	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer2
Maths Overview						
Nursery						
Reception						
Year 1	**Number and Place Value** • To read and write numbers from 0-20. • Begin to recognise the place value of numbers up to 20 (tens and ones). • Identify one more and one less of a given number. **Addition and Subtraction** • Read, write and interpret mathematical statements (+, - and =) • Number bond facts to 10 and 20. • Add and subtract numbers. • Solve simple one-step problems involving addition and subtraction. **2D/3D shapes** Recognise and name common 2D and 3D shapes. **Sequencing and Sorting** • Recognise and create repeating patterns with numbers, objects and shapes. • Identify odd and even numbers. • Sort objects, number and shapes. • • Sort objects, number and shapes to a given criterion and their own.	**Length, mass and weight** • Compare and describe lengths, heights and weights. • Measure and begin to record lengths, heights and weights. • Solve practical problems relating to lengths and weight. **Capacity and Volume** • Compare and describe capacity/volume (e.g. full, empty, half full) • Measure and begin to record capacity. **Money** • Recognise and know the value of different coins. **Time** • Sequence events in chronological order. • Recognise and use language relating to dates, including days of the week, weeks, months and years. • Measure and begin to record time.	**Number and Place Value** • Identify ten more and ten less. • Order numbers to 50. • Recognise the place value of numbers beyond 20. • Read and write numbers from 1 to 20 in numerals and words. • Recognise the place value of numbers beyond 20 (tens and ones). • Use the language of equal to, more than and less than **Mass/weight** • Record mass/weight using non-standard and standard units of weight. • Solve practical problems for mass/weight. **Addition and subtraction** • Represent and use number bonds and related subtraction facts within 20. • Subtract one-digit and two-digit numbers to 20 using 'difference' as find how many more to make. • Solve problems relating to finding the difference.	**Measurement - Length, Mass and Weight** • Measure and record lengths/heights. • Measure and record mass/weight. • Solve practical problems for lengths, heights and masses/weights. **Money** • Recognise and know the value of different coins and notes. • Solve practical problems relating to coins. **2D and 3D Shapes** • Begin to recognise properties of 2D and 3D shapes. **Position and Direction** • Describe position, direction and movements using half, quarter and three quarter turns. **Time** • Tell the time to the hour and half past. • Draw times on a clock. • Measure and begin to record time. • Solve practical problems relating to time.	**Measurement – Capacity/Volume** • Record capacity and volume using non-standard and standard units. • Solve practical problems relating to capacity/volume. **Fractions** • Recognise, find and name a half as one of two equal parts of a quantity. • Recognise, find and name a quarter as one of four equal parts of a quantity. **Multiplication and Division** • Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with teacher support. • Counting multiples of twos, fives and tens. • Recall and use doubles/halves of all numbers to 10.	**Money** • Recognise and know the value of different coins and notes. Solve practical problems relating to money. **Measurement** • Solve practical problems relating to measurement. **Addition and subtraction** • Represent and use number bonds and related subtraction facts within 20. • Subtract one-digit and two-digit numbers to 20 using 'difference' as find how many more to make. • Solve problems relating to finding the difference. **Number and Place Value** • Identify ten more and ten less. • Order numbers to 50. • Recognise the place value of numbers beyond 20. • Read and write numbers from 1 to 20 in numerals and words. • Recognise the place value of numbers beyond 20 (tens and ones). • Use the language of equal to, more than and less than **Statistics** • Present and interpret data in block diagrams using practical equipment. • Ask and answer questions by comparing categorical data.

Year 2	**Number and Place Value** - use place value and number facts to solve problems - Recognise the place value of each digit in a 2-digit number (Tens/Units) - count in steps of 2, 5 and 10 from 0 and in tens from any number forward and backward - identify, represent and estimate numbers using different representation, including the number line - compare and order numbers from 0 - 100; use (<, >, =) - read and write numbers to at least 100 in numerals and in words **Addition and Subtraction** - solve problems using concrete objects and pictorial representations, including numbers quantities and measures -addition on blank/ numbered number lines -add and subtract numbers using concrete objects, pictorial representations and mentally including: a 2-digit number and ones; a 2-digit number and tens; 2, 2-digit numbers; adding 3, 1-digit numbers **Geometry – position and direction** -Order and arrange combinations of mathematical objects in patterns and sequences (shape and colour sequences)	**Addition and Subtraction** -recall and use addition & subtraction facts to 20 fluently, and derive and use related facts up to 100 -recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems (number families **Multiplication and Division** -division (sharing equally, division into equal groups and working with a remainder) **Measurement** -Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	**Addition and Subtraction** -show that addition of 2 numbers can be done in any order (commutative) and subtraction of one number from another cannot -Applying their increasing knowledge of mental and written methods (column addition and subtraction) **Multiplication and Division** -Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. (Multiplication array, 2, 3, 5, 10) **Geometry – properties of shapes** -identify and describe the properties of 2d shapes, including the number of sides and line symmetry in a vertical line. -identify and describe the properties of 3d shapes, including the number of edges, vertices and faces -identify 2d shapes on the surface of 3d shapes -compare and sort common 2d and 3d shapes and everyday objects (2D/3D shapes) **Measurement** -Tell the time including quarter past/to the hour and draw the hands on a clock face to show these times	**Measurement** -Time (1/4 to past, nearest 5 minutes) -choose and use appropriate standard units to estimate and measure length/ height in any direction (m/cm); mass (kg/g); - Compare and order lengths and mass **Addition and Subtraction** -Subtraction (column, including borrowing) **Fractions** -recognise, find, name and write fractions (1/2, ¼, ¾ 1/3) of a length, shapes, set of objects or quantity -write simple fractions -recognise the equivalence of 2/4 and ½ **Number – multiplication and division** -Arithmetic problems -recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers -calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), (/) and (=) signs -show that multiplication of 2 numbers can be done in any order (commutative) and division of one number from another cannot	**Measurement** -temperature (degrees centigrade); capacity (litres/ ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. -Compare and order volume/capacity and record the results using <, > and = -Time (1/4 to, past, 5 mins and word problems) - compare and sequence intervals of time -know the number of minutes in an hour and the number of hours in a day **Addition, Subtraction Multiplication, Division and fractions** -Addition -Arithmetic, problem solving and reasoning (+, -, x /) and fractions **Geometry – position and direction** -Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line. (Position and movement) - Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise	**Number and Place Value** -Word problems using (+, - x, /) -count in steps of 2, 3, and 5 from 0 and in tens from any number forward and backward **Statistics** -Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. -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 (Statistics tally, bar, pictogram) **Geometry – properties of shapes** -Symmetry - angles, obtuse, acute and right angles **Measurement** -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 -Addition Value of added coins -Subtraction change from an amount)
Year 3	**Place Value:** - Read and write numbers to at least 1000 - Recognise place value of each digit in 3 digit number - Compare and order numbers to 1000 - Round numbers to at least 1000 to the nearest 10 and 100 **Mental calculation:**	**Counting Multiplication Tables (3x 4x)** - Count from 0 in multiples of 4. -Recall and use multiplication and division facts for the 3 and 4 times tables. -Describe and extend number sequences involving counting on or back in different steps.	**Place Value Mental + & -** - Find 1, 10 or 100 more or less than a given number. - Count from 0 in multiples of 50 and 100. - Describe and extend number sequences involving counting on or back in different steps.	**2d & 3d shape – sorting** - Recognise 3-D shapes in different orientations and describe them. - Recognise that angles area property of a shape or a description of a turn. - Identify whether angles are greater than or less than a right angle.	**Multiplication facts – statistics** - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. **X & ÷ measures** - Write and calculate mathematical statements for division using the multiplication tables that	*Revision of:* *Place value in the context of measures* **Mental calculation** in a variety of contexts, including money, measures and statistics **Fractions in practical contexts** **Measures**

- -Find 1, 10 or 100 more or less from a given number
- -Add U and T mentally from HTU
- -Subtract u and T mentally from HTU

2d shape:
- -Draw 2D shape and describe them

Length including perimeter
- -Measure, compare, add and subtract lengths (mm, cm & m)
- -Understand perimeter is a measure of distance around a boundary of a shape
- -Measure the perimeter of a 2D shape

Statistics
- -Interpret and present data using bar charts and tables
- -Solve one and two step problems

Written addition
- -To add numbers with up to three digits using column addition
- -To estimate the answer to the calculation and use the inverse.

Written subtraction
- -To subtract numbers with up to three digits using column subtraction
  - To estimate the answer to the calculation and use the inverse.

Written & mental X
- -Write and calculate mathematical statements
-
- -Solve problems, including missing number problems involving multiplication, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.
- Written & mental ÷
- -Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to formal written methods.
  - *Solve problems involving money and measures.*
- Solve problems, including missing number problems, involving division (and interpreting remainders) and correspondence problems in which n objects are connected to m objects.

Time
- -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

- Add and subtract mentally: - a three-digit number and ones
- a three-digit number and tens
- a three-digit number and hundreds.

Fractions
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
- Understand that finding a fraction of an amount relates to division.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Show practically or pictorially that a fraction is one whole number divided by another (for example, $\frac{3}{4}$ can be interpreted as 3 ÷ 4).

Fractions and Division
- Understand that finding a fraction of an amount relates to division.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Understand how division statements can be represented using arrays.
- Understand division as sharing and grouping and use each appropriately.

Volume & capacity
- Measure, compare, add and subtract volumes and capacities.
- Solving measurement Problems
- Solve problems involving and measures.

Mass

- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

+ & - statistics
- Add numbers with up to three digits, using formal written method of columnar addition.
- Subtract numbers with up to three digits, using formal written method of columnar subtraction.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
- Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.

Fractions
- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole (using diagram) (for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$).
- Compare and order unit fractions and fractions with the same denominators (including on a number line).

Position & direction
- Use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and

- they know, including for two-digit numbers divided by one-digit numbers, using mental and progressing to formal written methods.

2d shape – sorting
- Draw 2-D shapes and describe them.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
- Measure the perimeter of simple shapes.
- Recognise that angles are a property of a 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.

Decimals
- 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.
- Identify the value of each digit to one decimal place.
- Read and write numbers with one decimal place.
- Compare and order numbers with one decimal place.
- Continue to recognise and use symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds and pence.
- Recognise that ten 10p coins are equivalent to £1 and that each coin is $\frac{1}{10}$ of £1.

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
- Measure the perimeter of simple 2-D shapes.
- *Solve problems involving measures.*

Statistics
- Interpret and present data using bar charts, pictograms and tables.
- Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.

the number of days in each month, year and leap year. • Solve simple problems involving passage of time. **3d shape** • -Make 3-D shapes using modelling materials. • Recognise 3-D shapes in different orientations and describe them. • -Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	• Measure, compare, add and subtract masses. • Solving measurement Problems • 8X table • Count from 0 in multiples of 8. • Recall and use multiplication and division facts for the 8 multiplication tables. • Use sorting diagrams to compare and sort numbers. • Describe and extend number sequences involving counting on or back in different steps. **Multiplication - statistics, measures & money** • Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.(Grid Method) • Solve problems involving money and measures. • Solve problems, including missing number problems involving multiplication	movement in a straight line. (Year 2 objective) • Describe positions on a square grid labelled with letters and numbers. **Time** • 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.

+ & - money • *Solve problems involving money* • Add and subtract amounts of money to give change, using both £ and p in practical contexts. **3d shape – sorting** • Make 3-D shapes using modelling materials. • Recognise 3-D shapes in different orientations and describe them.		

Year 4	**Number and place value** Recognise the place value of each digit in a four-digit number including decimals Round any number to the nearest 10, 100 or 1000 Find 0.1, 1, 10, 100 or 1000 more or less than a given number. **Addition and Subtraction** Add and subtract numbers with up to 4 digits and decimals with one decimal place using the formal written methods of columnar addition and subtraction	**Multiplication & Division** Understand place value and multiplication facts to develop written methods for multiplication. Develop a written methods of division Mental Division, using place value, known and derived facts to divide mentally. **Measures** Estimate, measure and compare lengths Calculate the perimeter and area of rectangles **Position and Direction**	**Number & Place Value** Use place value describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps. Count backwards through zero to include negative numbers. **Fraction & Decimals** Understand that a fraction is one whole number divided by another (for example, $\frac{3}{4}$ can be interpreted as $3 \div 4$). Add and subtract fractions with the same denominator.	**Number and Place Value** Identify the place value of each digit to two decimal places. **Multiplication** Know how to multiply together three numbers. Recognise and use factor pairs and commutativity in mental calculations. Develop use of written multiplication for problem solving **Geometry** Identify lines of symmetry in 2-D shapes presented in different orientations.	**Number and Place Value** Describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps. **Decimals** Develop their knowledge and understanding of decimals and relate multiplying and dividing by 10 and 100 to decimal notation and to converting units of measure. **Measures** Estimate, compare and calculate different measures.	**Number** Solve number and practical problems that with increasingly large positive number including decimals **Statistics** Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs **Addition and Subtraction** Add and subtract numbers with up to 4 digits and decimals with one decimal place using the efficient

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Calculations Understand how to check calculations using inverse operations **Geometry** Recognise properties of 2D shapes including angles and symmetry **Time** Read time to the nearest minute is developed to include converting between different time systems (analogue and digital) and different units of time. **Roman Numerals** Recognise Roman Numerals **Multiplication** Recall multiplication facts up to and including 12x 12	Describe positions on a 2-D grid as coordinates in the first quadrant. **Statistics** Interpret and present discrete data using appropriate graphical methods, including in bar charts, pictograms, tables and other graphs. **Multiplication** Recall multiplication facts up to and including 12x 12	Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators. Recognise and write decimal equivalents to ¼ ; ½ ; ¾ . Solve simple measure and money problems involving fractions and decimals to two decimal places. **Multiplication** Recall multiplication facts up to and including 12x 12	Plot specified points and draw sides to complete a given polygon **Addition & Subtraction** Add and subtract numbers with up to 4 digits and decimals with one decimal place using the formal written methods of columnar addition and subtraction where appropriate. **Statistics** Interpret discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. **Multiplication** Recall multiplication facts up to and including 12x 12	Apply their knowledge of the number system when measuring lengths (mm, cm, m), capacities / volumes (ml, l) and masses (g, kg). Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days and problems involving money and measures. **Geometry** Complete a simple symmetric figure with respect to a specific line of symmetry. Plot specified points and draw sides to complete a given polygon **Position & Direction** Describe movements between positions on a 2-D grid as translations of a given unit to the left/right and up/down. **Multiplication** Recall multiplication facts up to and including 12x 12	written methods of columnar addition and subtraction where appropriate. **Multiplication and division** Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, division (including remainders) **Geometry** Use a variety of sorting diagrams to compare and classify numbers and geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. **Multiplication** Recall multiplication facts up to and including 12x 12
Year 5	**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. -Describe and extend number sequences -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. -Find 1, 10, 100, 1000 and other powers of 10 more or less than a given number than a given number. -Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. -Read, write, order and compare numbers with up to three decimal places. -Find 0.01, 0.1, 1, 10, 100, 1000 and other powers of 10 more or less than a given number than a given number. -Count forwards and backwards in decimal steps. -Round decimals with two decimal places to the nearest whole number and to one decimal place.	**Multiplication & Division** -Identify multiples and factors, including finding all factor pair -Know and use the vocabulary of prime numbers. -Recognise and use square numbers -Use partitioning to double or halve any number, including decimals to two decimal places. -Multiply and divide numbers mentally -Solve problems involving multiplication and division -Multiply numbers up to 4 digits by a one- or two-digit number using including long multiplication for two-digit numbers. -Divide numbers up to 4 digits by a one-digit number using short division and interpret remainders -Solve problems involving division. **Fractions** -Count on and back in mixed number steps -Read and write decimal numbers as fractions. -Identify, name and write equivalent fractions	**Place value** -Interpret negative numbers and count forwards and backwards with positive and negative whole numbers -Calculate difference in temperature -Describe and extend number sequences including multiplication and division steps including decimals -Order temperatures -Read Roman numerals to 1000 and recognise years written in Roman numerals. **Addition and subtraction** -Add and subtract numbers mentally with decimals to two decimal places. -Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, using formal written methods -Use estimation and inverse to check answers to calculations -Solve addition and subtraction multi-step problems **Multiplication & Division** -Identify multiples and factors -Multiply and divide numbers mentally	**Multiplication & Divison** -Identify multiples and factors -Divide numbers mentally -Divide numbers up to 4 digits by a one-digit number using short division and interpret remainders -Solve problems involving addition, subtraction, multiplication and division **Geometry** -Distinguish between regular and irregular polygons -Use the properties of rectangles to deduce related facts and missing lengths and angles. -Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. **Fractions, Decimals & Percentages** -Recognise mixed number and improper fractions and convert from one form to the other. -Add and subtract fractions with the same denominator and denominators that are multiples of the same number	**Place value** -Read, write, order and compare numbers to at least 1 000 000 - Identify the value of each digit to three decimal places. -Read, write, order and compare numbers with up to three decimal places. -Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. -Count forwards and backwards in decimal steps. -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. -Round decimals with two decimal places to the nearest whole number and to one decimal place. -Find 0.01, 0.1, 1, 10, 100, 1000 and other powers of 10 more or less than a given number than a given number. **Fractions** -Recognise mixed numbers and improper fractions and convert from one form to another. -Compare and order fractions	**Place Value** -Read, write, order and compare numbers to at least 1 000 000 -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. **Addition, Subtraction, Multiplication & Division** -Add and subtract whole numbers with more than 4 digits and decimals with two decimal places -Multiply numbers up to 4 digits by a one- or two-digit number -Divide numbers up to 4 digits by a one-digit number -Solve problems involving addition, subtraction, multiplication and division **Fractions/decimals/percentages** -- Round decimals with two decimal places to the nearest whole number and to one decimal place.

-Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. **Addition and subtraction** -Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods -Use estimation and inverse to check answers to calculations Solve addition and subtraction multi-step problems **Geometry** -Estimate and compare acute, obtuse and reflex angles. -Draw given angles and measure them in degrees **Measure** -Distinguish between regular polygons based on reasoning about equal sides and angles. -Measure and calculate the perimeter of rectilinear shapes in centimetres and metres. **Statistics** -Solve comparison, sum and difference problems using information presented in a line graph.	-Compare and order fractions -Solve problems involving fractions. **Statistics** -Read, write and convert time between analogue and digital 12 and 24-hour clocks. -Complete, read and interpret information in tables, including timetables. -Solve problems involving converting between units of time. **Measures** -Calculate and compare the area of rectangles and estimate the area of irregular shapes.	-Multiply numbers up to 4 digits by a one- or two-digit number using long multiplication -Solve problems involving multiplication, including scaling **Measures** -Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation. Use, read and write standard units of length and mass to a suitable degree of accuracy. -Estimate and calculate capacity. -Multiply and divide numbers and those involving decimals by 10, 100 and 1000. -Convert between different units of metric measure **Geometry** -Distinguish between regular and irregular polygons -Describe positions on the first quadrant of a coordinate grid. -Plot specified points and complete shapes. -Identify, describe and represent the position of a shape following a reflection or translation -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 -Identify angles at a point on a straight line and a turn	Write mathematical statements > 1 as a mixed number, **Measures** -Calculate and compare the area of rectangles and estimate the area of irregular shapes. -Estimate (and calculate) volume **Statistics** -Use, read and write standard units of length and mass -Estimate and calculate capacity. -Calculate and interpret the mode, median and range.	-Identify, name and write equivalent fractions including tenths and hundredths. -Add and subtract fractions -Multiply proper fractions and mixed numbers by whole numbers **Measures** -Read, write and convert time between analogue and digital 12 and 24-hour clocks. -Complete, read and interpret information in tables, including timetables. -Solve problems involving converting between units of time. -Solve comparison, sum and difference problems using information presented in all types of graph including a line graph. **Geometry** -Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. -Use the properties of rectangles find missing lengths and angles. -Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. -Describe positions on the first quadrant of a coordinate grid. -Plot specified points and complete shapes. -Identify, describe and represent the position of a shape following a reflection or translation **Addition and subtraction** -Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods -Add and subtract numbers mentally -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. **Multiplication & division** -Divide numbers up to 4 digits by a one-digit number using of short division	-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 **Measures** -Solve problems involving converting between units of time. -Use all four operations to solve problems involving measure -Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. -Estimate volume (for example, using 1 cm³ blocks to build cuboids (including cubes)) and capacity (for example, using water). **Geometry** -Calculate and compare the area of rectangles and estimate the area of irregular shapes.

					-Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. -Recognise and use square numbers and cube numbers -Solve problems involving multiplication and division	
Year 6	**Place Value** • Read, write, order and compare numbers up to 10 000 000 • Round any whole number • Use negative numbers in context, and calculate intervals across zero. • Count forwards or backwards in steps of integers, decimals or powers of 10 for any number. • Order and compare numbers including integers, decimals and negative numbers. • Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more or less than a given number. • Recall and use addition and subtraction facts for 1 (with decimal numbers to two decimal places). • Round decimals with three places to the nearest whole number or one or two decimal places. • 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. **Addition & Subtraction** • Perform mental calculations, including with mixed operations and large numbers and decimals. • Choose an appropriate strategy to solve a calculation • Solve addition and subtraction multi-step problems • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Use estimation and inverse to check answers to calculations • Add and subtract whole numbers and decimals using column addition and subtraction • Solve problems which require answers to be rounded to specified degrees of accuracy. **Multiplication & Division**	**Fractions, percentages, ratio and proportion** • Identify common factors, common multiples and prime numbers. • Compare and order fractions, including fractions >1 • Add and subtract fractions with different denominators and mixed numbers • Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). • Recall and use equivalences between simple fractions, decimals and percentages • Solve problems involving fractions. • Find simple percentages of amounts. • Solve problems involving the calculation of percentages • 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. **Geometry** • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. **Statistics** • Interpret and construct pie charts and line graphs and use these to solve problems. • Solve comparison, sum and difference problems using information presented in all types of graph. **Measures** • Solve problems involving the calculation and conversion of units of measure (including money and time)	**Place value** • Count forwards or backwards in steps of integers, decimals or powers of 10 for any number. • Describe and extend number sequences • Use simple formulae. • Generate and describe linear number sequences. **Geometry** • 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. **Measures** • Use negative numbers in context • Order and compare numbers including integers, decimals and negative numbers. • Calculate and interpret the mean as an average. **Fractions** • Identify common factors, common multiples and prime numbers. • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • 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 • Calculate decimal fraction equivalents for a simple fraction **Multiplication & Division** • Divide numbers up to 4 digits by a two-digit whole number using long division • Divide numbers up to 4 digits by a two-digit number using short division	**Addition & Subtraction** • Add and subtract whole numbers and decimals using formal written methods • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Use their knowledge of the order of operations to carry out calculations involving the four operations. **Measurement, Ratio and proportion** • Solve problems involving similar shapes where the scale factor is known or can be found. • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time • Solve problems involving the calculation and conversion of units of measure (including money and time) • 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 • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. • Convert between miles and kilometres. **Geometry** • 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	**Place Value** • Count forwards or backwards in steps of integers, decimals or powers of 10 for any number. • Order and compare numbers including integers, decimals and negative numbers. • Identify, represent and estimate numbers using the number line. • Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more or less than a given number. • Round decimals • Simplify fractions • Compare and order fractions, • Add and subtract fractions • Calculate decimal fraction equivalents **Multiplication & Written Calculation** • Perform mental calculations, including with mixed operations and large numbers and decimals. • Add and subtract whole numbers and decimals using formal written methods • Solve problems involving addition, subtraction, multiplication and division, using formal written methods. • Use estimation and inverse to check answers to calculations **Fractions, ratio and proportion** • Multiply simple pairs of proper fractions • Divide proper fractions by whole numbers • Solve problems involving the calculation of percentages • Solve problems involving similar shapes where the scale factor is known or can be found. **Geometry** • Draw 2-D shapes using given dimensions and angles.	**Place Value & Decimals** • Count forwards or backwards in steps of integers, decimals or powers of 10 for any number. • Order and compare numbers including integers, decimals and negative numbers. • Calculate differences in temperature • Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more or less than a given number. • Round decimals with three places • Describe and extend number sequences **Measures** • Solve problems involving the calculation and conversion of units of measure • Use, read, write and convert between standard units • Calculate, estimate and compare volume of cubes and cuboids using standard units **Addition, Subtraction, Multiplication & Division** • Perform mental calculations, including with mixed operations and large numbers and decimals. • Add and subtract whole numbers and decimals using formal written methods • Solve problems involving addition, subtraction, multiplication and division using formal written methods • Use estimation and inverse to check answers to calculations **Fractions** • Use common factors to simplify fractions • Compare and order fractions, including fractions >1 • Add and subtract fractions with different denominators • Multiply simple pairs of proper fractions

• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using long multiplication. • Multiply one-digit numbers with up to two decimal places by whole numbers. • Divide numbers up to 4 digits by a two-digit whole number using long division • Divide numbers up to 4 digits by a two-digit number using short division, interpreting remainders • Use written division methods in cases where the answer has up to two decimal places. • Perform mental calculations, including with mixed operations and large numbers and decimals. • Solve problems involving addition, subtraction, multiplication and division. • Express missing number problems algebraically. **Geometry** • 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. • Continue to complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes).	• Use, read, write and convert between standard units, converting measurements of length and mass • Convert between miles and kilometres. • Recognise that shapes with the same areas can have different perimeters and vice versa. • Calculate the area of parallelograms and triangles. • Recognise when it is possible to use the formulae for area and volume of shapes. • Calculate, estimate and compare volume of cubes and cuboids using standard units	• Use written division methods where the answer has up to two decimal places. • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using long multiplication. • Multiply one-digit numbers with up to two decimal places by whole numbers.	triangles, quadrilaterals, and regular polygons. • Continue to complete and interpret information in a variety of sorting diagrams • 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. • Recognise that shapes with the same areas can have different perimeters and vice versa. • Recognise when it is possible to use the formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles. • Calculate, estimate and compare volume of cubes and cuboids **Statistics** • Interpret and construct pie charts and line graphs and use these to solve problems. • Solve comparison, sum and difference problems using information presented in all types of graph.	• 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. **Algebra & Sequences** • Describe and extend number sequences including those with multiplication and division steps, inconsistent steps, alternating steps and those where the step size is a decimal. • Use simple formulae. • Generate and describe linear number sequences. **Measures** • Solve problems involving the calculation and conversion of units of measure (including money and time), using decimal notation up to three decimal places • Use, read, write and convert between standard units • Calculate and interpret the mean as an average. **Statistics** • Solve comparison, sum and difference problems using information presented in all types of graph.	• Divide proper fractions by whole numbers **Geometry** • 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. • Continue to complete and interpret information in a variety of sorting diagrams • Illustrate and name parts of circles, including radius, diameter and circumference • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.