



Year 11 Maths - Curriculum Map

	11 Ash	11 Birch	11 Cedar
Autumn 1	<p>Number</p> <ul style="list-style-type: none"> Count, read, write, order and compare numbers up to 1000 Add and subtract using three digit whole numbers Divide three digit whole numbers by single and double digit whole numbers and express remainders Multiply two digit whole numbers by single and double digit whole numbers <p>Number</p> <ul style="list-style-type: none"> Read, write, order and compare large numbers (up to 1 million) Recognise and use positive and negative integers Multiply and divide whole numbers and decimals by 10, 100, 1000 Use multiplication facts and make connections with division facts Use simple formulae expressed in words for one or two-step operations Calculate the squares of one-digit and two-digit numbers Follow the order of precedence of operators <p>Number</p> <ul style="list-style-type: none"> Read, write, order and compare positive and negative numbers of any size Carry out calculations with numbers up to one million including strategies to check answers including estimation and approximation Evaluate expressions and make substitutions in given formulae in words and symbols Identify and know the equivalence between fractions, decimals and percentages Work out percentages of amounts and express one amount as a percentage of another 	<p>Number</p> <ul style="list-style-type: none"> Count reliably up to 100 items Read, write, order and compare numbers up to 200 Recognise and sequence odd and even numbers up to 100 Recognise and interpret the symbols appropriately Add and subtract two digit numbers <p>Number</p> <ul style="list-style-type: none"> Count, read, write, order and compare numbers up to 1000 Add and subtract using three digit whole numbers Divide three digit whole numbers by single and double digit whole numbers and express remainders Multiply two digit whole numbers by single and double digit whole numbers <p>Number</p> <ul style="list-style-type: none"> Read, write, order and compare large numbers (up to 1 million) Recognise and use positive and negative integers Multiply and divide whole numbers and decimals by 10, 100, 1000 Use multiplication facts and make connections with division facts Use simple formulae expressed in words for one or two-step operations Calculate the squares of one-digit and two-digit numbers Follow the order of precedence of operators 	<p>Number</p> <ul style="list-style-type: none"> Read, write, order and compare numbers up to 20 Use whole numbers to count up to 20 items including zero Add numbers which total up to 20 <p>Number</p> <ul style="list-style-type: none"> Count reliably up to 100 items Read, write, order and compare numbers up to 200 Recognise and sequence odd and even numbers up to 100 Recognise and interpret the symbols appropriately Add and subtract two digit numbers <p>Number</p> <ul style="list-style-type: none"> Count, read, write, order and compare numbers up to 1000 Add and subtract using three digit whole numbers Divide three digit whole numbers by single and double digit whole numbers and express remainders Multiply two digit whole numbers by single and double digit whole numbers

Year 11 Maths - Curriculum Map

Autumn 2	Number	Number	Number
	<ul style="list-style-type: none"> Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results Recognise and continue linear sequences of numbers up to 100 Read, write and understand thirds, quarters, fifths and tenths, including equivalent forms Read, write and use decimals up to two decimal places <p>Recognise and continue sequences that involve decimals</p>	<ul style="list-style-type: none"> Multiply whole numbers in the range 0×0 to 12×12 Know the number of hours in a day and weeks in a year; be able to name and sequence Divide two digit whole numbers by single digit whole numbers and express remainders Approximate by rounding to the nearest 10, and use this rounded answer to check results 	<ul style="list-style-type: none"> Subtract numbers from numbers up to 20 Recognise and interpret the symbols $+$, $-$ and $=$ appropriately
	Number	Number	Number
<ul style="list-style-type: none"> Read, write, order and compare common fractions and mixed numbers Find fractions of whole number quantities or measurements Read, write, order and compare decimals up to three decimal places Add, subtract, multiply and divide decimals up to two decimal places Approximate by rounding to a whole number or to one or two decimal places 	<ul style="list-style-type: none"> Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results Recognise and continue linear sequences of numbers up to 100 Read, write and understand thirds, quarters, fifths and tenths, including equivalent forms Read, write and use decimals up to two decimal places Recognise and continue sequences that involve decimals 	<ul style="list-style-type: none"> Multiply whole numbers in the range 0×0 to 12×12 Know the number of hours in a day and weeks in a year; be able to name and sequence Divide two digit whole numbers by single digit whole numbers and express remainders Approximate by rounding to the nearest 10, and use this rounded answer to check results 	
Number	Number	Number	Number
<ul style="list-style-type: none"> Calculate percentage change (any size increase and decrease) and original value after percentage change Order, add, subtract and compare amounts or quantities using proper and improper fractions and mixed numbers Express one number as a fraction of another Order, approximate and compare decimals Add, subtract, multiply and divide decimals up to three decimal places 	<ul style="list-style-type: none"> Read, write, order and compare common fractions and mixed numbers Find fractions of whole number quantities or measurements Read, write, order and compare decimals up to three decimal places Add, subtract, multiply and divide decimals up to two decimal places Approximate by rounding to a whole number or to one or two decimal places 	<ul style="list-style-type: none"> Approximate by rounding numbers less than 1000 to the nearest 10 or 100 and use this rounded answer to check results Recognise and continue linear sequences of numbers up to 100 Read, write and understand thirds, quarters, fifths and tenths, including equivalent forms Read, write and use decimals up to two decimal places Recognise and continue sequences that involve decimals 	<ul style="list-style-type: none"> Multiply whole numbers in the range 0×0 to 12×12 Know the number of hours in a day and weeks in a year; be able to name and sequence Divide two digit whole numbers by single digit whole numbers and express remainders Approximate by rounding to the nearest 10, and use this rounded answer to check results

Year 11 Maths - Curriculum Map

Spring 1	Measures	Measures	Measures
	<ul style="list-style-type: none"> • Calculate with money using decimal notation and express money correctly in writing in pounds and pence • Round amounts of money to the nearest £1 or 10p • Read, measure and record time using am and pm <p style="text-align: center; color: green;">Read time from analogue and 24 hour digital clocks in hours and minutes</p>	<ul style="list-style-type: none"> • Recognise coins and notes and write them in numbers with the correct symbols, where these involve numbers up to 20 • Read 12 hour digital and analogue clocks in hours • To know the number of days in a week, month and seasons in a year; be able to name and sequence • Describe and make comparisons in words between measures of items including size, length, width and height • Describe and make comparisons in words between measures of items including weight and capacity 	<ul style="list-style-type: none"> • Recognise coins and notes and write them in numbers with the correct symbols, where these involve numbers up to 20 • Read 12 hour digital and analogue clocks in hours • To know the number of days in a week, month and seasons in a year; be able to name and sequence • Describe and make comparisons in words between measures of items including size, length, width and height • Describe and make comparisons in words between measures of items including weight and capacity
	Number	Numbers	Numbers
<ul style="list-style-type: none"> • Read, write, order and compare percentages in whole numbers • Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof • Estimate answers to calculations using fractions and decimals • Recognise and calculate equivalences between common fractions, percentages and decimals • Work with simple ratio and direct proportions 	<ul style="list-style-type: none"> • Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes • Read, write and use decimals to one decimal place 	<ul style="list-style-type: none"> • Recognise simple fractions (halves, quarters and tenths) of whole numbers and shapes • Read, write and use decimals to one decimal place 	
Number	Measures	Measures	
<ul style="list-style-type: none"> • Understand and calculate using ratios, direct proportion and inverse proportion • Follow the order of precedence of operators, including indices 	<ul style="list-style-type: none"> • Calculate money with pence up to one pound and in whole pounds of multiple items and write with the correct symbols • Read and record time in common date formats and read times displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24 hour digital clock 	<ul style="list-style-type: none"> • Calculate money with pence up to one pound and in whole pounds of multiple items and write with the correct symbols • Read and record time in common date formats and read times displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24 hour digital clock 	
Measures	Measures	Measures	
<ul style="list-style-type: none"> • Calculate amounts of money, compound interest, percentage increases, decreases and discounts including tax and simple budgeting • Convert between metric and imperial units of length, weight and capacity using a) a conversion factor and b) a conversion graph • Calculate using compound measures including speed, density and rates of pay 	<ul style="list-style-type: none"> • Calculate with money using decimal notation and express money correctly in writing in pounds and pence • Round amounts of money to the nearest £1 or 10p • Read, measure and record time using am and pm • Read time from analogue and 24 hour digital clocks in hours and minutes 	<ul style="list-style-type: none"> • Calculate with money using decimal notation and express money correctly in writing in pounds and pence • Round amounts of money to the nearest £1 or 10p • Read, measure and record time using am and pm • Read time from analogue and 24 hour digital clocks in hours and minutes 	

Year 11 Maths - Curriculum Map

Spring 2	Measures	Measures	Measures
	<ul style="list-style-type: none"> • Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division • Compare metric measures of length, including millilitres, centimetres, metres and kilometres • Compare measures of capacity, including millilitres and litres • Use a suitable instrument to measure mass and length 	<ul style="list-style-type: none"> • Read and record time in common date formats and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24 hour digital clock • Use metric measures of length, including millimetres, centimetres, metres and kilometres • Use measures of weight, including grams and kilograms • Use measures of capacity, including millilitres and litres 	<ul style="list-style-type: none"> • Identify and recognise 2D and 3D shapes, including circle, cube, rectangle, square and triangle • Use everyday positional vocabulary to describe position and direction, including left, right, in front, behind, under and above
	Measures	Measures	Measures
<ul style="list-style-type: none"> • Calculate simple interest in multiples of 5% on amounts of money • Calculate discounts in multiples of 5% on amounts of money • Convert between units of length, weight, capacity, money and time, in the same system • Recognise and make use of simple scales on maps and drawings 	<ul style="list-style-type: none"> • Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division • Compare metric measures of length, including millilitres, centimetres, metres and kilometres • Compare measures of capacity, including millilitres and litres • Use a suitable instrument to measure mass and length 	<ul style="list-style-type: none"> • Read and record time in common date formats and read time displayed on analogue clocks in hours, half hours and quarter hours, and understand hours from a 24 hour digital clock • Use metric measures of length, including millimetres, centimetres, metres and kilograms • Use measures of weight, including grams and kilograms • Use measures of capacity, including millilitres and litres 	
Measures	Measures	Measures	Measures
<ul style="list-style-type: none"> • Calculate perimeters and areas of 2D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given expect for triangles and circles) • Use formulae to find volumes and surface areas of 3D shapes including cylinders (formulae to be given for 3D shapes other than cylinders) • Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements • Use co-ordinates in 2D, positive and negative, to specify the positions of points • Understand and use common 2D representations of 3D objects 	<ul style="list-style-type: none"> • Calculate simple interest in multiples of 5% on amounts of money • Calculate discounts in multiples of 5% on amounts of money • Convert between units of length, weight, capacity, money and time, in the same system • Recognise and make use of simple scales on maps and drawings 	<ul style="list-style-type: none"> • Use and compare measures of length, capacity, weight and temperature using metric or imperial units to the nearest labelled or unlabelled division • Compare metric measures of length, including millilitres, centimetres, metres and kilometres • Compare measures of capacity, including millilitres and litres • Use a suitable instrument to measure mass and length 	

Year 11 Maths - Curriculum Map

Summer 1

Measures

- Sort 2D and 3D shapes using properties, including lines of symmetry, length, right angles, angles, including in rectangles and triangles
- Use appropriate positional vocabulary to describe position and direction, including eight compass points and full/half/ quarter turns

Data

- Extract information from lists, tables, diagrams and charts and create frequency tables
- Interpret information to make comparisons and record changes, from different formats, including bar charts and simple line graphs

Measures

- Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles
- Calculate the volume of cubes and cuboids
- Draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles
- Interpret plans, elevations and nets of simple 3D shapes
- Use angles when describing position and direction, and measure angles in degrees

Measures

- Draw 3D shapes to include plans and elevations
- Calculate values of angles and/or coordinates with 2D and 3D shapes

Data

- Calculate the median and mode of a set of quantities
- Estimate the mean of a grouped frequency distribution from discrete data
- Use the mean, median, mode and range to compare two sets of data

Measures

- Read and compare positive temperatures
- Read and use simple scales to the nearest labelled division
- Recognise and name 2D and 3D shapes, including pentagons, hexagons, cylinders, cuboids, pyramids and spheres.
- Describe the properties of common 2D and 3D shapes, including numbers of sides, corners, edges, faces, angles and base
- Use appropriate positional vocabulary to describe position and direction, including between, inside, outside, middle, below, on top, forwards and backwards

Measures

- Sort 2D and 3D shapes using properties, including lines of symmetry, length, right angles, angles, including in rectangles and triangles
- Use appropriate positional vocabulary to describe position and direction, including eight compass points and full/half/ quarter turns

Data

- Extract information from lists, tables, diagrams and charts and create frequency tables
- Interpret information to make comparisons and record changes, from different formats, including bar charts and simple line graphs

Measures

- Calculate the area and perimeter of simple shapes including those that are made up of a combination of rectangles
- Calculate the volume of cubes and cuboids
- Draw 2D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles
- Interpret plans, elevations and nets of simple 3D shapes
- Use angles when describing position and direction, and measure angles in degrees

Data

- Read numerical information from lists
- Sort and classify objects using a single criterion

Measures

- Read and compare positive temperatures
- Read and use simple scales to the nearest labelled division
- Recognise and name 2D and 3D shapes, including pentagons, hexagons, cylinders, cuboids, pyramids and spheres.
- Describe the properties of common 2D and 3D shapes, including numbers of sides, corners, edges, faces, angles and base
- Use appropriate positional vocabulary to describe position and direction, including between, inside, outside, middle, below, on top, forwards and backwards

Measures

- Sort 2D and 3D shapes using properties, including lines of symmetry, length, right angles, angles, including in rectangles and triangles
- Use appropriate positional vocabulary to describe position and direction, including eight compass points and full/half/ quarter turns

Data

- Extract information from lists, tables, diagrams and charts and create frequency tables
- Interpret information to make comparisons and record changes, from different formats, including bar charts and simple line graphs

Year 11 Maths - Curriculum Map

Summer 2	Data	Data	Data
	<ul style="list-style-type: none"> Organise and represent information in appropriate ways, including tables, diagrams, simple line graphs and bar charts 	<ul style="list-style-type: none"> Extract information from lists, tables, diagrams and bar charts Make numerical comparisons from bar charts Sort and classify objects using two criteria Take information from one format and represent the information in another format, including use of bar charts 	<ul style="list-style-type: none"> Read and draw simple charts and diagrams, including a tally chart, block diagram/graph
	Data	Data	Data
<ul style="list-style-type: none"> Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs Group discrete data and represent grouped data graphically Find the mean and range of a set of quantities Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events Use equally likely outcomes to find the probabilities of simple events and express them as fractions 	<ul style="list-style-type: none"> Organise and represent information in appropriate ways, including tables, diagrams, simple line graphs and bar charts 	<ul style="list-style-type: none"> Extract information from lists, tables, diagrams and bar charts Make numerical comparisons from bar charts Sort and classify objects using two criteria Take information from one format and represent the information in another format, including use of bar charts 	
Measures	Data	Data	
<ul style="list-style-type: none"> Work out the probability of combined events including the use of diagrams and tables, including two-way tables Express probabilities as fractions, decimals and percentages Draw and interpret scatter diagrams and recognise positive and negative correlation 	<ul style="list-style-type: none"> Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs Group discrete data and represent grouped data graphically Find the mean and range of a set of quantities Understand probability on a scale from 0 (impossible) to 1 (certain) and use probabilities to compare the likelihood of events Use equally likely outcomes to find the probabilities of simple events and express them as fractions 	<ul style="list-style-type: none"> Organise and represent information in appropriate ways, including tables, diagrams, simple line graphs and bar charts 	