

Curriculum Overview: Maths

Progression map

Nursery

Number

- 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

Numerical Patterns

- 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

- 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

Numerical Patterns

- 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)

Curriculum Overview: Maths

Progression map

- 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

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
- 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

- Sort objects
- Count objects
- Count objects from a larger group
- Represent objects
- Recognise numbers as words
- Count on from any number
- 1 more
- Count backwards within 10
- 1 less
- Compare groups by matching
- Fewer, more, same
- Less than, greater than, equal to
- Compare numbers
- Order objects and numbers
- The number line

Curriculum Overview: Maths

Progression map

<p>Unit: Number – Addition and Subtraction (within 10)</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • 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 $7 = ? - 9$ 	<ul style="list-style-type: none"> • 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
<p>Unit: Geometry - Shape</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> • 2-D shapes [for example, rectangles (including squares), circles and triangles] • 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] 	<ul style="list-style-type: none"> • 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

Curriculum Overview: Maths

Progression map

<p>Unit: Number -Place Value (within 20)</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number • count, 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 	<ul style="list-style-type: none"> • Count forwards and backwards and write numbers to 20 in numerals and words • Numbers from 11 to 20 • Tens and ones • Count one more and one less • Compare groups of objects • Compare numbers • Order groups of objects • Order numbers
<p>Unit: Unit: Number – Addition and Subtraction (within 20)</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • 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 $7 = ? - 9$ 	<ul style="list-style-type: none"> • Add by counting on • Find & make number bonds • Add by making 10 • Subtraction – Not crossing 10 • Subtraction – Crossing 10 • Related facts • Compare number sentences
<p>Unit: Number – Place value (within 50)</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, 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 	<ul style="list-style-type: none"> Numbers to 50 Tens and ones Represent numbers to 50 One more one less Compare objects within 50 Order numbers within 50 Count in 2s Count in 5s
<p>Unit: Measurement – Length and height</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] measure and begin to record the following: <ul style="list-style-type: none"> lengths and heights 	<ul style="list-style-type: none"> Compare lengths and heights Measure lengths
<p>Unit: Measurement – Mass and volume</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> 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] 	<ul style="list-style-type: none"> Introduce weight and mass Measure mass Compare mass Introduce capacity and volume Measure capacity

Curriculum Overview: Maths

Progression map

	<ul style="list-style-type: none"> • Compare capacity
Unit: Number – Multiplication and division	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher 	<ul style="list-style-type: none"> • Count in 10s • Make equal groups • Add equal groups • Make arrays • Make doubles • Make equal groups – grouping • Make equal groups - sharing
Unit: Number - Fractions	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Find a half • Find a quarter
Unit: Geometry – Position and direction	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • describe position, direction and movement, including whole, half, quarter and three-quarter turns 	<ul style="list-style-type: none"> • Describe turns • Describe position

Curriculum Overview: Maths

Progression map

Unit: Number – Place value (within 100)	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, 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 	<ul style="list-style-type: none"> Counting forwards and backwards within 100 Partitioning numbers Comparing numbers Ordering numbers One more one less
Unit: Measurement - Money	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> recognise and know the value of different denominations of coins and notes 	<ul style="list-style-type: none"> Recognising coins Recognising notes Counting in coins
Unit: Measurement - Time	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> time [for example, quicker, slower, earlier, later] measure and begin to record the following: <ul style="list-style-type: none"> time (hours, minutes, seconds) 	<ul style="list-style-type: none"> Before and after Dates Time to the hour Time to the half hour

Curriculum Overview: Maths

Progression map

- 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

- Writing time
- Comparing time

Year 2

Unit: Number -Place Value

Term: Autumn

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 in 2s, 5s and 10s
- Count in 3s

Curriculum Overview: Maths

Progression map

Unit: Number – Addition and Subtraction	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> • solve problems with addition and subtraction: <ul style="list-style-type: none"> • using concrete objects and pictorial representations, including those involving numbers, quantities and measures • applying their increasing knowledge of mental and written methods • 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: <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 • 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
Unit: Geometry - Shape	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> • identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line 	<ul style="list-style-type: none"> • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes

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Progression map

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 • Make patterns with 2-D and 3-D shapes
Unit: Measurement - Money	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • find different combinations of coins that equal the same amounts of money • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change 	<ul style="list-style-type: none"> • Count money – pence • Count money- pounds (notes and coins) • Select money • Make the same amount • Compare money • Find the total • Find the difference • Find change • Two-step problems
Unit: Number – Multiplication and division	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers 	<ul style="list-style-type: none"> • Recognise equal groups • Make equal groups • Add equal groups • Multiplication sentences using the X symbol • Multiplication sentences from pictures

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Progression map

<ul style="list-style-type: none"> • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs • 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 	<ul style="list-style-type: none"> • Use arrays • 2 times-table • 5 times-table • 10 times-table • Make equal groups – Sharing • Make equal groups – Grouping • Divide by 2 • Odd and even numbers • Divide by 5 • Divide by 10
<p>Unit: Measurement – Length and height</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$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 $=$ 	<ul style="list-style-type: none"> • Measure length (cm) • Measure length (m) • Compare lengths • Order lengths • Four operations with lengths
<p>Unit: Measurement – Mass, capacity and temperature</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$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 $=$ 	<ul style="list-style-type: none"> • Compare mass • Measure mass in grams • Measure mass in kilograms • Compare volume • Millilitres • Litres

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Progression map

	<ul style="list-style-type: none"> • Temperature
Unit: Statistics	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
Unit: Number - Fractions	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 $\frac{1}{2}$ 	<ul style="list-style-type: none"> • 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 $\frac{1}{2}$ and $\frac{2}{4}$ • Find three quarters • Count in fractions

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Progression map

Unit: Geometry – Position and direction		Term: Summer	
National Curriculum		Progression steps	
<ul style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) 		<ul style="list-style-type: none"> Describe movements Describe turns Describe movement and turns Making patterns with shapes 	
Unit: Measurement – Time		Term: Summer	
National Curriculum		Progression steps	
<ul style="list-style-type: none"> compare and sequence intervals of time tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times know the number of minutes in an hour and the number of hours in a day 		<ul style="list-style-type: none"> 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 	
Year 3			
Unit: Number -Place Value		Term: Autumn	
National Curriculum		Progression steps	

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Progression map

- 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
- Estimate on a number line to 1,000
- Compare numbers to 1,000
- Order numbers to 1,000
- Count in 50s

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
- Spot 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)

Curriculum Overview: Maths

Progression map

	<ul style="list-style-type: none"> • 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
Unit: Number – Multiplication and Division	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
Unit: Number – Multiplication and Division	Term: Spring
National Curriculum	Progression steps

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Comparing statements Related calculations Multiply 2-digits by 1-digit Divide 2-digits by 1-digit Scaling How many ways?
<p>Unit: Measurement – Length and Perimeter</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> Measure length Equivalent lengths – m & cm Equivalent lengths – mm & cm Compare lengths Add lengths Subtract lengths Measure perimeter Calculate perimeter
<p>Unit: Number - Fractions</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 	<ul style="list-style-type: none"> Making the whole Tenths Count in tenths Tenths as decimals

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Fractions on a number line Fractions of a set of objects Equivalent fractions Compare fractions Order fractions Add fractions Subtract fractions
Unit: Measurement – Mass and Capacity	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) 	<ul style="list-style-type: none"> Measure mass Compare mass Add and subtract mass Measure capacity Compare capacity Add and subtract capacity
Unit: Number - Fractions	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 	<ul style="list-style-type: none"> Making the whole Tenths Count in tenths Tenths as decimals

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Fractions on a number line Fractions of a set of objects Equivalent fractions Compare fractions Order fractions Add fractions Subtract fractions
Unit: Measurement – Money	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts 	<ul style="list-style-type: none"> Pounds and pence Convert pounds and pence Add money Subtract money Give change
Unit: Measurement – Time	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and 	<ul style="list-style-type: none"> 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.

Curriculum Overview: Maths

Progression map

<p>hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight</p> <ul style="list-style-type: none"> 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] 	<ul style="list-style-type: none"> 24-hour clock Finding the durations Comparing durations Start and end times Measuring time in seconds
<p>Unit: Geometry - Shape</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> draw 2-D shapes and make 3-D shapes 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 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 	<ul style="list-style-type: none"> Turns and angles Right angles in shapes 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
<p>Unit: Statistics</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Pictograms Bar charts Tables

Curriculum Overview: Maths

Progression map

Year 4

Year 4	
Unit: Number – Place value	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
Unit: Number – Addition and Subtraction	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate 	<ul style="list-style-type: none"> Add and subtract 1s, 10s, 100s and 1000s Add up to two 4-digit numbers – no exchange

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 Checking strategies
<p>Unit: Measure – Area</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> find the area of rectilinear shapes by counting squares 	<ul style="list-style-type: none"> What is area? Counting squares Making Shapes Comparing area
<p>Unit: Number – Multiplication and Division</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> • Divide by 1 and itself • Multiply three numbers
Unit: Number – Multiplication and Division	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Factor pairs • Efficient multiplication • Written methods • Multiply 2-digits by 1 digit • Multiply 3-digits by 1-digit • Divide 2-digits by 1-digit • Divide 3-digit by 1-digit • Correspondence problems • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100
Unit: Measure – Length & Perimeter	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Kilometres • Perimeter on a grid • Perimeter of a rectangle • Perimeter of rectilinear shapes
Unit: Number – Fractions	Term: Spring

Curriculum Overview: Maths

Progression map

National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 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 	<ul style="list-style-type: none"> What is a fraction? Equivalent fractions Fractions greater than 1 Count in fractions Add fractions Add 2 or more fractions Subtract 2 fractions Subtract from whole amounts Calculate fractions of a quantity Problem solving – calculate quantities
Unit: Number – Decimals	Term: Spring & Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> recognise and write decimal equivalents of any number of tenths or hundreds recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ 	<ul style="list-style-type: none"> recognise tenths and hundredths Tenths as decimals Tenths on a place value grid Tenths on a number line

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Divide 1-digit by 10 • Divide 2-digits by 10 • Hundredths • Hundredths as decimals • Hundredths on a place value grid • Divide 1 or 2-digits by 100 • Make a whole • Write decimals • Compare decimals • Order decimals • Round decimals • Halves and quarter
Unit: Measure – Money	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • estimate, compare and calculate different measures, including money in pounds and pence 	<ul style="list-style-type: none"> • Pounds and pence • Ordering money • Estimating money • Four operations
Unit: Measure - Time	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Hours, minutes and seconds • Years, months, weeks and days • Analogue to digital – 12 hour • Analogue to digital – 24 hour
Unit: Geometry - Shape	Term: Summer

Curriculum Overview: Maths

Progression map

National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Identify angles Compare and order angles Triangles Quadrilaterals Lines of symmetry Complete a symmetric figure
Unit: Statistics	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Interpret charts Comparison, sum and difference Introducing line graphs Line graphs
Unit: Geometry – Position & Direction	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Describe a position Draw on a grid Move on a grid Describe movement on a grid

Curriculum Overview: Maths

Progression map

Year 5

Year 5	
Unit: Number – Place value	Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
Unit: Number – Addition & subtraction	<ul style="list-style-type: none"> Term: Autumn
National Curriculum	Progression steps
<ul style="list-style-type: none"> Add and subtract whole numbers with more than 4 digits, using the formal written methods 	<ul style="list-style-type: none"> Mental Strategies Add whole numbers with more than 4 digits (column method) Subtract whole numbers with more than 4 digits (column method)

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • Add and subtract numbers mentally with increasingly large numbers • 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 	<ul style="list-style-type: none"> • Round to check answers • Inverse operations • Multi-step addition and subtraction problems • Compare calculations • Find Missing numbers
<p>Unit: Number – Multiplication and division</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
<p>Unit: Number: Fractions</p>	<p>Term: Autumn</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths 	<ul style="list-style-type: none"> • Equivalent Fractions to unit fractions • Equivalent fractions to non-unit fractions • Recognise equivalent fractions • Improper fractions to mixed numbers

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
<p>Unit: Number: Multiplication and division</p>	<p>Term: Spring</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Multiply 4-digits by 1-digit • Multiply 2-digits (grid) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digits by 2-digits • Divide 4-digits by 1-digit • Divide with remainders
<p>Unit: Number: Fractions</p>	<p>Term: Spring</p>

Curriculum Overview: Maths

Progression map

National Curriculum	Progression steps
<ul style="list-style-type: none"> Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number 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 	<ul style="list-style-type: none"> Multiply unit fractions by an integer Multiply non-unit fractions by an integer Multiply mixed numbers by integers Fraction of an amount Using fractions as operators
Unit: Number – Decimals & Percentages	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 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 $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 	<ul style="list-style-type: none"> Decimals up to 2 decimal places Decimals as fractions Understand thousandths Thousandths as decimals Rounding decimals Order and compare decimals Understand percentages Percentages as fractions and decimals Equivalent fractions, decimals and percentages.

Curriculum Overview: Maths

Progression map

Unit: Measurement – Perimeter and area	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Measure perimeter • Calculate perimeter • Area of rectangles • Area of compound shapes • Area of irregular shapes.
Unit: Statistics	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • Complete, read and interpret information in tables, including timetables • Solve comparison, sum and difference problems using information presented in a line graph • Interpret and construct pie charts and line graphs and use these to solve problems 	<ul style="list-style-type: none"> • Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Read and interpret tables • Two-way tables • Timetables • Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems
Unit: Geometry – Properties of Shape	Term: Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • Draw 2-D shapes using given dimensions and angles 	<ul style="list-style-type: none"> • Measure angles in degrees • Measure with a protractor

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
<p>Unit: Geometry – Position & Direction</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed 	<ul style="list-style-type: none"> • Position in the first quadrant • Translation • Translation with coordinates • Reflection • Reflection with coordinates
<p>Unit: Number – Decimals</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • solve problems involving number up to 3 decimal places 	<ul style="list-style-type: none"> • 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
Number – Negative numbers	Term - Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 • solve number problems and practical problems that involve all of the above 	<ul style="list-style-type: none"> • Negative numbers
Measure – Converting units	Term - Summer
National Curriculum	Progression steps
<ul style="list-style-type: none"> • convert between different units of measure [for example, kilometre to metre; hour to minute] 	<ul style="list-style-type: none"> • Kilograms and kilometres • Millimetres and millilitres • Metric units • Imperial units • Converting units of time • Timetables
Unit: Volume	Term: Summer
National Curriculum	Progression steps

Curriculum Overview: Maths

Progression map

- 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

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

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

- Add and subtract integers
- Common Factors
- Common Multiples
- Rules of divisibility

Curriculum Overview: Maths

Progression map

- 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
- 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

- Prime numbers to 100
- Square and cube numbers
- Multiply a 4-digit number by and 2-digit number
- Solve problems with multiplication
- 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

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

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, using decimal notation 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 	<ul style="list-style-type: none"> • Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial Measures
Unit: Number - Ratio	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> • Solve problems involving the relative sizes of two quantities where missing values can be found by integer multiplication and division facts 	<ul style="list-style-type: none"> • Use ratio language • Ratios and fractions • Introducing the ratio symbol • Calculating ratio

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Using scale factors Calculating scale factors
Unit: Number: Algebra	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables 	<ul style="list-style-type: none"> Find a rule with 1 step Find a rule with 2 steps Forming expressions Substitution Formulae Forming Questions Solve simple one-step equations Solve two-step equations Find pairs of values Enumerate possibilities
Unit: Number: Decimals	Term: Spring
National Curriculum	Progression steps
<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Identify the value of numbers with 3 decimal places Multiply decimal numbers by 10, 100 or 1000 Divide decimal numbers by 10,100 or 1000 Multiply decimal numbers by integers Divide decimals by integers Decimals as fractions

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Fractions to decimals
<p style="text-align: center;">Unit: Number: Percentages</p>	<p style="text-align: center;">Term: Spring</p>
<p style="text-align: center;">National Curriculum</p>	<p style="text-align: center;">Progression steps</p>
<ul style="list-style-type: none"> • Recall and use equivalences between simple fractions, decimals and percentages including in different context 	<ul style="list-style-type: none"> • Fractions to percentages • Equivalent fractions, decimals and percentages • Percentages of an amount • Percentages – Missing values
<p style="text-align: center;">Unit: Measurement – Area, Perimeter and Volume</p>	<p style="text-align: center;">Term: Spring</p>
<p style="text-align: center;">National Curriculum</p>	<p style="text-align: center;">Progression steps</p>
<ul style="list-style-type: none"> • Recognise that shapes with the same areas can have different perimeters and vice versa • Recognise when it is possible to use formulae for area and volume of shapes • Calculate the area of parallelograms and triangles • Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres, and extending to other units 	<ul style="list-style-type: none"> • Shapes with the same area • Area and perimeter • Area of a triangle • Area of a parallelogram • Volume • Volume using cubes • Volume of a cuboid
<p style="text-align: center;">Unit: Number - Statistics</p>	<p style="text-align: center;">Term: Summer</p>
<p style="text-align: center;">National Curriculum</p>	<p style="text-align: center;">Progression steps</p>

Curriculum Overview: Maths

Progression map

<ul style="list-style-type: none"> • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average 	<ul style="list-style-type: none"> • Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Parts of circles • Read and interpret pie charts • Pie charts with percentages • Draw pie charts • Mean
<p>Unit: Geometry – Properties of Shape</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>
<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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
<p>Unit: Geometry- Position and direction</p>	<p>Term: Summer</p>
<p>National Curriculum</p>	<p>Progression steps</p>

Curriculum Overview: Maths

Progression map

- 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