Curriculum Overview: Maths
Progression map

Nursery

Number	Numerical Patterns
•Subitise small amounts of up to 3 objects •Link numeral and quantity up to 3 •Count reliably to 5, and beginning to count beyond 5 •Say one number name for each item in order 1,2,3,4,5 •Know the last number reached when counting a set of objects tells you how many there are ('cardinal principle') •Show 'finger numbers' up to 3 •Solve real world mathematical problems up to 3 •Experiments with own symbols and marks as well as numerals •Verbally rote count to 10 •Compares quantities by 'more than', 'less than' and 'the same' •Knows, explores simple composition and sings a selection of number rhymes. e.g. 5 little frogs –2 frogs on the log, 3 in the pool	•Extend and create simple AB patterns •Talks about and identifies patterns around them e.g. stripes on clothes •Spotting and exploring errors in repeating patterns •Begin to describe a sequence of events (real or fictional), using words such as first, then, etc •Sorts objects by a variety of criteria •Describes similarities and differences **Shape and space (Spatial reasoning)** •Talk about and explore 2D and 3D shapes, using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'. •Select shapes appropriately e.g. triangular prism for a roof. •Understand and use positional language •Make comparisons between objects relating to size, length, weight and capacity.

Reception

Number	Numerical Patterns
• Have a deep understanding of number to 10 and 20, including the composition of each number. E.g. 15 has 1 10 and 5 ones •Subitise numbers to 5, and use subitising skills to begin to identify larger numbers e.g. 5 and 2 is 7 •Know 1 more and 1 less •Recall some double and halving facts	**Compare quantities** • Be able to identify- More than, Less than, Equal to • Be able to share practically between different groups • Compare length, weight and capacity **Number patterns** • Explore, continue and create patterns (including AB, ABB and ABBC)

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- Knows number bonds to 10, with rapid recall of numbers to 5
- Know the composition of numbers to 10 and use different examples to show this.
- Be able to complete simple addition and subtraction calculations using chosen resources to help
- Verbally count to 20 and beyond and confidently counts objects, actions and sounds

- Be aware of Odd and Even numbers and sharing
- Use stepping patterns to identify more/ less number patterns

Shape and space (Spatial reasoning)
- Select rotate and manipulate shapes e.g. magnetic tiles, tangrams, blocks
- Compose and decompose shapes, recognising that shapes can have other shapes within them, e.g.2 triangles can make a square- be able to identify some 2D and 3D

Vocabulary:	**Count, subitise, order/ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than (fewer), add, plus, altogether, total, take away/minus, number bonds, part, whole, digit, double, half, twice as many, equal, unequal, share, group, odd, even, measure, wide(er), narrow(er), compare, longer(er)(est), short(er)(est), length, height, tall(er), weight, capacity, heavy, light, heavier than, lighter than, big/bigger/biggest, full/empty, more than, less than, half/half full, time, quicker, slower, earlier, later, before, after, first, next, today, yesterday, tomorrow, morning, afternoon, evening, day, week, hour, minutes, over, under, between, around, through, on, into, next to, behind, beneath, order, repeat, patterns, on top of**

Year 1

Unit: Number -Place Value (within 10)	**Term:** Autumn
National Curriculum	Progression steps
• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s • given a number, identify 1 more and 1 less	• Sort objects • Count objects • Count objects from a larger group • Represent objects • Recognise numbers as words • Count on from any number

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• identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words	• 1 more • Count backwards within 10 • 1 less • Compare groups by matching • Fewer, more, same • Less then, greater than, equal to • Compare numbers • Order objects and numbers • The number line
Vocabulary:	**Sort, represent multiples, ones, tens**

Unit: Number – Addition and Subtraction (within 10)	**Term:** Autumn
National Curriculum	Progression steps
• read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including 0 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	• Introduce parts and wholes • Part-whole model • Write number sentences • Fact families – addition facts • Number bonds within 10 • Systematic number bonds within 10 • Number bonds to 10 • Addition – add together • Addition – add more • Addition problems • Find a part • Subtraction – Find a part • Fact families – the eight facts • Subtraction – take away/cross out (how many left?) • Take away (How many left?) • Subtraction on a number line. • Add or subtract 1 or 2

Curriculum Overview: Maths
Progression map

Vocabulary:	Addition/add, subtraction, difference, equals, facts, problems, missing number problems, inverse

Unit: Geometry - Shape	**Term:** Autumn
National Curriculum	Progression steps
- recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	- Recognise and name 3-D shapes - Sort 3-D shapes - Recognise and name 2-D shapes - Sort 2-D shapes - Patterns with 2-D and 3-D shapes

Vocabulary:	Sides, corners, properties, pyramids, faces

Unit: Number -Place Value (within 20)	**Term:** Spring
National Curriculum	Progression steps
- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s - given a number, identify 1 more and 1 less - identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least - read and write numbers from 1 to 20 in numerals and words	- Count within 20 - Understand 10 - Understand 11,12 & 13 - Understand 14,15 &16 - Understand 17,18 & 19 - Understand 20 1 more and 1 less - The number line to 20 - Use a number line to 20 - Estimate on a number line to 20 - Compare numbers to 20 - Order numbers to 20

Curriculum Overview: Maths
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Vocabulary:	Sort, represent multiples, ones, tens

Unit: Unit: Number – Addition and Subtraction (within 20)	Term: Spring
National Curriculum	Progression steps
- read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs - represent and use number bonds and related subtraction facts within 20 - add and subtract one-digit and two-digit numbers to 20, including 0 - solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9	- Add by counting on within 20 - Add ones using number bonds - Find and make number bonds to 20 - Doubles - Near doubles - Subtract ones using number bonds - Subtraction – counting back - Subtraction – finding the difference - Related Facts - Missing number problems

Vocabulary:	Addition/add, subtraction, difference, equals, facts, problems, missing number problems, inverse. 2-digit number

Unit: Number – Place value (within 50)	Term: Spring
National Curriculum	Progression steps
- count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s - given a number, identify 1 more and 1 less	- Count from 20 to 50 20, 30, 40 and 50 - Count by making groups of ten - Groups of tens and ones - Partition into tens and ones - The number line to 50 - Estimate on a number line to 50

Curriculum Overview: Maths
Progression map

• identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words	• 1 more, 1 less
Vocabulary:	**Sort, represent multiples, ones, tens**

Unit: Measurement – Length and height	**Term:** Spring
National Curriculum	Progression steps

• compare, describe and solve practical problems for:
  - lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
• measure and begin to record the following:
  - lengths and heights
	• Compare lengths and heights
	• Measure lengths using objects
	• Measure lengths using centimetres

Vocabulary:	**compare**

Unit: Measurement – Mass and volume	**Term:** Spring
National Curriculum	Progression steps
• compare, describe and solve practical problems for: - mass/weight [for example, heavy/light, heavier than, lighter than] - capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]	• Heavier and lighter • Measure mass • Compare mass • Full and empty • Compare volume • Measure capacity

Curriculum Overview: Maths
Progression map

	• Compare capacity
Vocabulary:	**Mass, volume**

Unit: Number – Multiplication and division	**Term:** Summer
National Curriculum	Progression steps
• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	• Count in 10s • Make equal groups • Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups - sharing
Vocabulary:	**Multiplication, division, arrays**

Unit: Number - Fractions	**Term:** Summer
National Curriculum	Progression steps
• recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity • recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity	• Find a half • Find a quarter
Vocabulary:	**Whole, half, quarter, equal parts**

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Unit: Geometry – Position and direction	**Term:** Summer
National Curriculum	Progression steps
• describe position, direction and movement, including whole, half, quarter and three-quarter turns	• Describe turns • Describe position

Vocabulary:	**Position, direction, movement, whole turn, quarter turn, half turn, three-quarter turn**

Unit: Number – Place value (within 100)	**Term:** Summer
National Curriculum	Progression steps
• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s • given a number, identify 1 more and 1 less • identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least • read and write numbers from 1 to 20 in numerals and words	• Counting forwards and backwards within 100 • Partitioning numbers • Comparing numbers • Ordering numbers • One more one less

Vocabulary:	**Sort, represent multiples, ones, tens**

Unit: Measurement - Money	**Term:** Summer
National Curriculum	Progression steps

• recognise and know the value of different denominations of coins and notes	• Recognising coins • Recognising notes • Couniting in coins

Vocabulary:	**Money, coins, notes, pounds, pence**

Unit: Measurement - Time	**Term:** Summer
National Curriculum	Progression steps

• compare, describe and solve practical problems for:
    • time [for example, quicker, slower, earlier, later]
• measure and begin to record the following:
    • time (hours, minutes, seconds)
    • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
• recognise and use language relating to dates, including days of the week, weeks, months and years
• tell the time to the hour and half past the hour and draw the hands on a clock face to show these times
	• Before and after
	• Dates
	• Time to the hour
	• Time to the half hour
	• Writing time
	• Comparing time

Vocabulary:	**Chronological order, days of the week, months of the year, month, year, o'clock, half past, second**

Year 2

Unit: Number -Place Value	**Term:** Autumn

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
- count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward - recognise the place value of each digit in a two-digit number (10s, 1s) - identify, represent and estimate numbers using different representations, including the number line - compare and order numbers from 0 up to 100; use <, > and = signs - read and write numbers to at least 100 in numerals and in words - use place value and number facts to solve problems	- Numbers to 20 - Count objects to 100 by making 10s - Recognise tens and ones - Use a place value chart - Partition numbers to 100 - Write numbers to 100 in words - Flexibly partition numbers to 100 - Write numbers to 100 in expanded form 10s on the number line to 100 10s and 1s on the number line to 100 - Estimate numbers on a number line - Compare objects - Compare numbers - Order objects and numbers - Count it 2s, 5s and 10s - Count in 3s
Vocabulary	**Count in steps, count in multiples, place values, estimate, compare**
Unit: Number – Addition and Subtraction	**Term:** Autumn
National Curriculum	Progression steps
- solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods	- Bonds to 10 - Fact families – addition and subtraction bonds within 20 - Related facts - Bonds to 100 (tens) - Add and subtract 1s - Add by making 10 - Add three 1-digit numbers

Curriculum Overview: Maths
Progression map

• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
 	
• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 	
    • a two-digit number and 1s
 	
    • a two-digit number and 10s
 	
    • 2 two-digit numbers
 	
    • adding 3 one-digit numbers
 	
• show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 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 to the next 10
	• Add across a 10
	• Subtract from a 10
	• Subtract a 1-digit number from a 2-digit number (across a 10)
	• 10 more, 10 less
	• Add and subtract 10s
	• Add two 2-digit numbers (not across a 10)
	• Add two 2-digit numbers (across a 10)
	• Subtract two 2-digit numbers (not across a 10)
	• Subtract two 2-digit numbers (across a 10)
	• Mixed addition and subtraction
	• Compare number sentences
	• Missing number problems

Vocabulary	**Sum, 3-digit number, commutative**

Unit: Geometry - Shape	**Term:** Autumn
National Curriculum	Progression steps
• identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D and 3-D shapes and everyday objects	• Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Lines of symmetry on shapes • Use lines of symmetry to complete shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes

Curriculum Overview: Maths
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	• Make patterns with 2-D and 3-D shapes

Vocabulary	**Pentagon, hexagon, line of symmetry, properties, cylinder, edges, vertices, vertex**

Unit: Measurement - Money	**Term:** Spring
National Curriculum	Progression steps
• recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	• Count money – pence • Count money- pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins • Make the same amount • Compare amounts of money • Calculate with money • Make a pound • Find change • Two-step problems
Vocabulary	**Value, change**

Unit: Number – Multiplication and division	**Term:** Spring
National Curriculum	Progression steps
• 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 (×), division (÷) and equals (=) signs	• Recognise equal groups • Make equal groups • Add equal groups • Introduce the multiplication symbol • Multiplication sentences

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- show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	- Use arrays - Make equal groups – Grouping - Make equal groups – Sharing 2 times-table - Divide by 2 - Doubling and halving - Odd and even numbers 10 times-table - Divide by 10 5 times-table - Divide by 5 - The 5- and 10-times table

Vocabulary	**Multiplication tables, commutative, repeated addition**

Unit: Measurement – Length and height	**Term:** Spring

National Curriculum	Progression steps
- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels - compare and order lengths, mass, volume/capacity and record the results using >, < and =	- Measure length (cm) - Measure length (m) - Compare lengths and heights - Order lengths and heights - Four operations with lengths

Vocabulary	**Standard units, estimate, order, record results, centimetre, metre**

Unit: Measurement – Mass, capacity and temperature	**Term:** Spring

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and =	• Compare mass • Measure mass in grams • Measure mass in kilograms • Four operations with mass • Compare volume and capacity • Measure in millilitres • Measure in litres • Four operations with volume and capacity • Temperature
Volume	**Kilogram, gram, quarter full, three quarters full, litres, millilitres, temperature, Celsius**

Unit: Statistics	**Term:** Summer
National Curriculum	Progression steps
• interpret and construct simple pictograms, tally charts, block diagrams and 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	• Make tally charts • Draw pictograms (1:1) • Interpret pictograms (1:1) • Draw pictograms (2,5 and 10) • Interpret pictograms (2,5 and 10) • Block diagrams
Vocabulary	**Pictograms, tally chart, block diagram, category, sorting, totalling, comparing, horizontal, vertical**

Unit: Number - Fractions	**Term:** Summer

Curriculum Overview: Maths
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National Curriculum	Progression steps
• recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity • write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	• Make equal parts • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Unit fractions • Non-unit fractions • Equivalence of ½ and 2/4 • Find three quarters • Count in fractions
Vocabulary	**Three quarters, third, equivalent fractions, unit fractions, non-unit fractions, numerator, denominator, one whole**

Unit: Geometry – Position and direction	**Term:** Summer
National Curriculum	Progression steps
• order and arrange combinations of mathematical objects in patterns and sequences • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	• Describe movements • Describe turns • Describe movement and turns • Making patterns with shapes
Vocabulary	**Clockwise/anti-clockwise, straight line, rotation, arrange, sequences**

Curriculum Overview: Maths
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Unit: Measurement – Time	Term: Summer
National Curriculum	**Progression steps**
- 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	- O'clock and half past - Quarter past and quarter to - Telling time to 5 minutes - Hours and days - Find durations of time - Compare durations of time
Vocabulary	**Intervals of time, quarter past/to, duration**

Year 3

Unit: Number -Place Value	Term: Autumn
National Curriculum	**Progression steps**
- count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number - recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) - compare and order numbers up to 1,000 - identify, represent and estimate numbers using different representations - read and write numbers up to 1,000 in numerals and in words - solve number problems and practical problems involving these ideas	- Represent numbers to 100 - Partition numbers to 100 - Number line to 100 - Hundreds - Represent numbers to 1,000 - Partition numbers to 1,000 - Flexible partitioning of numbers to 1,000 - Hundreds, tens and ones - Find 1, 10 or 100 more or less - Number line to 1,000

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	• Estimate on a number line to 1,000 • Compare numbers to 1,000 • Order numbers to 1,000 • Count in 50s
Vocabulary	**Ascending, descending, 10 or 100 more, 10 or 100 less, hundreds**

Unit: Number – Addition and Subtraction	**Term:** Autumn
National Curriculum	Progression steps

• add and subtract numbers mentally, including:
    • a three-digit number and 1s
    • a three-digit number and 10s
    • a three-digit number and 100s
• add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction
• estimate the answer to a calculation and use inverse operations to check answers
• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
	• Apply number bonds within 10
	• Add and subtract 1s
	• Add and subtract 10s
	• Add and subtract 100s
	• Sport the pattern
	• Ass 1s across a 10
	• Add 10s across a 100
	• Subtract 1s across a 10
	• Subtract 10s across a 100
	• Make connections
	• Add two numbers (no exchange)
	• Add two numbers (across a 10)
	• Add two numbers (across a 100)
	• Subtract two numbers (across a 10)
	• Subtract two numbers (across a 100)
	• Add 2-digit and 3-digit numbers
	• Subtract a 2-digit number from a 3-digit number
	• Complements to 100
	• Estimate answers
	• Inverse Operations
	• Make decisions

Curriculum Overview: Maths
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Vocabulary	Column addition, column subtraction, exchange, estimate
Unit: Number – Multiplication and Division	**Term:** Autumn
National Curriculum	Progression steps
- 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 - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	- Multiplication – equal groups - Use arrays - Multiples of 2 - Multiples of 5 and 10 - Sharing and grouping - Multiply by 3 - Divide by 3 - The 3 times-table - Multiply by 4 - Divide by 4 - The 4 times-tables - Multiply by 8 - Divide by 8 - The 8 times-table - The 2,4, and 8 times-tables
Vocabulary	**Exchange, mathematical statements, missing number problems, integer scaling problems, correspondence problems, derived facts**
Unit: Number – Multiplication and Division	**Term:** Spring
National Curriculum	Progression steps
recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	- Multiples of 10 - Related calculations

Curriculum Overview: Maths
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National Curriculum	Progression steps
• 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 • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	• Reasoning about multiplication • Multiply a 2-digit number by a 1-digit number – no exchange • Multiply a 2-digit number by a 1-digit number – with exchange • Link multiplication and division • Divide a 2-dgit number by a 1-digit number – no exchange • Divide a 2-dgit number by a 1-digit number – flexible partitioning • Divide a 2-dgit number by a 1-digit number – with remainders • Scaling • How many ways?

Vocabulary	**Exchange, mathematical statements, missing number problems, integer scaling problems, correspondence problems, derived facts**

Unit: Measurement – Length and Perimeter	**Term:** Spring
National Curriculum	Progression steps
• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) • measure the perimeter of simple 2-D shapes	• Measure in metres and centimetres • Measure in millimetres • Measure in centimetres and millimetres • Metres, centimetres and millimetres • Equivalent lengths – m & cm • Equivalent lengths – mm & cm • Compare lengths • Add lengths • Subtract lengths • What is perimeter? • Measure perimeter • Calculate perimeter
Vocabulary	**Millimetre, perimeter**

Curriculum Overview: Maths
Progression map

Unit: Number - Fractions	Term: Spring
National Curriculum	**Progression steps**
- count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 - recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators - recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators - recognise and show, using diagrams, equivalent fractions with small denominators - add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] - compare and order unit fractions, and fractions with the same denominators - solve problems that involve all of the above	- Understand the denominators of unit fractions - Compare and order unit fractions - Understand the numerators of non-unit fractions - Understand the whole - Compare and order non-unit fractions - Fractions and scales - Fractions on a number line - Count in fractions on a number line - Equivalent fractions on a number line - Equivalent fractions as bar models
Vocabulary	**tenths**

Unit: Measurement – Mass and Capacity	Term: Spring
National Curriculum	**Progression steps**
measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	- Use scales - Measure mass in grams - Measure mass in grams and kilograms - Equivalent masses (kg and g) - Compare mass

Curriculum Overview: Maths
Progression map

	• Add and subtract mass • Measure capacity and volume in millilitres • Equivalent capacities and volumes (litres and millilitres) • Compare capacity and volume • Add and subtract capacity and volume

Unit: Number - Fractions	**Term:** Summer
National Curriculum	Progression steps
• count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 • recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above	• Making the whole • Tenths • Count in tenths • Tenths as decimals • Fractions on a number line • Fractions of a set of objects • Equivalent fractions • Compare fractions • Order fractions • Add fractions • Subtract fractions
Vocabulary	**tenths**

Unit: Measurement – Money	**Term:** Summer
National Curriculum	Progression steps

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Progression map

• add and subtract amounts of money to give change, using both £ and p in practical contexts	• Pounds and pence • Convert pounds and pence • Add money • Subtract money • Give change

Unit: Measurement – Time	**Term:** Summer
National Curriculum	Progression steps
• 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, am/pm, 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 • compare durations of events [for example, to calculate the time taken by particular events or tasks]	• Months and years • Hours in a day • Telling the time to 5 minutes • Telling the time to a minute • Using a.m. and p.m. • 24-hour clock • Finding the durations • Comparing durations • Start and end times • Measuring time in seconds

Vocabulary	**Analogue clock, roman numbers, 12-hour clock, 24-hour clock, a.m./p.m., noon, midnight, leap year, digital**

Unit: Geometry - Shape	**Term:** Summer
National Curriculum	Progression steps
• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	• Turns and angles • Right angles in shapes

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
- recognise angles as a property of shape or a description of a turn - identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 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	- Compare angles - Draw accurately - Horizontal and vertical - Parallel and perpendicular - Recognise and describe 2-d shapes - Recognise and describe 3-d shapes - Make 3d shapes
Vocabulary	**Right-angle triangle, heptagon, octagon, polygon, properties, prism, orientations, angles, acute angles, obtuse angles, turn, right angles, half turn, three quarters of a turn, greater than right angle, less than a right angle, horizontal lines, vertical lines, perpendicular lines, parallel lines**

Unit: Statistics	**Term:** Summer
National Curriculum	Progression steps
- interpret and present data using bar charts, pictograms and tables - solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables	- Pictograms - Bar charts - Tables
Vocabulary	**Table, bar chart, one-step problem, two-step problem**

Year 4

Unit: Number – Place value	**Term:** Autumn
National Curriculum	**Progression steps**

Curriculum Overview: Maths
Progression map

• count in multiples of 6, 7, 9, 25 and 1,000 • find 1,000 more or less than a given number • count backwards through 0 to include negative numbers • recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) • order and compare numbers beyond 1,000 • identify, represent and estimate numbers using different representations • 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 • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value	• Represent numbers to 1,000 • Partition numbers to 1,000 • Number line to 1,000 • Thousands • Represent numbers to 10,000 • Partition numbers to 10,000 • Flexible partitioning of numbers to 10,000 • Find 1, 1, 100, 1,000 more or less • Number line to 10,000 • Estimate on a number line to 10,000 • Compare numbers to 10,000 • Order numbers to 10,000 • Roman numerals • Round to the nearest 10 • Round to the nearest 100 • Round to the nearest 1,000 • Round to the nearest 10, 100 or 1,000
Vocabulary	**Negative numbers, roman numbers, 1000 more, 1000 less, thousands, round**

Unit: Number – Addition and Subtraction	**Term:** Autumn
National Curriculum	**Progression steps**
• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate • estimate and use inverse operations to check answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	• Add and subtract 1s, 10s, 100s and 1000s • Add up to two 4-digit numbers – no exchange • Add two 4-digit numbers – one exchange • Add two 4-digit numbers – more than one exchange • Subtract two 4-digit numbers – no exchange • Subtract two 4-digit numbers – one exchange • Subtract two 4-digit numbers – more than one exchange • Efficient subtraction • Estimate answers

Curriculum Overview: Maths
Progression map

	• Checking strategies

Vocabulary	**4-digit number, operations, methods**

Unit: Measure – Area	**Term:** Autumn
National Curriculum	Progression steps
• find the area of rectilinear shapes by counting squares	• What is area? • Counting squares • Making Shapes • Comparing area

Vocabulary	**Rectilinear figure, area**

Unit: Number – Multiplication and Division	**Term:** Autumn
National Curriculum	Progression steps
• recall multiplication and division facts for multiplication tables up to 12 × 12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers • recognise and use factor pairs and commutativity in mental calculations • 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 1 digit, integer scaling	• Multiples of 3 • Multiply and divide by 6 • 6 times table and division facts • Multiply and divide by 9 • 9 times table and division fact • The 3,6 and 9 times-tables • Multiply and divide by 7 • 7 times table and division facts • 11 times-table and division facts • 12 times-table and division facts • Multiply by 1 and 0

Curriculum Overview: Maths
Progression map

problems and harder correspondence problems such as n objects are connected to m objects	• Divide by 1 and itself • Multiply three numbers

Vocabulary	**Factor pairs, formal written layout, distributive law, remainders**

Unit: Number – Multiplication and Division	**Term:** Spring
National Curriculum	Progression steps
• recall multiplication and division facts for multiplication tables up to 12 × 12 • use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers • recognise and use factor pairs and commutativity in mental calculations • 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 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	• Factor pairs • Use factor pairs • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Related facts – multiplication and division • Informal written methods for multiplication • Multiply a 2-digit number by a 1-digit number • Multiply a 3-digit number by a 1-digit number • Divide a 2-digit number by a 1-digit number • Divide a 3-digit number by a 1-digit number • Correspondence problems • Efficient multiplication

Vocabulary	**Factor pairs, formal written layout, distributive law, remainders**

Unit: Measure – Length & Perimeter	**Term:** Spring
National Curriculum	Progression steps

Curriculum Overview: Maths
Progression map

• convert between different units of measure [for example, kilometre to metre; hour to minute] • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares	• Measure in kilometres and metres • Equivalent lengths (km & m) • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes • Find missing lengths in rectilinear shapes • Calculate the perimeter of rectilinear shapes • Perimeter of regular polygons • Perimeter of polygons
Vocabulary	**Kilometres**
Unit: Number – Fractions	**Term:** Spring
National Curriculum	Progression steps
• recognise and show, using diagrams, families of common equivalent fractions • count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 • 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 • add and subtract fractions with the same denominator • recognise and write decimal equivalents of any number of tenths or hundreds • 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, identifying the value of the digits in the answer as ones, tenths and hundredths	• Understand the whole • Count beyond 1 • Partition and mixed number • Number lines with mixed numbers • Compare and order mixed numbers • Understand improper fractions • Convert mixed numbers to improper fractions • Convert improper fractions to mixed numbers • Equivalent fractions on a number line • Equivalent fractions families • Add two or more fractions • Add fractions and mixed numbers • Subtract two fractions • Subtract from whole amounts • Subtract from mixed numbers

• round decimals with 1 decimal place to the nearest whole number • compare numbers with the same number of decimal places up to 2 decimal places • solve simple measure and money problems involving fractions and decimals to 2 decimal places	

Vocabulary	**Hundredths, convert, proper fractions, improper fractions, decimal equivalence, decimal point**

Unit: Number – Decimals	**Term:** Spring & Summer

National Curriculum	Progression steps
• recognise and write decimal equivalents of any number of tenths or hundreds • 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, identifying the value of the digits in the answer as ones, tenths and hundredths • round decimals with 1 decimal place to the nearest whole number • compare numbers with the same number of decimal places up to 2 decimal places • solve simple measure and money problems involving fractions and decimals to 2 decimal places	• Tenths as fractions • Tenths as decimals • Tenths on a place value chart • Tenths on a number line • Divide a 1-digit number by 10 • Divide a 2-digit number by 10 • Hundredths as fractions • Hundredths as decimals • Hundredths on a place value chart • Divide a 1-digit or 2-digit number by 100

Vocabulary	**Hundredths, convert, decimal equivalence, decimal point**

Unit: Measure – Money	**Term:** Summer

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
• estimate, compare and calculate different measures, including money in pounds and pence	• Pounds and pence • Ordering money • Estimating money • Four operations

Unit: Measure - Time	**Term:** Summer

National Curriculum	Progression steps
• 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	• Hours, minutes and seconds • Years, months, weeks and days • Analogue to digital – 12 hour • Analogue to digital – 24 hour

Vocabulary	**convert**

Unit: Geometry - Shape	**Term:** Summer

National Curriculum	Progression steps
• compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify acute and obtuse angles and compare and order angles up to 2 right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry	• Identify angles • Compare and order angles • Triangles • Quadrilaterals • Lines of symmetry • Complete a symmetric figure

Curriculum Overview: Maths
Progression map

Vocabulary	Isosceles, equilateral, scalene, trapezium, rhombus, parallelogram, kite, geometric shapes, quadrilaterals

Unit: Statistics	Term: Summer
National Curriculum	**Progression steps**
- 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 graph	- Interpret charts - Comparison, sum and difference - Introducing line graphs - Line graphs

Vocabulary	Co-ordinates, first quadrant, grid, translations, plot, polygon, axis

Unit: Geometry – Position & Direction	Term: Summer
National Curriculum	**Progression steps**
- 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	- Describe a position - Draw on a grid - Move on a grid - Describe movement on a grid

Vocabulary	time graph, discrete data, continuous data, line graph, comparison problem, sum problem, difference problem, calculate, interpret

Year 5

Curriculum Overview: Maths
Progression map

Unit: Number – Place value	Term: Autumn
National Curriculum	**Progression steps**
- Count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000 - Count forwards and backwards with positive and negative whole numbers, including through zero - Read, write (order and compare) numbers to at least 1,000,000 and determine the value of each digits - Read Roman numerals to 100 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, 1000, 10 000, and 100 000 - Solve number problems and practical problems that involve all of the above - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	- Roman numerals to 1,000 - Numbers to 10,000 - Numbers to 100,000 - Numbers to a million - Powers of 10 10/100/1000/10,000/100,000 more or less - Partition numbers to 1,000,000 - Number line to 1,000,000 - Compare and order numbers to 100,000 - Round numbers within 100,000 - Compare and order numbers to one million - Round to the nearest 10, 100 and 1,000 - Round within 100,000 - Round within 1,000,000

Vocabulary:	**Ten thousand, one hundred thousands, powers of, integer**

Unit: Number – Addition & subtraction	• Term: Autumn
National Curriculum	**Progression steps**
- Add and subtract whole numbers with more than 4 digits, using the formal written methods - Add and subtract numbers mentally with increasingly large numbers	- Mental Strategies - Add whole numbers with more than 4 digits (column method) - Subtract whole numbers with more than 4 digits (column method) - Round to check answers - Inverse operations

Curriculum Overview: Maths
Progression map

• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	• Multi-step addition and subtraction problems • Compare calculations • Find Missing numbers

Unit: Number – Multiplication and division	**Term:** Autumn
National Curriculum	**Progression steps**
• Identify multiples and factors, including factor pairs of a number, and common 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 for squared and cubed. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	• Multiples • Common Multiples • Factors • Common Factors • Prime Numbers • Square numbers • Cube numbers • Multiply by 10, 100 and 1000 • Divide by 10, 100 and 1,000 • Multiples of 10, 100 and 1000

Vocabulary:	**Multiples, factors, prime numbers, square numbers, cube numbers, short division, product, dividend, divisor, quotient, operations**

Unit: Number: Fractions	**Term:** Autumn
National Curriculum	**Progression steps**
• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	• Equivalent Fractions to unit fractions • Equivalent fractions to non-unit fractions • Recognise equivalent fractions

Curriculum Overview: Maths
Progression map

• Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • Compare and order fractions whose denominators are all multiples of the same number • Add and subtract fractions with the same denominator and denominators that are multiples of the same numbers • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	• Improper fractions to mixed numbers • Mixed numbers to improper fractions • Compare fractions less than 1 • Order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions with the same denominator • Add fractions within 1 • Add fractions with a total greater than 1 • Add to a mixed number • Add two mixed numbers • Subtract fractions • Subtract from a mixed number • Subtract from a mixed number – Breaking the whole • Subtract 2 mixed numbers

Vocabulary:	**Fifth, thousandths, mixed numbers, percent, factors, integer, complements**

Unit: Number: Multiplication and division	**Term:** Spring
National Curriculum	**Progression steps**
• Multiply numbers up to 4-digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally drawing upon known facts • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	• Multiply a 4-digit number by a 1-digit number • Multiply a 2-digit number by a 2-digit number (area model) • Multiply a 2-digit number by a 2-digit number • Multiply a 3-digit number by a 2-digit number • Multiply a 4-digit number by a 2-digit number • Solve problems with multiplication • Short division • Divide a 4-digit number by a 1-digit number • Divide with remainders • Efficient division • Solve problems with multiplication and division

Curriculum Overview: Maths
Progression map

Vocabulary:	Multiples, factors, prime numbers, square numbers, cube numbers, short division, product, dividend, divisor, quotient, operations
Unit: Number: Fractions	**Term:** Spring
National Curriculum	**Progression steps**
• Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • Compare and order fractions whose denominators are all multiples of the same number • Add and subtract fractions with the same denominator and denominators that are multiples of the same numbers • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	• Multiply unit fractions by an integer • Multiply non-unit fractions by an integer • Multiply mixed numbers by integers • Calculate a fraction of a quantity • Fraction of an amount • Find the whole • Using fractions as operators
Vocabulary:	Fifth, thousandths, mixed numbers, percent, factors, integer, complements
Unit: Number – Decimals & Percentages	**Term:** Spring
National Curriculum	**Progression steps**
• Read and write decimal numbers as fractions • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimal with two decimal places to the nearest whole number and to one decimal place	• Decimals up to 2 decimal places • Equivalent fractions and decimals (tenths) • Equivalent fractions and decimals (hundredths) • Equivalent fractions and decimals • Thousandths as fractions • Thousandths as decimals

Curriculum Overview: Maths
Progression map

- Read, write, order and compare numbers with up to 3 decimal places
- Recognise the percent symbol and understand that percent 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 of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25

- Thousandths on a place value chart
- Order and compare decimals (same number of decimal places)
- Order and compare numbers with up to 3 decimal places
- Round to the nearest whole number
- Round to 1 decimal place
- Understand percentages
- Percentages as fractions
- Percentages as decimals
- Equivalent fractions, decimals and percentages.

Unit: Measurement – Perimeter and area	**Term:** Spring
National Curriculum	**Progression steps**
- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres - Calculate and compare the areas of rectangles (including squares), and including using standard units, square centimetres and square metres and estimate the area of irregular shapes	- Perimeter of rectangles - Perimeter of rectilinear shapes - Perimeter of polygons - Area of rectangles - Area of compound shapes - Estimate area
Vocabulary:	**Compound shape, irregular shape, square centimetres, square metres**

Unit: Statistics	**Term:** Spring
National Curriculum	**Progression steps**
- Complete, read and interpret information in tables, including timetables - Solve comparison, sum and difference problems using information presented in a line graph	- Draw line graphs - Read and interpret line graphs - Read and interpret tables - Two-way tables - Read and interpret timetables

Curriculum Overview: Maths
Progression map

• Interpret and construct pie charts and line graphs and use these to solve problems	
Vocabulary	**Timetable, two-way tables**

Unit: Geometry – Properties of Shape	**Term:** Summer
National Curriculum	**Progression steps**
• 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 • Recognise, describe and build simple 3-D shapes, including making nets • Find unknown angles in any triangles, quadrilaterals and regular polygons • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	• Measure angles in degrees • Measure with a protractor • Drawing lines and angles accurately • Calculating angles on a straight line • Calculating angles around a point • Calculating lengths and angles in shapes • Regular and irregular polygons • Reasoning about 3-d shapes
Vocabulary	**Regular polygon, irregular polygon, reflex angles, degrees, one whole turn, angles on a straight line, angles around a point, vertically opposite, missing angles**

Unit: Geometry – Position & Direction	**Term:** Summer
National Curriculum	**Progression steps**
• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	• Position in the first quadrant • Translation • Translation with coordinates • Reflection

Curriculum Overview: Maths
Progression map

	• Reflection with coordinates
Vocabulary	**Reflection**

Unit: Number – Decimals	**Term:** Summer
National Curriculum	**Progression steps**
• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • Round decimal with two decimal places to the nearest whole number and to one decimal place • Read, write, order and compare numbers with up to 3 decimal places • solve problems involving number up to 3 decimal places	• Adding decimals within 1 • Subtracting decimals within 1 • Compliments to 1 • Adding decimals – crossing the whole • Adding decimals with the same number of decimal places • Subtracting decimals with the same number of decimal places • Adding numbers with a different number of decimal places • Subtracting decimals with a different number of decimal places • Adding and subtracting wholes and decimals • Decimal sequences • Multiplying decimals by 10, 100 and 1,000 • Dividing decimals by 10,100 and 1,000
Vocabulary	**Decimal notation**

Number – Negative numbers	**Term** - Summer
National Curriculum	**Progression steps**
• interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0	• Negative numbers

Curriculum Overview: Maths
Progression map

• solve number problems and practical problems that involve all of the above	

Measure – Converting units	Term - Summer
National Curriculum	**Progression steps**
• convert between different units of measure [for example, kilometre to metre; hour to minute]	• Kilograms and kilometres • Millimetres and millilitres • Metric units • Imperial units • Converting units of time • Timetables

Vocabulary:	Metric units, imperial units, inches, pounds, pints, scaling, decimal notation

Unit: Volume	Term: Summer
National Curriculum	**Progression steps**
• Recognise when it is possible to use formulae for area and volume of shapes • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units	• What is volume? • Compare volume • Estimate Volume • Estimate Capacity
Vocabulary:	**Cubic centimetre**

Curriculum Overview: Maths
Progression map

Year 6

Unit: Number – Place value	Term: Autumn
National Curriculum	**Progression steps**
Pupils should be taught to: • 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.	• Numbers to 1,000,000 • Numbers to 10,000,000 • Read and write numbers to 10,000,000 • Powers of 10 • Number line to 10,000,000 • Compare and order any integers • Round any Integer • Negative numbers

Vocabulary:	**Millions, ten millions**

Unit: Number – Addition, subtraction, multiplication and division	• Term: Autumn
National Curriculum	**Progression steps**
• Perform mental calculations, including with mixed operations and large numbers • Use their knowledge of the order of operations to carry out calculation involving the four operations • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Identify common factors, common multiples and prime numbers	• Add and subtract integers • Common Factors • Common Multiples • Rules of divisibility • Prime numbers to 100 • Square and cube numbers • Multiply a 4-digit number by and 2-digit number • Solve problems with multiplication

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
• Use estimation to check answers to calculations and determine, in the context of a problem, 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 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers • Solve problems involving addition, subtraction, multiplication and division • Use their knowledge of the order of operations to carry out calculations involving the four operations	• Short division • Division using factors • Introduction to Long Division • Long Division with remainders • Solve problems with division • Solve multi-step problems • Order of operations • Mental calculations and operations • Reason from known facts

Vocabulary:	**Multi-digit numbers, long division**

Unit: Fractions	**Term:** Autumn
National Curriculum	**Progression steps**
• 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 • Multiply simple pairs of proper fractions, writing the answer in its simplest form • Divide proper fractions by whole numbers	• Equivalent fractions and simplifying • Equivalent fractions on a number line • Compare and order fractions with different denominators • Compare and order fractions with the same numerator • Add and subtract fractions • Add and subtract any 2 fractions • Add mixed numbers • Subtract mixed numbers • Multi-step problems

Curriculum Overview: Maths
Progression map

• Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction • Recall and use equivalences between simple fractions, decimals and percentages including in different contexts	• Multiply fractions by integers • Multiply fractions by fractions • Divide a fraction by an integer • Divide any fraction by an integer • Mixed questions with fractions • Fractions of amounts • Fractions of amounts (find the whole)
Unit: Measurement – Converting Units	**Term:** Autumn
National Curriculum	**Progression steps**
• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • Use, read, write and covert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, using decimal notation to up to three decimal places • Convert between miles and kilometres • Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit and vice versa	• Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial Measures
Vocabulary:	**Conversion, miles, formulae, gallons, stones, ounces, feet**
Unit: Number - Ratio	**Term:** Spring
National Curriculum	**Progression steps**

Curriculum Overview: Maths
Progression map

• Solve problems involving the relative sizes of two quantities where missing values can be found by 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	• Add or multiply? • Use ratio language • Introducing the ratio symbol • Ratios and fractions • Scale drawing • Using scale factors • Similar shapes • Ratio problems • Proportion problems • Recipes

Vocabulary:	Relative size, missing values, integer multiplication, percentages, scale factor, unequal sharing & grouping

Unit: Number: Algebra	Term: Spring
National Curriculum	**Progression steps**
• 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	• 1-step function machines • 2-step function machines • Form expressions • Substitution • Formulae • Forming equations • Solve one-step equations • Solve two-step equations • Find pairs of values • Solve problems with two unknowns

Vocabulary:	Formulae, linear number sequences, algebraically, equation, unknowns, combinations, variables

Curriculum Overview: Maths
Progression map

Unit: Number: Decimals	**Term:** Spring
National Curriculum	**Progression steps**
- Identify the value of each digit in numbers given to three decimal places - Multiply and divide numbers by 10, 100 and 1000 given 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 specific degrees of accuracy	- Place value within 1 - Place value – integers and decimals - Round decimals - Add and subtract decimals - Multiply by 10, 100 and 1,000 - Divide by 10, 100 and 1,000 - Multiply decimals by integers - Divide decimals by integers - Multiply and divide decimals in context
Unit: Number: Percentages	**Term:** Spring
National Curriculum	**Progression steps**
Recall and use equivalences between simple fractions, decimals and percentages including in different context	- Decimal and fraction equivalent - Fractions as division - Understand percentages - Fractions to percentages - Equivalent fractions, decimals and percentages - Order fractions, decimals and percentages - Percentage of an amount – 1 step - Percentage of an amount – multi-step - Percentages – missing values
Unit: Measurement – Area, Perimeter and Volume	**Term:** Spring

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
• Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calculate the area of parallelograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units	• Shapes with the same area • Area and perimeter • Area of a triangle – counting squares • Area of a right-angled triangle • Area of any triangle • Area of a parallelogram • Volume using cubes • Volume of a cuboid
Vocabulary:	**Parallelograms, triangles, formulae, cubic metre, cubic millimetre, cubic kilometre**

Unit: Number - Statistics	**Term:** Summer
National Curriculum	Progression steps
• Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average	• Line graphs • Dual bar charts • Read and interpret pie charts • Pie charts with percentages • Draw pie charts • Mean
Vocabulary	**Pie chart, mean**

Unit: Geometry – Properties of Shape	**Term:** Summer
National Curriculum	Progression steps

Curriculum Overview: Maths
Progression map

National Curriculum	Progression steps
• 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 • Recognise, describe and build simple 3-D shapes, including making nets • Find unknown angles in any triangles, quadrilaterals and regular polygons • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	• Measure with a protractor • Introduce angles • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – Missing angles • Angles in special quadrilaterals • Angles in regular polygons • Draw shapes accurately • Draw net of 3-D shapes
Vocabulary:	**Radius, diameter, circumference, dimensions**
Unit: Geometry- Position and direction	**Term:** Summer
National Curriculum	**Progression steps**
• 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	• Use co-ordinates in the first quadrant • Use co-ordinates in the 4 quadrants • Reflections • Translations
Vocabulary:	**Four quadrants, co-ordinate plane**