The Leys Primary School Subject Overview - Maths 2021-22

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS Nursery	**Comparison** Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same' **Cardinality** In everyday situations, takes or gives one or two objects from a group. Beginning to notice numerals in the environment. **Counting** Begins to say numbers in order, some of which are in the right order. May enjoy counting verbally as far as they can go Begin to recognise numerals 0 to 3 Subitises one, two and three objects	**Comparison** Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same' **Cardinality** Beginning to count on their fingers to 5. Counts up to three items, recognising that the last number said represents the total counted so far. **Counting** Points or touches each item, saying one number for each item, using the stable order of 1,2,3 Uses some number names and number language within play, and may show fascination with large numbers	**Comparison** Compares two small groups of up to three objects, saying when there are the same number of objects in each group. **Cardinality** In everyday situations, takes or gives two or three objects from a group. Beginning to recognise numerals in the environment. **Counting** May enjoy counting verbally as far as they can go Begin to recognise numerals 0 to 5 Counts up to five items, recognising that the last number said represents the total counted so far	**Comparison** Compares two small groups of up to three objects, saying when there are the same number of objects in each group. **Cardinality** Beginning to count on their fingers to 7. Counts up to four items, recognising that the last number said represents the total counted so far. **Counting** Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. Uses some number names and number language within play, and may show fascination with large numbers	**Comparison** Compares two small groups of up to four objects, saying when there are the same number of objects in each group. **Cardinality** In everyday situations, takes or gives three or four objects from a group. **Counting** May enjoy counting verbally as far as they can go Begin to recognise numerals 0 to 10	**Comparison** Compares two small groups of up to five objects, saying when there are the same number of objects in each group. **Cardinality** Beginning to count on their fingers to 10. Counts up to five items, recognising that the last number said represents the total counted so far. **Counting** Links numerals with amounts up to 5 and maybe beyond Explores using a range of their own marks and signs to which they ascribe mathematical meanings
Key Skills'	**Number** Take part in finger rhymes with numbers. Develop counting-like behaviour, such as	**Number** React to changes of amount in a group of up to three items Recite numbers past 5.	**Number** Compare amounts, saying 'lots', 'more' or 'same'. **Numerical patterns** Understand position	**Number** Know that the last number reached when counting a small set of objects tell you how many	**Number** Link numerals and amounts.Experiment with their own symbols and marks as well as	**Number** Solve real world mathematical problems with numbers up to 5. **Numerical patterns**

	making sounds, pointing or saying some numbers in sequence. Count in everyday contexts, sometimes skipping numbers - '1-2-3-5 Fast recognition of up to 3 objects, without having to count them individually (subitising). **Numerical patterns** Compare quantities using language 'more than', 'fewer than'.	Say one number for each item in order: 1,2,3,4,5. **Numerical patterns** Talk about and explore 2D and 3D shapes using informal and mathematical language.	through words alone. Describe a familiar route. Discuss routes and locations. Select shapes appropriately. Combine shapes to make new ones.	there are in total (cardinal principle). Show finger numbers up to 5. **Numerical patterns** Make comparisons between objects relating to size, length, weight, capacity.	numerals. **Numerical patterns** Talk about and identify the patterns around them. Extend and create patterns.	Notice and correct an error in a repeating ABAB patterns. Begin to describe a sequence of events, real or fictional.
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	More,lots,same, fewer, count, compare, subitise, numbers, recognise,	More, less, circle, square, rectangle, triangle, lots,same, fewer, count, compare, subitise,	More,lots,same, fewer, count, , compare, subitise, shape	Long, short, full,empty, big,small.heavy,light, more,lots,same, fewer, count, compare, subitise,	Compare, create, pattern, count, identify, addition, subtraction,	Same, compare, correct, complete, sequence, total, addition, subtraction.
Key Texts						
Key themes and values	Counting, comparison	Shapes, comparison,	Position, shape,	Comparison,	Patterns,	Sequencing,
EYFS Reception	**Comparison** Uses number names and symbols when comparing numbers, showing interest in large numbers **Counting**	**Cardinality** Count out up to 4 objects from a larger group **Counting** Begin to recognise numerals 0 to 10 **Numerical Patterns**	**Counting** Enjoys reciting numbers from 0 to 10 and beyond Increasingly confident at putting numerals in order 0 to 10 (ordinality) Engages in subitising	**Comparison** Estimates of numbers of things, showing understanding of relative size **Cardinality** Engages in subitising	**Counting** Enjoys reciting numbers from 0 to 10 and beyond and back from 10 to 0 **Cardinality** Engages in subitising numbers to four and	**ELG- number** Have a deep understanding of number to 10, including the composition of each number; Subitise up to 5;

Enjoys reciting numbers from 0 to 10 Increasingly confident at putting numerals in order 0 to 5 Begin to understand how to subitise **Cardinality** Through play and exploration, beginning to learn that numbers are made up of smaller numbers. Counts out up to 5 objects from a larger group Matches the numeral with a group of items to show how many there are (up to 4) **Numerical Patterns** Spots patterns in the environment, beginning to identify the pattern "rule" **Composition** Shows awareness that numbers are made up of smaller numbers, exploring partitioning in different ways with a wide range of objects	Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat **Cardinality** Links numerals with amounts up to 5 and maybe beyond Explores using a range of their own marks and signs to which they ascribe mathematical meanings **Composition** Shows awareness that numbers are made up of smaller numbers, exploring partitioning in different ways with a wide range of objects Engages in subitising numbers to four and maybe five	numbers to 2 and 3 **Cardinality** Counts out up to 7 objects from a larger group Matches the numeral with a group of items to show how many there are (up to 6) **Numerical Patterns** Creates their own spatial patterns showing some organisation or regularity **Composition** Beginning to use understanding of number to solve practical problems in play and meaningful activities	numbers to 3 and 4 Count out up to 6 objects from a larger group **Numerical Patterns** Explores and adds to simple linear patterns of two or three repeating items. **Composition** Begins to conceptually subitise larger numbers by subitising smaller groups within the number.	maybe five Counts out up to 10 objects from a larger group Matches the numeral with a group of items to show how many there are (up to 10) **Numerical Patterns** Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next **Composition** Beginning to recognise that each counting number is one more than the one before Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same In practical activities, adds one and subtracts one with numbers to 10	Automatically recall number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. **Numerical Patterns** Verbally count beyond 20, recognising the pattern of the counting system. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. **Composition** Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"
Number Count objects, actions and sounds. Subitise. **Numerical patterns**	**Number** Link the number symbol (numeral) with it cardinal. Number value. **Numerical patterns**	**Number** Compare numbers. Count beyond ten. **Numerical patterns** Create own patterns with	**Number** Understand the 'one more than/one less than' relationship between consecutive numbers.	**Number** Explore the composition of numbers to 10. **Numerical patterns** Continue, copy and create	**Number** Explore the composition of numbers to 10. **Numerical patterns** Automatically recall

Key Skills

	Select, rotate and manipulate shapes in order to develop spatial reasoning skills.	Compare length, weight and capacity. Talk about and explore 2D and 3D shapes using informal and mathematical language.	organisation and repetition	**Numerical patterns** Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	repeating patterns	number bonds for numbers 0-10.
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	Count, subitise, order, number,	Longer,shorter,long,short circle, square, triangle, rectangle,, cone, cube, cuboid, sphere,	Subitise, order, pattern	Count, subitise, order	Match, add, subtract	Calculations, addition, subtraction
Key Texts						
Key themes and values	Ordering, counting	Capacity, weight, length	Problem solving	1 more and less	Repeating pattern	Number bonds
Year 1	**Place Value** Count to and across 10, forwards and backwards, beginning with 0 or 1, or from any given number. Count numbers to 10 in numerals; count in multiples of twos, fives and tens. Read and write numbers from 1 to 10 in	**Geometry** Recognise and name common 2-D shapes. Recognise and name common 3-D shapes. **Place Value** Count to and across 20, forwards and backwards, beginning with 0 or 1, or from any given number.	**Addition & Subtraction** Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20, including zero. **Place Value** Count to and across 50,	**Measurement** Compare, describe and solve practical problems for lengths and heights; mass/weight and capacity/volume.	**Multiplication & Division** Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays. **Fractions** Recognise, find and name a half as one of two equal parts of an object, shape or quantity.	**Place Value** 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. Read and write numbers from 1 to 100 in numerals and words.

	numerals and words. Identify and represent numbers using objects and pictorial representations. Given a number, identify one more or one less. **Addition & Subtraction** Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Represent and use number bonds and related subtraction facts within 10. Add and subtract one-digit and two-digit numbers to 10, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.	Count numbers to 20 in numerals; count in multiples of twos, fives and tens. Read and write numbers from 1 to 20 in numerals and words.	forwards and backwards, beginning with 0 or 1, or from any given number. Count numbers to 50 in numerals; count in multiples of twos, fives and tens. Read and write numbers from 1 to 50 in numerals and words.		Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. **Geometry** Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	**Measurement** Recognise and know the value of different denominations of coins and notes. Sequence events in chronological order using appropriate language. Recognise and use language relating to dates, including days of the week, weks, 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. Compare, describe and solve practical problems for time

| Key Skills | Count to and across 10, forwards and backwards

Count numbers to 10 in numerals; count in multiples of twos, fives and tens.

Read and write numbers from 1 to 10

Represent and use number bonds and related subtraction facts within 10.

Add and subtract one-digit and two-digit numbers to 10

Solve one-step problems that involve addition and subtraction | Recognise and name common 2-D shapes.

Recognise and name common 3-D shapes.

Count to and across 20, forwards and backwards

Count numbers to 20 in numerals; count in multiples of twos, fives and tens.

Read and write numbers from 1 to 20 | Represent and use number bonds and related subtraction facts within 20.

Add and subtract one-digit and two-digit numbers to 20

Count to and across 50, forwards and backwards.

Count numbers to 50 in numerals; count in multiples of twos, fives and tens.

Read and write numbers from 1 to 50 | Compare, describe and solve practical problems for lengths and heights; mass/weight and capacity/volume. | Solve one-step problems involving multiplication and division

Recognise, find and name a half

Recognise, find and name a quarter

Describe position, direction and movement | Count to and across 100, forwards and backwards

Count numbers to 100 in numerals; count in multiples of twos, fives and tens.

Read and write numbers from 1 to 100

Recognise and know the value of different denominations of coins and notes.

Sequence events in chronological order

Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. |
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| Key People | | | | | | |
| Key subject links | | STEAM week, Enterprise Day | | STEAM week | | STEAM week, Summer Fair |
| Key Vocabulary | place value, count, across 10, forwards, backwards, number, multiples, identify, represent, pictorial representation, more, less, addition, subtraction, interpret, | geometry, recognise, 2-D shape, 3-D shape, place value, count, forwards, backwards. | addition, subtraction, represent, number bonds, one-digit, two-digit, zero, place value, count, multiples. | measurement, compare, length, height, mass, weight, capacity, volume. | multiplication, division, one-step problem, calculate, concrete objects, pictorial representations, arrays, fractions, recognise, half, quarter, geometry, position, direction, | place value, count, forwards, backwards, multiples, measurement, denominations, coins, notes, sequence, chronological order, dates, days of the week, weeks, months, years, |

	addition, subtraction, equals, number bonds.				movement, whole, half, quarter, three-quarter, turn.	time, hour, half-past the hour, clock face.
Key Texts						
Key themes and values	Place value Addition & Subtraction	Geometry Place value	Addition & Subtraction Place value	Measurement	Multiplication & Division Fractions Geometry	Place value Measurement
Year 2	**Place Value** Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. Read and write numbers to at least 100 in numerals and words. Identify, represent and estimate numbers using different representations, including the number line. Recognise the place value of each digit in a two-digit number. Compare and order numbers from 0 up to 100; use < > and = signs. Use place value and	**Addition & Subtraction** Solve problems with addition and subtraction: using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods. **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. Solve simple problems in a practical context involving addition and	**Multiplication & Division** Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. **Statistics** Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.	**Geometry** Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Identify 2-D shapes on the surface of 3-D shapes. Compare and sort common 2-D shapes and everyday objects. Recognise and name common 3-D shapes. Compare and sort common 3-D shapes and everyday objects. **Fractions** Recognise, find, name and	**Measurement** Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) using rulers. Compare and order lengths and record the results using >, < and =. **Geometry** Order and arrange combinations of mathematical objects in patterns and sequences. Use mathematical vocabulary to describe position, direction and movement in a straight line and distinguishing between rotation as a turn and in terms of right	**Measurement** 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 the number of minutes in an hour and the number of hours in a day. Choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit. Compare and order mass,

	number facts to solve problems. **Addition & Subtraction** 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 from 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. Add and subtract numbers using concrete objects, pictorial representations and mentally.	subtraction of money of the same unit, including giving change. **Multiplication & Division** 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.	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.	write fractions ⅓, ¼, ½ and ¾ of a length, shape, set of objects or quantity. Recognise the equivalence of 2/4 and ½	angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	volume/capacity and record the results using >, < and =.
Key Skills	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	Solve problems with addition and subtraction. Recognise and use symbols for pounds (£)	Solve problems involving multiplication and division Interpret and construct simple pictograms, tally	Identify and describe the properties of 2-D shapes Identify 2-D shapes on	Choose and use appropriate standard units to estimate and measure length/height	Compare and sequence intervals of time. Tell and write the time to five minutes, including

	Read and write numbers to at least 100 Recognise the place value of each digit in a two-digit number. Compare and order numbers up to 100 Recall and use addition and subtraction facts to 20 Recognise and use the inverse relationship between addition and subtraction	and pence (p) Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables	charts, block diagrams and simple tables.	the surface of 3-D shapes. Recognise and name common 3-D shapes. Compare and sort common 3-D shapes Recognise, find, name and write fractions ⅓, ¼, ½ and ¾	Compare and order lengths Describe position, direction and movement in a straight line	quarter past/to the hour and draw the hands on a clock face to show these times. Choose and use appropriate standard units to estimate and measure mass, temperature and capacity Compare and order mass, volume/capacity
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	place value, count, steps, number, forward, backward, identify, represent, estimate, recognise, digit, compare, order, less than, greater than, equal to, addition, subtraction, commutative, inverse, relationship, calculations, concrete objects, pictorial representations.	addition, subtraction, solve, concrete objects, pictorial representations, measurement, symbols, pounds, pence, combinations, equivalent, multiplication, division, odd, even, commutative.	multiplication, division, calculate, arrays, repeated addition, statistics, interpret, construct, pictograms, tally charts, block diagrams, tables, quantity.	geometry, identify, properties, 2-D shapes, symmetry, vertical line, 3-D shapes, compare, sort, fractions, recognise, numerator, denominator, length, equivalence.	measurement, standard units, estimate, length, height, metres, centimetres, compare, order, less than, greater than, equals, geometry, pattern, sequence, position, direction, movement, straight line, rotation, angles, clockwise, anti-clockwise.	measurement, compare, sequence, time, five minutes, quarter past, hour, clock face, standard units, estimate, mass, grams, kilograms, temperature, degrees centigrade, capacity, millilitres, litres, units, order, mass, volume, capacity, less than, more than, equals.

Key Texts						
Key themes and values	Place value Addition & Subtraction	Addition & Subtraction Measurement Multiplication & Division	Multiplication & Division Statistics	Geometry Fractions	Measurement Geometry	Measurement
Year 3	**Place Value** Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. Identify, represent and estimate numbers using different representations. Red and write numbers up to 1,000 in numerals and in words. Recognise the place value of each digit in a three-digit number. Compare and order numbers up to 1,000. Solve number problems and practical problems involving these areas. **Addition & Subtraction** Estimate the answer to a calculation and use inverse operations to	**Addition & Subtraction** Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Multiplication & Division** Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.	**Multiplication & Division** Solve problems, including missing number problems, involving multiplication and division. **Measurement** Add and subtract amounts of money to give change, using both £ and p in practical contexts. **Statistics** Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	**Measurement** Measure, compare, add and subtract, lengths (m/cm/mm) Measure the perimeter of simple 2-D shapes. **Fractions** Count up and down in tenths, recognise that tenths arise 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 fraction and non-unit fractions with small denominators. Recognise and use fractions as numbers: unit fraction and non-unit fractions with small denominators.	**Fractions** Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Add and subtract fractions with the same denominator within one whole. Solve problems that involve all of the above. **Measurement** Tell and write the time from an analogue clock. Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use appropriate vocabulary.	**Geometry** Draw 2-D shapes Make 3-D using modelling materials; recognise 3-D shapes in different orientations and describe them. Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. **Measurement** Measure, compare, add and subtract, mass (kg/g)

	check answers. Add and subtract numbers mentally.				Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events.	and volume/capacity (l/ml).
Key Skills	Count from zero in multiples of 4, 8, 50 and 100 Red and write numbers up to 1,000 Recognise place value of each digit in a three-digit number. Compare and order numbers up to 1,000. Add and subtract numbers mentally.	Add and subtract numbers with up to three digits. Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Solve problems, involving multiplication and division. Add and subtract amounts of money Interpret and present data using bar charts, pictograms and tables.	Measure, compare, add and subtract, lengths Measure the perimeter of simple 2-D shapes. Count up and down in tenths.	Recognise and show equivalent fractions Compare and order fractions Add and subtract fractions with the same denominator Tell and write the time from an analogue clock.	Draw 2-D shapes Identify right angles Measure, compare, add and subtract, mass and volume/capacity
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	place value, count, zero, multiples, more, less, identify, represent,	addition, subtraction, digits, formal written method, place value,	multiplication, division, measurement, add, subtract, money, pounds,	measurement, compare, add, subtract, length, metres, centimetres,	fractions, equivalent, denominator, add, subtract, measurement,	Geometry, 2-D shapes, 3-D, angles, property, identify, right angles,

	estimate, digit, addition, subtraction, inverse, operation, mentally.	multiplication, division, recall, facts, times tables, calculate.	pence, statistics, interpret, data, bar charts, pictograms, tables, scale.	millimetres, perimeter, 2-D shape, fractions, tenths, numerator, denominator.	time, analogue clock, estimate, accuracy, seconds, minutes, hours, days, weeks, months, years, duration.	greater than, less than, horizontal, vertical lines, perpendicular, parallel, measurement, compare, add and subtract, mass, grams, kilograms, volume, capacity, litres, millilitres.
Key Texts						
Key themes and values	Place value Addition & Subtraction	Addition & Subtraction Multiplication & Division	Multiplication & Division Measurement Statistics	Measurement Fractions	Fractions Measurement	Geometry Measurement
Year 4	**Place Value** Count in multiples of 6, 7, 9, 25 and 1,000. Count backwards through zero to include negative numbers. Identify, represent and estimate numbers using different representations. Read Roman numerals to 100 and know that over time, the numeral system changed to include the concept of zero and place value. Find 1,000 more or less than a given number.	**Length & Perimeter** Convert between different units of measure. Estimate, compare and calculate different measures Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. **Multiplication & Division** Recall multiplication and division facts for multiplication tables up to 12 x 12. Use place value, known	**Multiplication & Division** Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit. **Area** Find the area of rectilinear shapes by counting squares. **Fractions** Count up and down in hundredths, recognise	**Fractions** Add and subtract fractions with the same denominator. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. **Decimals** Recognise and write decimal equivalents of any number of tenths or hundredths. Recognise and write decimal equivalents to $\frac{1}{4}$,	**Decimals** 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. **Measurement** Estimate, compare and calculate different measures, including money in pounds and pence. Read, write and convert time between analogue and digital 12- and 24-hour clocks	**Statistics** Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. **Geometry** Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

Recognise the place value of each digit in a four-digit number. Order and compare numbers beyond 1,000. Round any number to the nearest 10, 100 or 1,000. Solve number and practical problems that involve all of the above and with increasingly large positive numbers. **Addition & Subtraction** Estimate and use inverse operations to check answers to a calculation. Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction. Solve addition and subtraction two-step problems, deciding which operations to use and why.	and derived facts to multiply and divide mentally. Recognise and use factor pairs and commutativity in mental calculations.	that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Recognise and show, using diagrams, families of common equivalent fractions.	$\frac{1}{2}$, $\frac{3}{4}$ Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. Solve simple measure and money problems involving fractions and decimals to two decimal places.	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Identify lines of symmetry in 2-D shapes presented in different orientations. Identify acute and obtuse angles and compare and order angles up to two right angles by size Complete a simple symmetric figure with respect to a specific line of symmetry. Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down. Plot specified points and draw sides to complete a given polygon.

| Key Skills | Count in multiples of 6, 7, 9, 25 and 1,000.

Count using negative numbers.

Read Roman numerals to 100

Recognise the place value of each digit in a four-digit number.

Order and compare numbers

Round any number to the nearest 10, 100 or 1,000.

Estimate and use inverse operations to check answers to a calculation.

Add and subtract numbers with up to 4 digits.

Solve addition and subtraction two-step problems, deciding which operations to use | Convert between different units of measure.

Estimate, compare and calculate different measures

Measure and calculate the perimeter of a rectilinear figure

Recall multiplication and division facts for multiplication tables up to 12 x 12. | Multiply two-digit and three-digit numbers by a one-digit number.

Find the area of rectilinear shapes

Count up and down in hundredths

Recognise families of common equivalent fractions. | Add and subtract fractions with the same denominator.

Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$

Find the effect of dividing a one- or two-digit number by 10 and 100.

Solve simple problems involving fractions and decimals | Round decimals with one decimal place to the nearest whole number

Compare numbers with the same number of decimal places

Estimate, compare and calculate different measures

Read, write and convert time between analogue and digital 12- and 24-hour clocks

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. | Interpret and present data using graphical methods.

Solve problems using information presented in bar charts, pictograms, tables and other graphs.

Compare and classify geometric shapes

Identify lines of symmetry in 2-D shapes

Identify acute and obtuse angles and compare and order angles

Describe positions on a 2-D grid as coordinates in the first quadrant.

Describe movements as translations to the left/right and up/down. |
|---|---|---|---|---|---|---|
| Key People | | | | | | |

Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	place value, count, negative numbers, estimate, Roman numerals, digit, order, compare, rounding, addition, subtraction, inverse, formal written method.	length, perimeter, convert, measure, estimate, compare, calculate, rectilinear figure, square, rectangle, centimetres, metres, multiplication, division, times tables, factors, commutativity.	multiplication, division, formal written method, distributive law, area, rectilinear shape, square, rectangle, fractions, hundredths, equivalent.	Fractions, add, subtract, numerator, denominator, decimals, equivalent, tenths, hundredths, value, measure, money.	decimals, rounding, whole number, compare, measurement, estimate, compare, calculate, money, pounds, pence, convert, time, analogue, digital, 24-hour clocks, seconds, minutes, hours, days, weeks, months, years.	statistics, interpret, data, graph, bar charts, time graphs, comparison, sum, difference, pictograms, tables, geometry, classify, shapes, quadrilaterals, triangles, properties, size, symmetry, 2-D shape, acute, obtuse, angles, order, right angle, symmetrical, 2-D, grid, coordinates, quadrant, movement, position, translation, plot, points, polygon.
Key Texts						
Key themes and values	Place value Addition & Subtraction	Length & perimeter Multiplication & Division	Multiplication & Division Area Fractions	Fractions Decimals	Decimals Measurement	Statistics Geometry
Year 5	**Place value** Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.	**Multiplication & Division** Identify multiples and factors, including finding all factor pairs of a number, and common	**Multiplication & Division** Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method,	**Fractions** Add and subtract fractions with the same denominator and denominators that are	**Decimals** Solve problems involving number up to three decimal places.	**Position & Direction** Identify, describe and represent the position of a shape following a reflection or translation

Count forwards and backwards with positive and negative whole numbers, including through zero.

Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.

Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.

Interpret negative numbers in context

Round any number up to 1,000,000 to the nearest, 10, 100, 1,000, 10,000, and 100,000.

Solve number problems and practical problems that involve all of the above

Addition & Subtraction

Use rounding to check answers to calculations and determine levels of accuracy

Add and subtract whole | factors of two numbers.

Know and use the vocabulary of prime numbers, prime factors and composite 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 squared and cubed.

Statistics

Complete, read and interpret information in tables, including timetables.

Solve comparison, sum and difference problems using information presented in a line graph.

Perimeter, Area & Volume

Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. | including long multiplication.

Multiply and divide numbers mentally drawing upon known facts.

Divide numbers up to 4 digits by a one- or two-digit number using the formal written method of short division and interpret remainders.

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000.

Solve problems involving multiplication and division including using knowledge of factors and multiples, squares and cubes.

Solve problems involving multiplication and division including, scaling by simple fractions and problems involving simple rates.

Solve problems involving addition, subtraction, multiplication and division, including the meaning of the equals sign. | multiples of the same number.

Multiply proper fractions and mixed numbers by whole numbers.

Decimals

Read and write decimal numbers as fractions.

Recognise and use thousandths and relate them to tenths, hundredths, and decimal equivalents.

Round decimals with two decimal places to the nearest whole number and to one decimal place.

Read, write, order and compare numbers with up to three decimal places.

Fractions, Decimals & Percentages

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. | **2-D Shapes**

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.

3-D Shapes

Identify 3-D shapes including cubes and other cuboids, from 2-D representations.

Angles & Lines

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.

Identify angles at a point on a straight line and half a turn. | and know that the shape has not changed.

Converting units

Convert between different units of metric measure.

Understand and use approximate equivalences between metric units and common imperial units.

Use all four operations to solve problems involving measure using decimal notation, including scaling.

Volume

Compare and estimate volume of different 3-D shapes and estimate capacity using known facts, in different contexts. |

	numbers with more than 4 digits, including using formal written methods. Add and subtract numbers mentally with increasingly large numbers. Solve addition and subtraction multi-step problems, deciding which operations to use and why. Solve problems involving addition, subtraction, multiplication and division, including understanding the meaning of the equals sign.	Calculate and compare the area of rectangles (including squares) and estimate the area of irregular shapes. Estimate volume using 1 cm cubed blocks to build cuboids (including cubes) and capacity.	**Fractions** Identify, name and write equivalent fractions of a given fraction, including tenths and hundredths. Recognise mixed numbers and improper fractions and convert between the two. Compare and order fractions whose denominators are all multiples of the same number.	Solve problems which require knowing percentage and decimal equivalents of various fractions.	Identify other multiples of 90 degrees.	
Key Skills	Count forwards and backwards. Order and compare numbers. Read Roman numerals Interpret negative numbers Round numbers	Identify multiples and factors. Establish whether a number up to 100 is prime Recognise and use square numbers and cube numbers Read and interpret information in tables	Multiply numbers up to 4 digits by a one- or two-digit number Divide numbers up to 4 digits by a one- or two-digit number Solve problems involving addition, subtraction, multiplication and division Identify, name and write	Add and subtract fractions Multiply proper fractions and mixed numbers by whole numbers. Read and write decimal numbers as fractions. Round decimals with two decimal places	Solve problems involving number up to three decimal places. Distinguish between regular and irregular polygons Identify 3-D shapes, from 2-D representations. Estimate and compare	Represent the position of a shape following a reflection or translation. Convert between different units of metric measure. Use all four operations to solve problems involving measure Compare and estimate

	Add and subtract whole numbers

Solve addition and subtraction multi-step problems, deciding which operations to use

Solve problems involving addition, subtraction, multiplication and division. | Solve problems using information presented in a line graph.

Calculate the perimeter of composite rectilinear shapes

Calculate and compare the area of rectangles

Estimate volume | equivalent fractions

Recognise mixed numbers and improper fractions and convert between the two.

Compare and order fractions | Order and compare numbers with up to three decimal places.

Write percentages as a fraction and as a decimal.

Solve problems with percentages, decimals and fractions. | acute, obtuse and reflex angles.

Draw given angles, and measure them in degrees. | volume of different 3-D shapes and estimate capacity |
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair
Key Vocabulary	Place value, count, order, compare, digit, rounding, positive, negative numbers, Roman numerals, addition, subtraction, multiplication, division, operations	factors, multiples, prime, composite, square and cube numbers, statistics, timetable, line graph, perimeter, area, volume, capacity, composite rectilinear, rectangles, squares, regular, irregular.	Multiplication, division, remainders, factors, multiples, squares, cubes, scaling, fractions, equivalent, mixed numbers, improper fractions, convert, compare, order, denominator, numerator.	Decimals, equivalent, rounding, order, compare, fractions, percentages, per cent, convert	shapes, 2-D, 3-D, angles, right angle,degrees, acute, obtuse, reflex, triangles, square, rectangle, regular, irregular, polygons, properties.	Ition, shape, reflection, translation, coordinates, quadrant, convert, metric, measure, equivalent, imperial, scale, volume, 3-D, capacity.
Key Texts						
Key themes and values	Place value
Addition & subtraction	Multiplication & Division
Statistics
Perimeter, Area & Volume	Multiplication & Division
Fractions	Fractions, Decimals & Percentages	Decimals
2-D shapes
3-D shapes
Angles & Lines	Position & Direction
Converting units
Volume
Year 6	**Place Value**	**Multiplication & Division**	**Decimals**	**Measurement**	**2-D Shapes**	

Read, write, (order and compare) numbers up to 10,000,000 and determine the value of each digit.

Round any whole number to a required degree of accuracy.

Use negative numbers in context, and calculate intervals across zero.

Solve number and practical problems that involve all of the above.

Addition & Subtraction

Perform mental calculations, including with mixed operations and large numbers

Use knowledge of order of operations to carry out calculations involving the four operations.

Solve addition and subtraction multi-step problems, deciding which operations and methods to use and why | Solve problems involving addition, subtraction, multiplication and division.

Use knowledge of the order of operations to carry out calculations involving the four operations

Fractions

Use common factors to simplify fractions; use common multiples to express fractions in the same denomination

Compare and order fractions, including fractions > 1

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

Multiple simple pairs of proper fractions, writing the answer in the simplest form

Divide proper fractions by whole numbers | Identify the value of each digit in numbers given to three decimal places

Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

Multiply one-digit numbers with up to two decimal places by whole numbers

Use written division methods in cases where the answer has up to two decimal places

Solve problems which require answers to be rounded to specified degrees of accuracy.

Fractions, Decimals & Percentages

Associate a fraction with division and calculate decimal fractions equivalents for a simple fraction.

Recall and use equivalences between simple fractions, decimals and percentages. | Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places.

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.

Perimeter, Area & Volume

Recognise shapes with the same areas can have different perimeters and vice versa.

Recognise when it is a possible to use formulae for area and volume of shapes.

Calculate the area of parallelograms and triangles. | Draw 2-D 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.

3-D shapes

Recognize, describe and build simple 3-D shapes, including making nets.

Angles & Lines

Find unknown angles in any triangles, quadrilaterals, and regular polygons.

Recognize angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Statistics

Interpret and construct | |

| | **Multiplication & Division**

Identify common factors, common multiples and prime numbers.

Use estimation to check answers to calculations and determine an appropriate degree of accuracy

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 four 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.

Divide numbers up to four digits by a two-digit number using the formal written method of short division, interpreting | **Geometry**

Describe positions on the full coordinate grid (and all four quadrants)

Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. | **Algebra**

Use simple formulae.

Generate and describe linear number sequences.

Express missing number problems algebraically.

Find pairs of numbers that satisfy an equation with two unknowns.

Enumerate possibilities of combinations of two variables. | Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and extending to other units.

Ratio & Proportion

Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.

Solve problems involving the calculation of percentages and the use of percentages for comparison.

Solve problems involving similar shapes where the scale factor is known or can be found.

Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. | pie charts and line graphs and use these to solve problems.

Calculate and interpret the mean as an average. | |

	remainders according to the context. Perform mental calculations, including with mixed operations and large numbers					
Key Skills	Ordering numbers Rounding numbers Working with negative numbers Solve addition and subtraction multi-step problems, deciding which operations and methods to use. Multiply multi-digit numbers up to 4 digits by a two-digit whole number. Divide numbers up to four digits by a two-digit whole number.	Solve problems involving addition, subtraction, multiplication and division. Simplify fractions Compare and order fractions Add and subtract fractions Multiple simple pairs of proper fractions Divide proper fractions by whole numbers Describe positions on the full coordinate grid Reflect and translate simple shapes.	Multiply and divide numbers by 10, 100 and 1000 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 Recall and use equivalences between simple fractions, decimals and percentages. Use simple formulae. Find pairs of numbers that satisfy an equation with two unknowns.	Convert between standard units of measurement. Solve problems involving the conversion of units of measure. Calculate area and perimeter of simple shapes. Calculate, estimate and compare volume of cubes and cuboids Solve problems involving the relative sizes of two quantities. Solve problems involving similar shapes where the scale factor is known or can be found.	Draw 2-D shapes Compare and classify geometric shapes. Recognize, describe and build simple 3-D shapes Find unknown angles in any triangles, quadrilaterals, and regular polygons. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average.	
Key People						
Key subject links		STEAM week, Enterprise Day		STEAM week		STEAM week, Summer Fair

Key Vocabulary	Place value, order, compare, digit, rounding, negative numbers, integers, addition, subtraction, multiplication, division, operations, factors, multiples, prime numbers, estimate, remainders, fractions, numerator, denominator	addition, subtraction, multiplication, division, compare, order, operations, factors, multiples, simplify, numerator, denominator, equivalent, mixed numbers, improper fractions, position, coordinates, grid, quadrant, axes, translation, reflection.	Digit, decimal, multiply, divide, rounding, fractions, percentages, equivalent, algebra, formula, linear sequence, equation, variables.	Measurement, unts, conversion, length, mass, volume, millimetres, centimetres, metres, kilometres, grams, kilograms, perimeter, aarea, volume, shapes, 2-D, 3-D, square, rectangle, triangle, cubes, cuboids, ratio, proportion, relative size, scale factor.	shapes, 2-D, 3-D, nets, angles, right angle, acute, obtuse, reflex, triangles, square, rectangle, regular polygons, quadrilaterals, perpendicular, interpret, construct, pie charts, line graphs, mean, average.	
Key Texts						
Key themes and values	Place Value Addition & Subtraction Multiplication & Division	Multiplication & Division Fractions Geometry	Decimals Fractions, Decimals & Percentages Algebra	Measurement Perimeter, Area & Volume Ratio & Proportion	2-D shape 3-D shape Angles & lines Statistics	

Ensure you consider - diversity, gender. age, recent/old etc of key people, include whole school theme weeks e.g. STEAM, Healthy Living and enough detail to support an NQT, Check this with current year group staff before sending to AB and posting on the website