style-type: none"> Solve problems that involve increasingly harder fractions to calculate quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number <p>Spring 3</p>	<p>Year 6</p> <ul style="list-style-type: none"> Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Decimals Recognise and Write	Year 1	Year 3	<p>Year 5</p> <ul style="list-style-type: none"> Read and write decimals as fractions (for example $0.71 = \frac{71}{100}$) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents <p>Spring 3</p>
	Year 2	<p>Year 4</p> <ul style="list-style-type: none"> Recognise and write decimal equivalents of any number of tenths or hundredths Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ <p>Spring 4 Summer 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> Identify the value of each digit in numbers given to three decimal places <p>Spring 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Decimals Compare	Year 1	Year 3	<p>Year 5</p> <ul style="list-style-type: none"> 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 <p>Spring 3</p>
	Year 2	<p>Year 4</p> <ul style="list-style-type: none"> 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 <p>Summer 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Decimals Calculations and Problems	Year 1	Year 3	<p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving number up to three decimal places <p>Summer 1</p>
	Year 2	<p>Year 4</p> <ul style="list-style-type: none"> Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths <p>Spring 4</p>	<p>Year 6</p> <ul style="list-style-type: none"> Multiply and divide numbers by 10, 100 and 1000 giving answers up to 3 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 <p>Spring 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Fractions, Decimals and Percentages</p>	<p>Year 1</p>	<p>Year 3</p>	<p>Year 5</p> <ul style="list-style-type: none"> Recognise the percent symbol (%) and understand that percent relates to ‘the number of parts per 100’ and write percentages as a fraction with a denominator of 100 and as a decimal Solve problems which require knowing percentages and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 <p>Spring 3</p>
	<p>Year 2</p>	<p>Year 4</p> <ul style="list-style-type: none"> Solve simple measure and money problems involving fractions and decimals to two decimal places <p>Spring 3 and 4 Summer 1</p>	<p>Year 6</p> <ul style="list-style-type: none"> Associate a fraction with division and calculate decimal fraction equivalents (ie. 0.375 is equal to $\frac{3}{8}$ and $3 \div 8$) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <p>Spring 1 and 2</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Ratio and Proportion			
Ratio and Proportion	Year 1	Year 3	Year 5
	Year 2	Year 4	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Solve problems involving the relative sizes of two quantities where the missing values can be found by using integer multiplication and division facts • Solve problems involving the calculation of percentages (ie. 15% of 360) 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 <p style="text-align: right; color: orange;">Spring 6</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Algebra			
Algebra	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations. • Solve missing number problems such as $7 = \square - 9$ <p>Throughout the year, although algebraic notation is not introduced until Year 6</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Solve problems, including missing number problems <p>Throughout the year, although algebraic notation is not introduced until Year 6</p>	Year 5
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems <p>Throughout the year, although algebraic notation is not introduced until Year 6</p>	Year 4	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • 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 <p style="color: orange;">Spring 3</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Measurement			
Measurement: Using Measures	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Compare, describe and solve practical problems for: <ul style="list-style-type: none"> • Lengths and heights (ie. Longer, shorter, double, halve) • Mass/weight (ie. Heavier, lighter) • Capacity and volume (ie. Full, empty, more than, less than, half full) • Time (ie. quicker, slower, earlier, later) • Measure and begin to record the following: <ul style="list-style-type: none"> • Lengths and heights • Mass/weight • Capacity and volume • Time (hours, minutes, seconds) <p>Spring 3 and 4 Summer 6</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Measure, compare, add and subtract: lengths (m, cm, mm), mass (kg/g), volume/capacity (l/ml) <p>Spring 4 Summer 4</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Convert between different units of metric measure (ie. Km to m, l to ml etc.) • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • Use all four operations to solve problems involving measure (ie. Length, mass, volume, money) using decimal notation, including scaling <p>Summer 1, 4 and 5</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Choose and use appropriate standard units to estimate and measure length and height in any direction (m/cm); mass (kg and g); temperature (°c); capacity (l/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • Compare and order lengths, mass, volume/capacity and record the results using <, > and = <p>Spring 5 Summer 4</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Convert between different units of measure (ie. Km to m; hour to minute) • Estimate, compare and calculate different measures <p>Autumn 3 Spring 2 Summer 3</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • 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 up to three decimal places • Convert between miles and kilometres <p>Spring 4</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Measurement Money	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Recognise and know the value of different denominations of coins and notes <p style="text-align: center;">Summer 5</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Add and subtract amounts of money to give change, using both £ and p in practical contexts <p style="text-align: center;">Spring 2</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Use all four main operations (+, -, x, ÷) to solve problems involving measure and specifically in this context, money <p style="text-align: center;">Summer 1</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • Find different combinations of coins that equal the same amounts of money • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <p style="text-align: center;">Autumn 3</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Estimate, compare and calculate different measures, including money in pounds and pence <p style="text-align: center;">Summer 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Consolidation throughout the year

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Measurement Time</p>	<p>Year 1</p> <ul style="list-style-type: none"> Sequence events in chronological order using language (ie. Before, after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) Recognise and use language relating to dates, including days of the week, weeks, months and years Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times <p>Summer 6</p>	<p>Year 3</p> <ul style="list-style-type: none"> 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 using vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight Know that there are 60 seconds in a minute and the number of days in each month, year and leap year Compare durations of events (ie. Time taken by particular events or tasks) <p>Summer 2</p>	<p>Year 5</p> <ul style="list-style-type: none"> Solve problems involving converting between units of time <p>Summer 4</p>
	<p>Year 2</p> <ul style="list-style-type: none"> Compare and sequence intervals of time Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know that there are 60 minutes in an hour and 24 hours in a day <p>Summer 3</p>	<p>Year 4</p> <ul style="list-style-type: none"> Read, write and convert between analogue and digital 12 and 24 hour clocks Solve problems involving converting from hours to minutes, minutes to seconds, years to months and weeks to days <p>Summer 3</p>	<p>Year 6</p> <ul style="list-style-type: none"> Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit and vice-versa <p>Summer 4</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Measurement Perimeter, Area, Volume	<p style="text-align: center;">Year 1</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Measure the perimeter of simple 2D shapes <p style="text-align: center;">Spring 4</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • Calculate and compare the area of rectangles (including squares), use standard units (cm² and m²) and estimate the area of irregular shapes • Estimate volume (for example using 1cm³ blocks to build cuboids (including cubes))and capacity <p style="text-align: center;">Autumn 5 Summer 5</p>
	<p style="text-align: center;">Year 2</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Find the area of rectilinear shapes by counting squares <p style="text-align: center;">Autumn 3 Spring 2</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • 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 standardised units, including cubic centimetres (cm³) and cubic metres (m³) and extending to other units (ie. mm³ or km³) <p style="text-align: center;">Spring 5</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Geometry			
Geometry: 2D Shapes	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Recognise and name common 2D shapes (ie. rectangles including squares, circles and triangles) <p style="text-align: center; color: red;">Autumn 3</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> • Draw 2D shapes <p style="text-align: center; color: green;">Summer 3</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles • Use the properties of rectangles to deduce related facts and find missing lengths and angles <p style="text-align: center; color: green;">Summer 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line • Identify 2D shapes on the surface of 3D shapes (ie, a circle on a cylinder or a triangle on a pyramid) • Compare and sort common 2D shapes and everyday objects <p style="text-align: center; color: orange;">Spring 3</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • Identify lines of symmetry in 2D shapes presented in different orientations <p style="text-align: center; color: green;">Summer 5</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • Draw 2D shapes using given dimensions and angles • Compare and classify geometric shapes based on their properties and sizes • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <p style="text-align: center; color: green;">Summer 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Geometry: 3D Shapes	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> Recognise and name common 3D shapes (ie. cuboids including cubes, pyramids and spheres) <p>Autumn 3</p>	<p style="text-align: center;">Year 3</p> <ul style="list-style-type: none"> Make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them <p>Summer 3</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> Identify 3D shapes, including cubes and other cuboids, from 2D representations <p>Summer 2</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> Recognise and name common 3D shapes (ie. cuboids including cubes, pyramids and spheres) Compare and sort common 3D shapes and everyday objects <p>Spring 3</p>	<p style="text-align: center;">Year 4</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> Recognise, describe and build simple 3D shapes, including making nets <p>Summer 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Geometry: Angles and Lines</p>	<p>Year 1</p>	<p>Year 3</p> <ul style="list-style-type: none"> • 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 parallel and perpendicular lines <p>Summer 3</p>	<p>Year 5</p> <ul style="list-style-type: none"> • 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 (360°) • Identify angles at a point on a straight line and 1/2 turn (180°) • Identify other multiples of 90° <p>Summer 2</p>
	<p>Year 2</p>	<p>Year 4</p> <ul style="list-style-type: none"> • Identify acute and obtuse angles and compare and order angles up to two right angles by size • Identify lines of symmetry in 2D shapes presented in different orientations • Complete a simple symmetric figure with respect to a specific line of symmetry <p>Summer 3</p>	<p>Year 6</p> <ul style="list-style-type: none"> • Find unknown angles in any triangles, quadrilaterals and regular polygons • Recognise angles where they meet at a point, are on a straight line or are vertically opposite and find missing angles <p>Summer 1</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
<p>Geometry: Position and Direction</p>	<p style="text-align: center;">Year 1</p> <ul style="list-style-type: none"> • Describe position, direction and movement, including whole, quarter and three-quarter turns <p>Summer 3</p>	<p style="text-align: center;">Year 3</p>	<p style="text-align: center;">Year 5</p> <ul style="list-style-type: none"> • 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 <p>Summer 3</p>
	<p style="text-align: center;">Year 2</p> <ul style="list-style-type: none"> • Order and arrange combinations of mathematical objects in patterns and sequences • Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) <p>Spring 3 Summer 1</p>	<p style="text-align: center;">Year 4</p> <ul style="list-style-type: none"> • Describe positions on a 2D 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 <p>Summer 6</p>	<p style="text-align: center;">Year 6</p> <ul style="list-style-type: none"> • 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 <p>Autumn 4</p>

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Statistics			
Statistics: Present and Interpret	Year 1	Year 3 <ul style="list-style-type: none"> Interpret and present data using bar charts, pictograms and tables Spring 3	Year 5 <ul style="list-style-type: none"> Complete, read and interpret information in tables, including timetables Autumn 3
	<ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables Spring 2	Year 4 <ul style="list-style-type: none"> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Summer 4	Year 6 <ul style="list-style-type: none"> Interpret and construct pie charts and line graphs and use these to solve problems Summer 3

Skill Area	Key Stage 1	Lower Key Stage 2	Upper Key Stage 2
Statistics: Solve Problems	Year 1	Year 3 <ul style="list-style-type: none"> Solve one-step and two-step questions (ie. How many more? How many fewer?) using information presented in scaled bar charts, pictograms and tables Spring 3	Year 5 <ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in a line graph Autumn 3
	<ul style="list-style-type: none"> Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity Ask and answer questions about totalling and comparing categorical data Spring 2	Year 4 <ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs Summer 4	Year 6 <ul style="list-style-type: none"> Calculate and interpret the mean as an average Summer 3