Maths

*'Inspiring **G R E A T** ness!'*

QUEENSCROFT

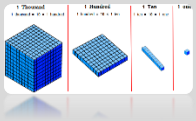
Curriculum area	Designed by	Version
Maths	Philippa Gregory	7

Our curriculum is GREAT! *(INTENT)*

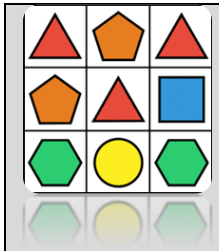
Goals	At Queen's Croft High School, our aim is to prepare our learners to be as confident and independent in life by giving them the skills in maths they will need to help them manage everyday situations. Our goal is to create an engaging, stimulating environment for pupils to enable them to become excellent mathematicians. We strive for every child to become confident in using all four operations and for them to be confident answering questions and problem solving and apply this in their everyday lives. We strive to give pupils opportunities and experience of using concrete materials and pictorial representations before tackling more abstract concepts surrounding the subject.
Readiness	Our curriculum takes processes in maths and segments them into small easily digestible chunks for pupils to have a clear understanding. We then build and extend on this knowledge to improve a child's understanding and inquisitiveness. Maths lessons include a range of teacher-led and pupil-led learning, exploring concrete pictorial and abstract representations. Pupils are taught to identify key words in worded problems to enable them to have confidence working towards either an Entry Level/GCSE qualification and using this skill to support them in their everyday lives.
Education	Pupils following the Explore pathway develop skills using concrete, pictorial and abstract representations. Pupils will learn how to model, count, read and write numbers to 20. They will explore shape, pattern, space and time by taking part in short meaningful activities focused on personalised learning. Pupils following the Extend pathway are encouraged to use concrete, pictorial and abstract methods to become confident answering questions involving all four operations. Lessons involve pupils learning how to model, building on previous knowledge and gaining confidence to be able to complete work independently. Pupils following the Excel pathway are encouraged to model and use correct methods to be able to answer questions involving all four operations. Pupils are supported in remembering previous learning by answering questions from past topics. Once learning has be scaffolded, pupils take part in independent activities building on the skills that have been learnt.

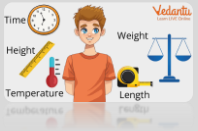
Achievement	Pupils working towards gaining an Entry Level 1,2 or 3 qualification will be confident answering word problems. Pupils number fluency and vocabulary will be developed through use of regular reasoning challenges. Pupils develop their skills and apply it to the wider world in order for them to further develop as a person and understand how it can be used in their everyday lives. Pupils working towards gaining a GCSE qualification will be taught how to model and answer questions involving all four operations. They will build on previous knowledge and modelling skills to enable them to have confidence when answering a range of different word problems. In maths, we measure achievement through: regular learning walks, termly assessments, end of topic tests, photo records of pupils' practical work, regular conversation between staff, engagement in the curriculum and book trawls to assess progress and next steps.
Talent	As a school during November, pupils take part in 'Barvemeber'. This encourages pupils to use bar models, building on previous learning to enable them to be confident when answering questions to a range of different word problems. Having strong multiplication and division fact knowledge is important to become a successful mathematician. Pupils take part in termly County tournaments playing fun and interactive online games while building on their own fluency, confidence and understanding. Pupils are encouraged to attend a selection of different lunch time clubs where they can explore maths they enjoy. During Great Fridays, pupils take part in an escape room using maths and social skills in order to solve problems. Students have opportunities to be part of an enterprise group where they learn how to budget, plan, make and sell a product to understand how to run a small business. They will use any profit to develop and plan for future enterprise projects and to support the costs of rewards and trips.

Education Pathways- Key Stage 3 & 4

	Education Goals ***Explore Pathway***	**Education Goals** ***Extend Pathway***	**Education Goals** ***Excel Pathway***
Year 7			
Autumn 1  	**<u>Number: Place Value</u>** ▪ Count to 10 and beyond, forwards and backwards, beginning with 0 or 1, or from any given number ▪ Count, read and write numbers to 10 and beyond in numerals and words. ▪ Given a number, identify one more and one 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 ▪ Count to 20 and beyond, forwards and backwards, beginning with 0 or 1, or from any given number ▪ Count, read and write numbers to 20 and beyond in numerals ▪ Given a number identify one more and one less to 20 and beyond	**<u>Number: Place Value</u>** ▪ Read and write numbers to 100 and beyond in numerals and in words. ▪ Identify, represent and estimate numbers using different representations (for example base ten, part whole model, place value charts and number line). ▪ Count in tens from any number, forwards and backwards ▪ Recognise the place value of each digit in a 2-digit number (tens, ones) ▪ Compare and order numbers to 100 and beyond; use <, > and = signs ▪ Use place value and number facts to solve problems **<u>Number: Addition and subtraction</u>** ▪ Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100 and beyond. ▪ Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s, a	**<u>Number: Place Value</u>** ▪ Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit ▪ Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 ▪ Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 ▪ Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero ▪ Solve number problems and practical problems that involve all of the above ▪ Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

	▪ 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 **Number: Addition and subtraction** ▪ Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs ▪ Represent and use number bonds and related subtraction facts within 10 and beyond ▪ Add and subtract one digit and two-digit numbers to 20 and beyond, including zero ▪ Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = - 9.	2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers. ▪ 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. ▪ Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. ▪ Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	**Number: Addition and subtraction** ▪ Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) ▪ Add and subtract numbers mentally with increasingly large numbers ▪ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy ▪ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
Autumn 2 	**Geometry: Shape** ▪ 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] (Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other).	**Geometry: Shape** ▪ 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.	**Geometry** ▪ Identify 3-D shapes, including cubes and other cuboids, from 2-D representations ▪ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles ▪ Draw given angles, and measure them in degrees (°) ▪ Identify: -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and ½ a turn (total 180°) -other multiples of 90°

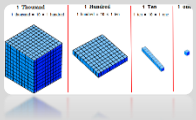
	**Measurement: Length and Height** ▪ Compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]. ▪ Measure and begin to record lengths and height (Pupils move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous, to using manageable common standard units).	**Measurement: length and height** ▪ Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit using rulers and measuring vessels ▪ Compare and order lengths and record the results using >, < and =	-Use the properties of rectangles to deduce related facts and find missing lengths and angles -Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. **Geometry – Position and direction** ▪ 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. (Pupils recognise and use reflection and translation in a variety of diagrams, including continuing to use a 2-D grid and coordinates in the first quadrant. Reflection should be in lines that are parallel to the axes).
Spring 1 	**Number: Multiplication and division** ▪ Count in multiples of 2's, 5's and 10's ▪ Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support (Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities). (They make connections between arrays, number patterns, and counting in 2s, 5s and 10s).	**Number: Multiplication and division** ▪ Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward ▪ 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. ▪ show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot ▪ solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication	**Number: Multiplication and division** ▪ Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers ▪ Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers ▪ Establish whether a number up to 100 is prime and recall prime numbers up to 19 ▪ 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

		and division facts, including problems in contexts.	short division and interpret remainders appropriately for the context ▪ Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 ▪ recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3}) ▪ Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes ▪ Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
Spring 2 	**<u>Measurement: Weight and volume</u>** ▪ Compare, describe and solve practical problems for capacity/volume (capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ▪ Measure and begin to record mass and capacity. (The pairs of terms: mass and weight, volume and capacity, are used interchangeably at this stage). **<u>Measurement: Money</u>** ▪ Recognise and know the value of different denominations of coins and notes.	**<u>Measurement: Mass, capacity and temperature</u>** ▪ Choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using scales, thermometers and measuring vessels ▪ Compare and order mass, volume/capacity and record the results using >, < and = **<u>Measurement: Money</u>** ▪ 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.	**<u>Measurements –Perimeter and area</u>** ▪ Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes **<u>Measurement: Converting units and volume</u>** ▪ Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and

	▪ Use knowledge of coins in social situations and games	▪ Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	millimetre; gram and kilogram; litre and millilitre) ▪ Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints ▪ Estimate volume [for example, using 1 cm 3 blocks to build cuboids (including cubes)] and capacity [for example, using water] Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
Summer 1 	**<u>Number: Fractions</u>** ▪ Recognise, find and name a half as one of two equal parts of an object, shape or quantity. ▪ Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. (Pupils connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole). **<u>Measurement: Time</u>** ▪ 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	**<u>Number: Fractions</u>** ▪ Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity ▪ Write simple fractions, for example 1/2 of 6 = 3 ▪ Recognise the equivalence of 2/4 and ½. (Pupils should count in fractions up to 10, starting from any number and using the 1/2 and 2/4 equivalence on the number line for example, 1 1/4 , 1 2/4 (or 1 1/2), 1 3/4 , 2). This reinforces the concept of fractions as numbers and that they can add up to more than 1). **<u>Measurement: Time</u>** ▪ 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	**<u>Number: Fractions</u>** ▪ Compare and order fractions whose denominators are all multiples of the same number ▪ 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 ▪ Add and subtract fractions with the same denominator and denominators that are multiples of the same number ▪ Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams

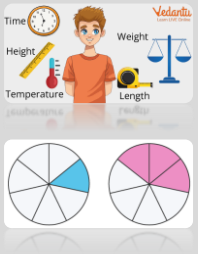
	▪ Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. ▪ Measure and begin to record time (hours, minutes, seconds) Compare, describe and solve practical problems for: time [for example, quicker, slower, earlier, later]		
Summer 2 	**<u>Geometry: Position and direction</u>** ▪ Describe position, direction and movement, including whole, half, quarter and three-quarter turns. (in both directions and connect turning clockwise with movement on a clock face). ▪ Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside. **<u>Statistics</u>** ▪ Sort and classify objects using more than one criterion ▪ Collect information by survey ▪ Interpret simple tables, diagrams, lists and graphs ▪ Record results in lists, tally charts and tables ▪ Construct and interpret pictograms where one picture represents one item	**<u>Geometry: position and direction</u>** ▪ 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 anticlockwise). (Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots using instructions given in right angles). **<u>Statistics</u>** ▪ Interpret and construct simple pictograms, tally charts, block diagrams and simple tables ▪ Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ▪ Ask and answer questions about totalling and comparing categorical data. ▪	**<u>Statistics</u>** ▪ Solve comparison, sum and difference problems using information presented in a line graph. ▪ Complete, read and interpret information in tables, including timetables. (Pupils connect their work on coordinates and scales to their interpretation of time graphs. They begin to decide which representations of data are most appropriate and why).

		(Pupils record, interpret, collate, organise and compare information (for example, using many-to-one correspondence in pictograms with simple ratios 2, 5,10).	

	Education Goals ***Explore Pathway***	**Education Goals** ***Extend Pathway***	**Education Goals** ***Excel Pathway***
Year 8			
Autumn 1 	**<u>Number: Place Value</u>** ▪ Show confidence in counting to 10 and beyond, forwards and backwards, beginning with 0 or 1, or from any given number ▪ Show skills in counting, reading and writing numbers to 10 and beyond in numerals and words and can identify one more and one less. ▪ Shows how to 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 ▪ Show confidence in counting to 20 and beyond, forwards and backwards, beginning with 0 or 1, or from any given number ▪ Show skills in reading and writing numbers to 20 and beyond in numerals and demonstrate understanding of one more and one less to 20 and beyond	**<u>Number: place value</u>** ▪ Count from 0 in multiples of 50 and 100; find 10 or 100 more or less than a given number ▪ Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) ▪ Compare and order numbers up to 1000 ▪ Identify, represent and estimate numbers using different representations ▪ Read and write numbers up to 1000 in numerals and in words ▪ Solve number problems and practical problems involving these ideas. **<u>Number: Addition and subtraction</u>** ▪ Add and subtract numbers mentally, including - a 3-digit number and ones - a 3-digit number and tens - a 3-digit number and hundreds.	**<u>Number: Place value</u>** ▪ 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. **<u>Number: Addition and Subtraction</u>** ▪ Perform mental calculations, including with mixed operations and large numbers ▪ Use their knowledge of the order of operations to carry out calculations involving the four operations ▪ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

	▪ Show how to use a number line to 20 and beyond, estimate on a number line to 20 and beyond ▪ Show how to compare and order numbers to 20 and beyond ▪ Within written problems can compare numbers to 20 and beyond **<u>Number: Addition and subtraction</u>** ▪ Reinforce maths skills by using part, wholes and part-whole model using numbers up to 10 and beyond. ▪ Show the ability to use number sentences using numbers up to 10 and beyond ▪ Recall fact families using addition facts to 10 and beyond. ▪ Show fluency in addition and subtraction facts within 10 ▪ Show the location of numbers to 20 within the linear number system, including comparing using < > and = ▪ Recall how to subtract by finding a part, by taking away/crossing out (how many are left), using a number line and by using concrete objects and pictorial representations. ▪ Recall fact families -eight facts.	▪ Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction ▪ Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. ▪ Estimate the answer to a calculation and use inverse operations to check answers	▪ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Autumn 2	**<u>Number: Multiplication and division</u>** ▪ Shows different ways to count (multiples of 2s, 5s and 10s). ▪ Show how to add equal groups ▪ Recall how to make arrays, double and equal groups (grouping and sharing)	**<u>Number: Multiplication and division</u>** ▪ 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	**<u>Number: Multiplication and division</u>** ▪ 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

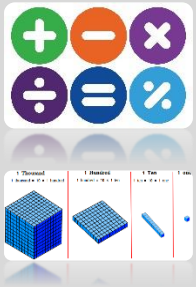
	▪ Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays	numbers, using mental and progressing to formal written methods ▪ Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	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 ▪ Identify common factors, common multiples and prime numbers ▪ Use their knowledge of the order of operations to carry out calculations involving the four operations ▪ Solve problems involving multiplication and division ▪ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Spring 1 	**<u>Measurement: Length and Height</u>** ▪ Show how to compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]. ▪ Applies knowledge of length and height comparisons to conduct mathematical investigations ▪ Use objects to measure and begin to record lengths. Record lengths in cm **<u>Measurement: Weight and volume</u>**	**<u>Measurement: Length and perimeter</u>** ▪ Measure, compare, add and subtract: lengths (m/cm/mm); ▪ Measure the perimeter of simple 2-D shapes **<u>Measurement: Mass and capacity</u>** ▪ Measure, compare, add and subtract mass (kg/g) and volume/capacity (l/ml) (Pupils continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed	**<u>Measure</u>** ▪ 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

	▪ Shows skills in comparing, describing and solving practical problems for capacity/volume (capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ▪ Shows how to measure and begin to record mass and capacity. ▪	units-for example, 1 kg and 200gand simple equivalents of mixed units -for example, 5m = 500cm). The comparison of measures includes simple scaling by integers (for example, a given quantity or measure is twice as long or 5 times as high) and this connects to multiplication.	▪ 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 (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3].
Spring 2  	**<u>Number: Fractions</u>** ▪ Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity Show knowledge of simple fractions, for example 1/2 of 6 = 3 and recognise the equivalence of 2/4 and ½.	**<u>Number: Fractions</u>** • 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 • Compare and order unit fractions, and fractions with the same denominators • Solve problems that involve all of the above.	**<u>Number: Fractions</u>** ▪ Use common factors to simplify fractions; use common multiples to express fractions in the same denomination ▪ Compare and order fractions, including fractions ▪ 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 ▪ Divide proper fractions by whole numbers using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Associate a fraction with division and calculate decimal fraction equivalents **<u>Number: Ratio</u>** ▪ Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts

			▪ Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] 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. ▪
Summer 1 	**<u>Measurement: Money</u>** • Recall the different denominations of coins and notes. ▪ Use skills of counting to count in coins. ▪ Can solve problems involving simple subtraction and addition of coins **<u>Measurement -Time</u>** ▪ Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] ▪ Use language relating to dates, including days of the week, weeks, months and years. ▪ Show how to tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	**<u>Measurement: Money</u>** ▪ Add and subtract amounts of money to give change, using both £ and p in practical contexts (Pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable amounts. They record £ and p separately). **<u>Measurement: Time</u>** ▪ Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks ▪ Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight ▪ Know the number of seconds in a minute and the number of days in each month, year and leap year	**<u>Number: Decimals and percentages</u>** ▪ Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. ▪ Multiply one-digit numbers with up to two decimal places by whole numbers ▪ Use written division methods in cases where the answer has up to two decimal places ▪ Solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ▪ Recall and use equivalences between simple fractions, decimals and percentages, including in different context **<u>Number: Algebra</u>** ▪ Use simple formulae ▪ Generate and describe linear number sequences

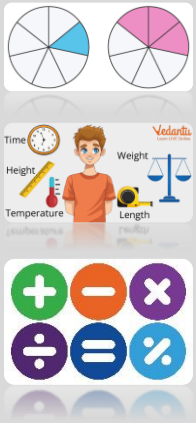
		▪ Compare durations of events [for example to calculate the time taken by particular events or tasks].	▪ Express missing number problems algebraically ▪ Find pairs of numbers that satisfy an equation with two unknowns ▪ Enumerate possibilities of combinations of two variables
Summer 2 	**<u>Geometry: Shape Position and direction</u>** ▪ Consolidate the names for 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]. ▪ Recall position, direction and movement, including whole, half, quarter and three-quarter turns. (in both directions and connect turning clockwise with movement on a clock face). (Pupils handle common 2-D and 3-D shapes, naming these and related everyday objects fluently. They recognise these shapes in different orientations and sizes, and know that rectangles, triangles, cuboids and pyramids are not always similar to each other). **<u>Statistics</u>** ▪ Sort and classify objects using more than one criterion ▪ Collect information by survey ▪ Interpret simple tables, diagrams, lists and graphs ▪ Record results in lists, tally charts and tables	**<u>Geometry</u>** ▪ Draw 2-D shapes and make 3D 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 two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle ▪ Identify horizontal and vertical lines and pairs of perpendicular and parallel lines **<u>Statistics</u>** ▪ Interpret and present data using bar charts, pictograms and tables ▪ Solve multi-step questions using information presented in scaled bar charts and pictograms and tables.	**<u>Geometry: Shape Position & Direction</u>** ▪ Draw 2-D shapes using given dimensions and angles ▪ Recognise, describe and build simple 3-D shapes, including making nets ▪ Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons ▪ Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius ▪ Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. ▪ 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. **<u>Statistics</u>** ▪ Interpret and construct pie charts and line graphs and use these to solve problems ▪ Interpret and present discrete and continuous data using appropriate

	▪ Construct and interpret pictograms where one picture represents one item		graphical methods, including bar charts and time graphs

	Education Goals ***Explore Pathway***	**Education Goals** ***Extend Pathway***	**Education Goals** ***Excel Pathway***
Year 9			
Autumn 1 	**Number: Place Value** ▪ Concrete knowledge of counting forwards and backwards, counting in 2's 5's and 10's and comparing and ordering numbers to 50. ▪ Read and write numbers to 100 and beyond in numerals and in words. ▪ Identify, represent and estimate numbers using different representations (for example base ten, part whole model, place value charts and number line). ▪ 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 2-digit number (tens, ones) ▪ Compare and order numbers to 100 and beyond; use <, > and = signs **Number: Addition and subtraction** ▪ Concrete knowledge of number bonds to 10 and composing numbers to 10 from 2 parts, and partition numbers to 10 into parts,	**Number: Place value** ▪ Count in multiples of 6, 7, 9, 25 and 1000 ▪ Find 1000 more or less than a given number ▪ count backwards through zero to include negative numbers ▪ Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) ▪ Order and compare numbers beyond 1000 ▪ Identify, represent and estimate numbers using different representations ▪ Round any number to the nearest 10, 100 or 1000 ▪ 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 zero and place value. **Number: Addition and subtraction**	**Place value and proportion** ▪ Recognise the place value of any number in an integer up to one billion ▪ Know and write integers up to one billion in words and figures ▪ Work out intervals on a number line ▪ Position integers on a number line ▪ Round integers to the nearest power of ten. ▪ Compare two numbers using =, ≠, <, >, ≤, ≥ ▪ Order a list of integers ▪ Find the range of a set of numbers ▪ Find the median of a set of numbers ▪ Represent tenths and hundredths as diagrams ▪ Represent tenths and hundredths on number line ▪ Know the meaning of percentage using a hundred square ▪ Convert fluently between simple fractions, decimals and percentage ▪ Use and interpret pie charts

	including recognising odd and even numbers. ▪ Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100 and beyond. ▪ Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a 2-digit number and 1s, a 2-digit number and 10s, two 2-digit numbers and adding three 1-digit numbers.	▪ 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.	**Applications of number: Solving problems with addition and subtraction** ▪ Know the properties of addition and subtraction ▪ Use mental strategies for addition and subtraction. ▪ Use formal methods for addition of integers ▪ Use formal methods for addition of decimals ▪ Use formal methods for subtraction of integers ▪ Use formal methods for subtraction of decimals ▪ Solve financial maths problems ▪
Autumn 2 	**Number: Multiplication and division** ▪ Have concrete knowledge in counting forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. ▪ Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. ▪ Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. ▪ show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	**Number: Multiplication and division** ▪ 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 three 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 one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. ▪	**Applications of number: Solving problems with multiplication and division** ▪ Know properties of multiplication & division ▪ Know and use factors ▪ Know and use multiples ▪ Multiply and divide integers and decimals by powers of 1 ▪ Convert metric units ▪ Use formal methods to multiply integers ▪ Use formal methods to multiply decimals ▪ Use formal methods to divide decimals ▪ Understand and use order of operations ▪ Solve problems using the area of rectangles and parallelograms ▪ Solve problems using the area of triangles ▪ Solve problems using the mean **Fractions and Percentages of Amounts** ▪ Find a fraction of a given amount

	▪ solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. ▪		▪ Use a given fraction to find the whole and/or other fractions ▪ Find a percentage of a given amount using mental method ▪ Find a percentage of a given amount using a calculator ▪
Spring 1 	**<u>Measurement: length and height</u>** ▪ Confidently compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] ▪ Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); to the nearest appropriate unit using rulers and measuring vessels ▪ Compare and order lengths and record the results using >, < and = ▪ Order length and heights ▪ Use four operations with lengths and heights **<u>Measurement: Mass, capacity and temperature</u>** ▪ Confidently compare, describe and solve practical problems for: • mass/weight [for example, heavy/light, heavier than, lighter than] ▪ Compare and measure mass in grams and kilograms. ▪ Use four operations with mass ▪ Compare and measure volume and capacity ml and litres ▪ Use four operations with volume and capacity.	**<u>Measurement</u>** ▪ 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 ▪ estimate, compare and calculate different measures, including money in pounds and pence	**<u>Algebraic thinking: Sequences</u>** ▪ Identify and describe sequences ▪ Predict and check next term(s) ▪ Show sequences in a table and graphically. ▪ Know and understand linear and non-linear sequences ▪ Explain the term-to-term rule **<u>Algebraic thinking: Understand and use algebraic notation</u>** ▪ Find the output of a single function machine from a given a numerical input. ▪ Use inverse operations to find the input given the output. ▪ Use diagrams and letters to generalise number operations. ▪ Use diagrams and letters with single function machines. ▪ Find the function machine given a simple expression ▪ Substitute values into single operation expressions Find numerical inputs and outputs for a series of two function machines. **<u>Algebraic thinking: Equality and equivalence</u>**

	▪ Choose and use appropriate standard units to estimate and measure temperature (°C) to the nearest appropriate unit, using thermometers.		▪ Know the meaning of equality ▪ Know and use fact families, numerically and algebraically ▪ Solve one-step linear equations involving +/- using inverse operations ▪ Solve one-step linear equations involving x/÷ using inverse operation ▪ Know the meaning of like and unlike terms ▪ Know the meaning of equivalence
Spring 2 	**<u>Number: Fractions</u>** ▪ Confident in finding and naming a half as one of two equal parts of an object, shape or quantity ▪ Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, and set of objects or quantity	**<u>Fractions</u>** ▪ 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 1/4 , 1/2 , ¾ **<u>Number: Decimals</u>** ▪ 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	**<u>Fractional thinking – adding and subtraction fractions</u>** ▪ Convert between mixed numbers and fractions ▪ Add/Subtract unit fractions (same denominator) ▪ Add/Subtract fractions (same denominator) ▪ Add/Subtract fractions from integers ▪ Use equivalent fractions ▪ Add/Subtract any fractions ▪ Add/Subtract improper fractions and mixed numbers ▪ Use fractions in algebraic contexts **<u>Reasoning with number</u>** **<u>Developing number sense</u>** ▪ Know and use mental addition/ subtraction ▪ Know and use mental multiplication/ division ▪ Know and use mental arithmetic for decimals ▪ Know and use mental arithmetic for fractions ▪ Use factors to simplify calculations

		▪ 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	▪ Use estimation to check mental calculations ▪ Use number facts ▪ Use algebraic facts
Summer 1 	**<u>Measurement: Money</u>** ▪ Confident in recognising and know the value of different denominations of coins and notes ▪ 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. **<u>Measurement: Time</u>** ▪ Concrete knowledge of language relating to dates, including days of the week, weeks, months and years and Tell the time to the hour and half past the hour ▪ Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times. ▪ Know the number of minutes in an hour and the number of hours in a day. ▪	**<u>Measurement: Money and Time</u>** ▪ Estimate, compare and calculate different measures, including money in pounds and pence. ▪ Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days ▪ Read, write and convert time between analogue and digital 12- and 24-hour clocks.	**<u>Reasoning with number- Sets and probability</u>** ▪ Identify and represent sets Interpret and create Venn diagrams ▪ Understand and use the intersection of sets ▪ Understand and use the union of sets ▪ Generate sample spaces for single events ▪ Calculate the probability of a single event ▪ Understand and use the probability scale **<u>Reasoning with number Prime numbers and Proof</u>** ▪ Find and use multiples ▪ Identify factors of numbers and expressions ▪ Recognise and identify prime numbers ▪ Recognise square and triangular numbers ▪ Find common factors including HCF ▪ Find common multiples including LCM ▪

Summer 2	**Geometry: Shape Position and Direction**	**Geometry: Shape Position and Direction**	**Lines and angles- Constructing, measuring and using geometric notation**
	▪ Confident in recognising and naming common 2-D and 3-D shapes ▪ 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]. ▪ Identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line. Compare and sort common 2-D and 3-D shapes and everyday objects. ▪ Concrete knowledge of describing position, direction and movement, including whole, half, quarter and three-quarter turns. ▪ 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 anticlockwise). **Statistics** ▪ Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	▪ 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 two 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. ▪ 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. **Statistics** ▪ Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	▪ Use letter and labelling conventions ▪ Draw and measure line segments and angles ▪ Identify parallel and perpendicular lines ▪ Recognise types of triangle ▪ Recognise types of quadrilateral ▪ Identify polygons ▪ Construct triangles (SAS, SSS, ASA) Draw Pie charts **Lines and angles-geometric reasoning** ▪ Draw and measure line segments including geometric figures ▪ Know that angles are a measure of turn. ▪ Classify angles ▪ Measure angles up to 180° ▪ Draw angles up to 180° ▪ Draw and measure angles between 180° and 360°. ▪ Identify perpendicular and parallel lines ▪ Recognise types of triangle ▪ Recognise types of quadrilaterals

	▪ Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity		

	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** ***(Entry 2 and 3)***
Year 10		
Autumn 1 	**<u>Number</u>** Recall previous number facts and apply them in a variety of ways including problem solving, two step problems and real life situations. Show that they can recall and apply: ▪ Counting reliably up to 20 items ▪ Read, write, order and compare numbers up to 20, including zero ▪ Complete a number line up to 20	**<u>Number</u>** Recall previous number facts and apply them in a variety of ways including problem solving, multiple step problems, real life situations and mathematical investigations. Show that they can recall and apply: ▪ Read, write, order and compare numbers up to 100 ▪ Recognise place value in two-digit numbers ▪ Count from 0 in steps of two, three and five ▪ Round numbers less than 100 to the nearest 10 ▪ Understand and identify odd and even numbers ▪ Read and write numbers up to 1,000 ▪ Order and compare numbers up to 1,000 ▪ Recognise place value in three-digit numbers ▪ Round numbers less than 1,000 to the nearest 10 ▪ Round numbers less than 1,000 to the nearest 100 ▪ Find 10 or 100 more or less than a given number ▪ Recognise and use multiples of 2, 3, 4, 5, 8, 10, 50 and 100

Education Goals

Excel Pathway

(GCSE)

Autumn 1

Number Operations

Use the Four Operations

- Add, subtract, multiply and divide whole numbers accurately.
- Choose the correct operation to solve a problem.
- Check answers using estimation or inverse operations.

Apply BIDMAS

- Understand that calculations must sometimes be completed in a specific order.
- Use brackets, indices, division, multiplication, addition and subtraction correctly.
- Solve calculations involving more than one operation.

Work with Negative Numbers

- Recognise and order positive and negative numbers.
- Read temperatures and values below zero.
- Add and subtract simple negative number

Understand Factors and Multiples

- Find factors and multiples of numbers up to 100.
- Recognise common multiples and common factors.
- Use factors and multiples to solve problems.

Find HCF and LCM

- Find the Highest Common Factor (HCF) of two numbers.
- Find the Lowest Common Multiple (LCM) of two numbers.
- Apply HCF and LCM to real-life and exam-style questions.

Education Goals

Explore Pathway

(Pre Entry and Entry 1)

Education Goals

Extend Pathway

(Entry 2 and Entry 3)

Year 10

Autumn 2	**<u>Number: Addition and subtraction multiplication and division</u>** ▪ Add two whole numbers with a total up to 20 ▪ Subtract one number up to 20 from another ▪ Understand and use the + and – signs to solve simple number problems ▪ recognise equal groups of numbers ▪ add equal groups of numbers ▪ use arrays to recognise multiplication facts on two occasions ▪ Show knowledge of 2 x tables ▪ Show knowledge of 5 x tables	**<u>Number: Addition, subtraction, multiplication and division</u>** ▪ Add whole numbers with a total up to 100 ▪ Subtract one number up to 100 from another ▪ Multiply using single digit whole numbers ▪ Understand and use the + - x ÷ and =signs to solve simple number problems ▪ Recall and use multiplication facts for the 2, 5 and 10 multiplication tables ▪ Add and subtract using three-digit numbers ▪ Multiply a two digit whole number by a single digit whole number ▪ Divide a two digit whole number by a single digit whole number ▪ Use and interpret +, –, x ,÷ and = in real-life situations for solving problems ▪ Use inverse operations to find missing numbers ▪ Estimate the answer to a calculation ▪ Recall and use multiplication facts for the 3, 4 and 8 multiplication tables

Education Goals

Excel Pathway

Autumn 2	**<u>Fractions</u>** **Understand Equivalent Fractions** • Recognise when fractions represent the same value.

	• Generate equivalent fractions using multiplication and division. • Compare fractions using equivalent forms. **Simplify Fractions** • Identify common factors of the numerator and denominator. • Simplify fractions to their lowest terms. • Explain why simplified fractions are equivalent to the original fraction. **Calculate with Fractions** • Add and subtract fractions with the same and different denominators. • Multiply fractions and whole numbers. • Multiply two fractions. • Solve fraction calculations accurately using written methods. **Find Fractions of Amounts** • Calculate unit fractions of quantities. • Find non-unit fractions of amounts. • Apply fraction skills to solve real-life problems involving sharing and proportions.	
	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** **(Entry 2 and Entry 3)**
Year 10		

Spring 1 	**Geometry** • Recognise and name squares, rectangles, triangles, circles, and cubes • Compare and order a group of shapes or pictures or similar shapes of different size and recognise congruent shapes • Use and understand positional vocabulary	**Geometry** • Recognise and name shapes including pentagons, hexagons and octagons and identify a right-angled triangle from a set of triangles • Recognise and name cuboids, pyramids and spheres • Describe the properties of 2D shapes, including straight and curved edges • Describe the properties of solids • Understand angle as a measure of turn • ▪ Recognise and name prisms, cylinders and cones ▪ Draw lines of symmetry on shapes or pictures ▪ Recognise and draw nets of cubes and cuboids ▪ Identify whether an angle is less or more than a right angle ▪ Identify horizontal, vertical and parallel lines ▪ Denote the position of a point on a grid by its coordinates or identify a point or item given its coordinates ▪ Use North (N), East (E), South (S) and West (W) to give directions or position from a map
Education Goals ***Excel Pathway***		
Spring 1	**Decimals and Percentages** **Understand the Links Between Fractions, Decimals and Percentages (FDP)** • Recognise equivalent fractions, decimals and percentages. • Convert between fractions, decimals and percentages. • Use FDP knowledge to compare and order values. **Find Percentages of Amounts**	

	• Calculate 10%, 25%, 50% and 75% of amounts mentally. • Find percentages of quantities using efficient methods. • Solve percentage problems in everyday contexts. **Calculate Percentage Increase and Decrease** • Calculate increases and decreases using percentages. • Understand percentage change in real-life situations. • Solve exam-style questions involving profit, discounts and changes in value. **Solve Money Problems** • Calculate totals and change accurately. • Compare prices and identify the best value. • Use percentages to calculate discounts and savings. • Apply maths skills to budgeting and shopping scenarios.	
	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** ***(Entry 2 and Entry 3)***
Year 10		
Spring 2	**Number: Fractions** ▪ Understand equality ▪ Identify or show one half of a quantity up to 20 ▪ Work out half of an even number up to 20	**Number: Fractions** ▪ Identify or show one third or one quarter of a quantity up to 24 ▪ Work out one third or one quarter of a number up to 24 ▪ Count in fractions of one half or one third or one quarter ▪ Work out amounts two, three or four times the size of a given amount

	Statistics ▪ Sort and classify objects using a single criterion ▪ Interpret and draw conclusions from a list or group of objects ▪ Construct and interpret simple line graphs	▪ Recognise the equivalence of ½ and 2/4 ▪ Identify or show unit fractions up to one tenth of a quantity up to 100 ▪ Work out unit fractions to one tenth of a number up to 100 ▪ Identify or show any number of thirds, quarters, fifths or tenths of a quantity ▪ Work out any number of thirds, quarters, fifths or tenths of an amount -Without remainder ▪ Recognise and identify equivalent fractions ▪ Add and subtract fractions with the same denominator within one whole ▪ Work out amounts 5, 8 or 10 times the size of a given amount **Statistics** ▪ Sort and classify objects using more than one criterion ▪ Collect information by survey ▪ Interpret simple tables, diagrams, lists and graphs ▪ Record results in lists, tally charts and tables ▪ Construct and interpret pictograms where one picture represents one item ▪ Construct and interpret bar charts with the vertical axis scaled in ones or twos ▪ Construct and interpret pictograms where one picture represents more than one item ▪ Extract numerical information from lists, tables, diagrams and charts ▪ Complete a frequency table given the original list of results ▪ Complete a tally chart and the resulting frequency table ▪ Compare two or more diagrams ▪ Solve one-step and two-step problems based on statistical information -Given daily temperature graphs for July and August, find how much higher the highest temperature was in July than in August

Education Goals

Excel Pathway

Spring 2	**Ratio and Proportion** **Share Amounts in a Given Ratio** • Understand ratio notation and language. • Divide quantities into a given ratio. • Apply ratio skills to sharing problems and real-life situations. **Use Scale** • Interpret scales on maps, drawings and models. • Calculate real-life measurements from scale diagrams. • Use scale factors to enlarge and reduce shapes. **Compare Best Buys** • Compare products using unit costs. • Decide which option offers the best value for money. • Explain decisions using mathematical reasoning. **Understand Direct Proportion** • Recognise situations where values increase or decrease at the same rate. • Use direct proportion to solve everyday problems. • Complete missing values in proportion tables. • Apply proportional reasoning to GCSE-style questions.

	Education Goals *Explore Pathway* *(Pre Entry and Entry1)*	Education Goals *Extend Pathway* *(Pre Entry and Entry 1)*
Year 10		
Summer 1 	**Measures** ▪ Compare lengths, heights, weights and capacities ▪ Give the length of a line drawn on a centimetre grid up to 20 cm ▪ Describe capacity in fractions	**Measures** ▪ Compare and order lengths, capacities and weights in the same unit ▪ Measure or draw a length using a ruler ▪ Choose appropriate standard units of length, capacity and weight ▪ Select a possible length, capacity or weight for a given item ▪ Estimate the weight, capacity or length of given items ▪ Add lengths, capacities and weights and compare the total to another total or a requirement ▪ Convert standard units of length, capacity and weight ▪ Compare and order lengths, capacities and weights in different standard units ▪ Measure the perimeter of a simple shape ▪ Choose an appropriate measuring instrument ▪ Read values from an appropriate scale ▪ Read and compare temperature including temperature with negative values
Education Goals *Excel Pathway*		

Summer 1	**Geometry and Measures**

Understand and Calculate Angles

- Identify and name different types of angles.
- Use angle facts to find missing angles.
- Calculate angles on a straight line and around a point.
- Solve problems involving angles in shapes.

Calculate Perimeter

- Understand that perimeter is the distance around the outside of a shape.
- Calculate the perimeter of regular and irregular shapes.
- Use the correct units of measurement.
- Apply perimeter skills to real-life situations.

Calculate Area

- Understand that area is the space inside a shape.
- Calculate the area of rectangles, squares and triangles.
- Solve problems involving compound shapes.
- Use the correct square units when measuring area.

Calculate Volume

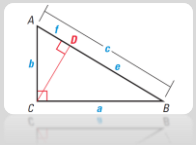
- Understand that volume is the amount of space inside a 3D shape.
- Calculate the volume of cubes and cuboids.
- Use cubic units correctly.
- Apply volume skills to practical and exam-style problems.

	Education Goals *Explore Pathway* *(Pre Entry and Entry 1)*	Education Goals *Extend Pathway* *(Entry 2 and 3)*
Year 10		
Summer 2 	**Money** ▪ Recognise coins and notes up to £20 ▪ Exchange money up to 20p for an equivalent amount in other denominations ▪ Add up to 20 coins **Time** ▪ To know the days of the week and their order ▪ Read the times to the hour or half hour on an analogue clock and draw the hands to show these times ▪ Order familiar events	**Money** ▪ Appreciate the purchasing power of amounts of money (coins) ▪ Convert from pence to pounds and vice versa ▪ Make amounts of money up to £2 from given coins ▪ Make amounts of money in multiples of £5 from £5, £10 and £20 notes ▪ Calculate with amounts of money in pence up to £1 and whole pounds up to £100 and give change ▪ Appreciate the purchasing power of amounts of money (notes) ▪ Exchange notes for an equivalent value in coins ▪ Use decimal notation for money ▪ Interpret a calculator display ▪ Solve real life problems involving what to buy and how to pay ▪ Add amounts of money and give change ▪ Carry out investigations involving money ▪ Solve problems involving time **Time** ▪ Know the seasons and months and their order ▪ Know that 1 week = 7 days; 1 day = 24 hours; 1 hour = 60 minutes; 1 minute = 60 seconds ▪ Read the time displayed on an analogue or 12 hour digital clock in hours, half hours and quarter hours and draw the hands on a clock or the digital display to represent these times

		▪ Read the time to the nearest five minutes on an analogue clock, draw the hands on a clock to show the time, and read any time on a digital clock ▪ Find the difference between two times given in hours, half hours and quarter hours ▪ Solve problems involving time ▪ Know that there are 365 days in a year, 366 days in a leap year, 12 months in a year and 52 full weeks in a year ▪ Use a calendar and write the date correctly (day/month/year) ▪ Tell and write the time from an analogue clock, including using Roman numerals from I to XII ▪ Understand and use the 12-hour and 24-hour clock systems and convert from one system to the other ▪ Convert between hours, minutes and seconds ▪ Add up to three lengths of time given in minutes and hours

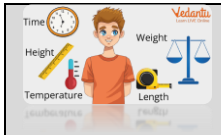
Education Goals

Excel Pathway

Summer 2 	**<u>Algebra Introduction</u>** **Use Substitution** • Understand that letters can represent numbers. • Substitute values into simple algebraic expressions. • Calculate answers accurately using the correct order of operations. • Apply substitution skills to solve problems. **Simplify Algebraic Expressions** • Identify like terms within an expression.

	• Collect like terms to simplify expressions. • Use correct algebraic notation. • Explain the steps used when simplifying. **Solve Equations** • Understand that equations must remain balanced. • Solve one-step and two-step equations using inverse operations. • Check solutions by substitution. • Apply equation-solving skills to real-life contexts. **Identify and Continue Sequences** • Recognise patterns in number sequences. • Continue linear sequences accurately. • Find the rule for a sequence. • Use algebra to describe simple sequence patterns.

	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** ***(Entry 2 and Entry 3)***
Year 11		
Autumn 1	**Measurement** ▪ Consolidate knowledge of comparing lengths, heights, weights and capacities ▪ Deepen knowledge in comparing and ordering lengths, capacities and weights in the same unit	**Measurement** ▪ Extend knowledge in measuring or drawing a length using a ruler ▪ Describe capacity in fractions ▪ Select appropriate standard units of length, capacity and weight ▪ Select a possible length, capacity or weight for a given item

	▪ Give the length of a line drawn on a centimetre grid up to 20 cm	▪ Estimate the weight, capacity or length of given items ▪ Deepen understanding lengths, capacities and weights and compare the total to another total or a requirement ▪ Consolidate converting standard units of length, capacity and weight ▪ Extend knowledge of compare and order lengths, capacities and weights in different standard units ▪ Measure accurately the perimeter of a simple shape ▪ Choose an appropriate measuring instrument ▪ Read values from an appropriate scale ▪ Read and compare temperature including temperature with negative values

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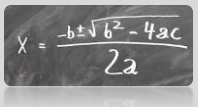
Autumn 1



Number and FDP

Apply the Four Operations Confidently

- Use addition, subtraction, multiplication and division accurately.
- Select the most appropriate operation to solve a problem.
- Apply number skills to exam-style and functional situations.
- Check answers using estimation and inverse operations.

Use Fractions Fluently

- Simplify and compare fractions.
- Calculate with fractions using the four operations.
- Find fractions of amounts.
- Apply fraction skills to multi-step problems.

Apply Percentage Skills

	• Find percentages of amounts. • Calculate percentage increase and decrease. • Convert between fractions, decimals and percentages. • Solve percentage problems in everyday contexts. **Use Ratio and Proportion Effectively** • Share amounts in a given ratio. • Simplify ratios. • Solve proportion problems. • Apply ratio skills to functional and exam questions. **Solve Multi-Step Exam Questions** • Identify the information needed to solve a problem. • Break problems into manageable steps. • Select appropriate mathematical methods. • Show clear working and justify answers. **Develop Calculator Skills** • Use a calculator efficiently and accurately. • Check answers for reasonableness. • Use calculator functions to support complex calculations. • Understand when mental, written or calculator methods are most appropriate. **Apply Maths to Functional Problems** • Solve problems involving money, shopping and budgeting. • Interpret information from tables, charts and diagrams. • Apply number skills to workplace and everyday scenarios.

	• Explain mathematical decisions using appropriate vocabulary.	
	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** ***(Entry 2 and Entry 3)***
Year 11		
Autumn 2	**Entry 1** **Money** ▪ Recognise coins and notes up to £20 ▪ Exchange money up to 20p for an equivalent amount in other denominations ▪ Add up to 20 coins **Time** ▪ To know the days of the week and their order ▪ Read the times to the hour or half hour on an analogue clock and draw the hands to show these times ▪ Order familiar events	**Entry 2** **Money** ▪ Appreciate the purchasing power of amounts of money (coins) ▪ Convert from pence to pounds and vice versa ▪ Make amounts of money up to £2 from given coins ▪ Make amounts of money in multiples of £5 from £5, £10 and £20 notes ▪ Calculate with amounts of money in pence up to £1 and whole pounds up to £100 and give change Entry 3 ▪ Appreciate the purchasing power of amounts of money (notes) ▪ Exchange notes for an equivalent value in coins ▪ Use decimal notation for money ▪ Interpret a calculator display ▪ Solve real life problems involving what to buy and how to pay ▪ Add amounts of money and give change ▪ Carry out investigations involving money **Entry 2 Time** ▪ Know the seasons and months and their order

		▪ Know that 1 week = 7 days; 1 day = 24 hours; 1 hour = 60 minutes; 1 minute = 60 seconds ▪ Read the time displayed on an analogue or 12 hour digital clock in hours, half hours and quarter hours and draw the hands on a clock or the digital display to represent these times ▪ Read the time to the nearest five minutes on an analogue clock, draw the hands on a clock to show the time, and read any time on a digital clock ▪ Find the difference between two times given in hours, half hours and quarter hours Entry 3 ▪ Solve problems involving time ▪ Know that there are 365 days in a year, 366 days in a leap year, 12 months in a year and 52 full weeks in a year ▪ Use a calendar and write the date correctly (day/month/year) ▪ Tell and write the time from an analogue clock, including using Roman numerals from I to XII ▪ Understand and use the 12-hour and 24-hour clock systems and convert from one system to the other ▪ Convert between hours, minutes and seconds ▪ Add up to three lengths of time given in minutes and hours
Education Goals ***Excel Pathway***		
Autumn 2	**Algebra and Formulae** **Use Substitution Accurately** • Substitute positive and negative numbers into algebraic expressions. • Follow the correct order of operations when calculating answers. • Apply substitution skills to solve mathematical and real-life problems.	

	• Check answers for accuracy. **Solve Equations Confidently** • Solve one-step and two-step equations using inverse operations. • Solve multi-step equations involving brackets and simplifying. • Check solutions by substitution. • Explain methods using mathematical vocabulary. **Recognise and Use Sequences** • Identify patterns in linear sequences. • Continue and complete sequences. • Find and use the rule of a sequence. • Solve GCSE-style sequence problems. **Use Formulae** • Understand that formulae show relationships between quantities. • Substitute values into simple formulae. • Use formulae to solve measurement and real-life problems. • Select the correct formula for a given situation. **Rearrange Simple Formulae** • Understand the meaning of rearranging a formula. • Change the subject of a formula in one-step situations. • Use inverse operations to rearrange formulae. • Apply rearranged formulae to solve problems. **Interpret and Draw Graphs**

	• Plot coordinates accurately. • Read information from graphs. • Draw simple linear graphs. • Interpret graphs in real-life contexts. • Use graphs to answer exam-style questions. **Develop Exam-Style Reasoning** • Explain mathematical thinking clearly. • Show all stages of working. • Justify answers using mathematical evidence. • Solve multi-step problems involving algebra, formulae and graphs.	
	Education Goals ***Explore Pathway*** ***(Pre Entry and Entry 1)***	**Education Goals** ***Extend Pathway*** ***(Entry 2 and Entry 3)***
Year 11		
Spring 1	**Number** ▪ Confidently count up to 20 items ▪ Consistently read, write, order and compare numbers up to 20, including zero ▪ Complete a number line up to 20	**Number** ▪ Consistently, write, order and compare numbers up to 100 ▪ Recognise place value in two-digit numbers ▪ Recall knowledge of counting in steps of two, three and five ▪ Consolidate rounding numbers less than 100 to the nearest 10 ▪ Understand and identify odd and even numbers ▪ Confidently read and write numbers up to 1,000 ▪ Concrete knowledge of ordering and comparing numbers up to 1,000 ▪ Recognise place value in three-digit numbers

		▪ Deepen understanding of rounding numbers less than 1,000 to the nearest 10 and nearest 100 ▪ Concrete knowledge of finding 10 or 100 more or less than a given number ▪ Understand and use multiples of 2, 3, 4, 5, 8, 10, 50 and 100 ▪ Recognise and continue linear sequences of numbers up to 100 ▪ Read, write and use decimals up to two decimal places Confidently recognise and continue sequences that involve decimals

Education Goals

Excel Pathway

Spring 1

Geometry and Measures

Calculate Angles Accurately

- Use angle facts to calculate missing angles.
- Apply rules for angles on a straight line, around a point and in shapes.
- Solve problems involving parallel lines.
- Explain reasoning using mathematical vocabulary.

Calculate Perimeter

- Find the perimeter of regular and irregular shapes.
- Calculate missing lengths when given partial information.
- Apply perimeter skills to real-life and exam-style problems.
- Use the correct units of measurement.

Calculate Area

- Calculate the area of rectangles, triangles and compound shapes.
- Select the correct formula for different shapes.
- Use appropriate square units.

	• Apply area calculations to practical contexts. **Calculate Volume** • Calculate the volume of cubes and cuboids. • Use volume formulae accurately. • Solve practical problems involving capacity and space. • Use correct cubic units. **Calculate Surface Area** • Understand the difference between area and surface area. • Identify the faces of 3D shapes. • Calculate the surface area of cubes and cuboids. • Apply surface area skills to GCSE-style questions. **Understand and Apply Circle Measures** • Identify the radius, diameter and circumference of a circle. • Calculate circumference using the correct formula. • Calculate the area of a circle. • Solve problems involving circles in real-life and exam contexts. **Use Pythagoras' Theorem** • Recognise when Pythagoras' Theorem can be used. • Calculate missing sides in right-angled triangles. • Apply Pythagoras' Theorem to solve problems. • Explain methods clearly and accurately. **Develop Problem-Solving Skills**

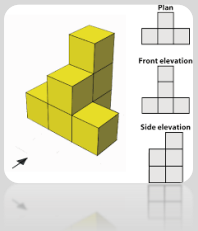
	• Interpret information presented in diagrams and questions. • Break multi-step problems into manageable stages. • Select appropriate mathematical methods. • Check answers and explain reasoning.	
	Education Goals ***Explore Pathway***	**Education Goals** ***Extend Pathway***
Year 11		
Spring 2 	**Statistics** ▪ Sort and classify objects using a single criterion ▪ Construct and interpret simple line graphs ▪ Collect information by survey **Number: Fractions** ▪ Understand equality ▪ Identify or show one half of a quantity up to 20 ▪ Work out half of an even number up to 20	**Statistics** ▪ Sort and classify objects using more than one criterion ▪ Interpret and draw conclusions from a list or group of objects ▪ Interpret simple tables, diagrams, lists and graphs ▪ Record results in lists, tally charts and tables ▪ Construct and interpret pictograms where one picture represents one item ▪ Construct and interpret bar charts with the vertical axis scaled in ones or twos ▪ Construct and interpret pictograms where one picture represents more than one item ▪ Extract numerical information from lists, tables, diagrams and charts ▪ Complete a frequency table given the original list of results ▪ Complete a tally chart and the resulting frequency table ▪ Compare two or more diagrams ▪ Solve one-step and two-step problems based on statistical information **Number: Fractions** ▪ Identify or show one third or one quarter of a quantity up to 24 ▪ Work out one third or one quarter of a number up to 24 ▪ Count in fractions of one half or one third or one quarter

		▪ Work out amounts two, three or four times the size of a given amount ▪ Recognise the equivalence of ½ and 2/4 ▪ Identify or show unit fractions up to one tenth of a quantity up to 100 ▪ Work out unit fractions to one tenth of a number up to 100 ▪ Identify or show any number of thirds, quarters, fifths or tenths of a quantity ▪ Work out any number of thirds, quarters, fifths or tenths of an amount ▪ Recognise and identify equivalent fractions ▪ Add and subtract fractions with the same denominator within one whole ▪ Work out amounts 5, 8 or 10 times the size of a given amount

Education Goals

Excel Pathway

Spring 2



Data Handling and Probability

Calculate and Interpret Averages

- Calculate the mean, median, mode and range.
- Select the most appropriate average for a set of data.
- Compare sets of data using averages.
- Interpret results and draw conclusions.

Read and Interpret Charts

- Extract information from bar charts, pie charts, line graphs and pictograms.
- Compare data presented in different charts.
- Draw and label charts accurately.
- Use charts to answer exam-style questions.

	Use Frequency Tables • Complete frequency tables from given information. • Interpret data presented in frequency tables. • Calculate totals and simple averages from frequency data. • Organise data accurately and systematically. **Understand and Apply Probability** • Understand probability as the likelihood of an event occurring. • Use the probability scale from 0 to 1. • Calculate the probability of simple events. • Compare theoretical and experimental probability. • Solve GCSE Foundation probability questions. **Interpret Two-Way Tables** • Read information from two-way tables. • Complete missing values in two-way tables. • Use totals to answer questions. • Apply probability and data handling skills using two-way tables. **Solve Data Handling and Probability Problems** • Select the correct mathematical method for a problem. • Interpret information presented in tables, charts and diagrams. • Explain reasoning using mathematical vocabulary. • Apply statistical and probability knowledge to exam-style questions.

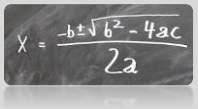
	Education Goals *Explore Pathway*	Education Goals *Extend Pathway*
Year 11		
Summer 1 	**Geometry** • Recognise and name squares, rectangles, triangles, circles, and cubes • Compare and order a group of shapes or pictures or similar shapes of different size and recognise congruent shapes • Use and understand positional vocabulary **Number: Addition, subtraction, multiplication and division (ELC to be sat in the may)** ▪ Add two whole numbers with a total up to 20 ▪ Subtract one number up to 20 from another ▪ Understand and use the + and – signs to solve simple number problems ▪ recognise equal groups of numbers ▪ add equal groups of numbers ▪ use arrays to recognise multiplication facts on two occasions ▪ Show knowledge of 2 x tables ▪ Show knowledge of 5 x tables	**Geometry** ▪ Recognise and name shapes including pentagons, hexagons and octagons and identify a right-angled triangle from a set of triangles ▪ Recognise and name cuboids, pyramids and spheres ▪ Confidently sort 2D and 3D shapes by properties (using everyday objects) ▪ Describe the properties of 2D shapes, including straight and curved edges ▪ Describe the properties of solids ▪ shapes of different size and recognise congruent shapes. ▪ Understand angle as a measure of turn ▪ Recognise and name prisms, cylinders and cones ▪ Draw lines of symmetry on shapes or pictures ▪ Recognise and draw nets of cubes and cuboids ▪ Identify whether an angle is less or more than a right angle ▪ Identify horizontal, vertical and parallel lines ▪ Denote the position of a point on a grid by its coordinates or identify a point or item given its coordinates ▪ Use North (N), East (E), South (S) and West (W) to give directions or position from a map **Number: Addition, subtraction, multiplication and division division (ELC to be sat in the may)** ▪ Add whole numbers with a total up to 100 ▪ Subtract one number up to 100 from another ▪ Multiply using single digit whole numbers ▪ Recall and use multiplication facts for the 2, 5 and 10 multiplication tables ▪ Understand and use the + - x ÷and =signs to solve simple number problems

		▪ Add and subtract using three-digit numbers ▪ Multiply a two digit whole number by a single digit whole number ▪ Divide a two digit whole number by a single digit whole number ▪ Use and interpret +, –, x ,÷ and = in real-life situations for solving problems ▪ Use inverse operations to find missing numbers ▪ Estimate the answer to a calculation ▪ Recall and use multiplication facts for the 3, 4 and 8 multiplication tables

Education Goals

Excel Pathway

Summer 1



To consolidate all key Foundation GCSE Maths topics and develop confidence, resilience and independence when tackling exam-style questions.

Apply Number Skills Accurately

- Use the four operations confidently.
- Calculate using positive and negative numbers.
- Use factors, multiples, HCF and LCM.
- Estimate and check answers for accuracy.
- Apply number skills to GCSE-style questions.

: Apply Ratio and Percentage Skills

- Share amounts in a given ratio.
- Calculate percentages of amounts.
- Solve percentage increase and decrease problems.
- Use proportional reasoning in real-life situations.
- Complete multi-step exam questions involving ratio and percentages.

Apply Algebra Skills Independently

	• Simplify expressions. • Substitute values into expressions and formulae. • Solve equations. • Recognise and continue sequences. • Apply algebra skills to exam-style problems **Use Geometry and Measure Skills** • Calculate angles using angle facts. • Find perimeter, area and volume. • Calculate surface area and circle measures. • Apply geometry skills to practical and exam contexts. • Solve multi-step geometry problems. **Interpret and Analyse Data** • Calculate mean, median, mode and range. • Interpret charts, graphs and tables. • Use frequency tables accurately. • Draw conclusions from data. • Apply statistical skills to exam-style questions. **Apply Probability Skills** • Use the probability scale. • Calculate simple probabilities. • Interpret probability from tables and diagrams. • Solve probability problems using two-way tables. • Explain probability outcomes using mathematical vocabulary. **Develop GCSE Exam Technique**

	• Read and understand exam questions independently. • Identify key information and command words. • Show clear mathematical working. • Use appropriate methods and equipment. • Check answers and make corrections where necessary. **Develop Problem-Solving and Reasoning Skills** • Break complex questions into smaller steps. • Select appropriate mathematical methods. • Explain reasoning clearly. • Justify answers using mathematical evidence. • Apply prior learning to unfamiliar questions.	
	Education Goals ***Explore Pathway***	**Education Goals** ***Extend Pathway***
Year 11		
Summer 2 	**<u>Number: Addition, subtraction, multiplication and division</u>** ▪ Add two whole numbers with a total up to 20 ▪ Subtract one number up to 20 from another ▪ Understand and use the + and – signs to solve simple number problems ▪ recognise equal groups of numbers ▪ add equal groups of numbers ▪ use arrays to recognise multiplication facts on two occasions ▪ Show knowledge of 2 x tables ▪ Show knowledge of 5 x tables	**<u>Number: Addition, subtraction, multiplication and division</u>** ▪ Add whole numbers with a total up to 100 ▪ Subtract one number up to 100 from another ▪ Multiply using single digit whole numbers ▪ Recall and use multiplication facts for the 2, 5 and 10 multiplication tables ▪ Understand and use the + - x ÷and =signs to solve simple number problems ▪ Add and subtract using three-digit numbers ▪ Multiply a two digit whole number by a single digit whole number ▪ Divide a two digit whole number by a single digit whole number

		▪ Use and interpret +, –, x ,÷ and = in real-life situations for solving problems ▪ Use inverse operations to find missing numbers ▪ Estimate the answer to a calculation ▪ Recall and use multiplication facts for the 3, 4 and 8 multiplication tables

Education Goals

Excel Pathway

Summer 2

Exam Preparation

To develop confidence, resilience and independence in preparation for GCSE Foundation Maths examinations through regular exam practice, vocabulary development and reflection on future pathways.

Improve Arithmetic Fluency

- Apply number skills quickly and accurately.
- Use the four operations confidently.
- Work with fractions, decimals and percentages fluently.
- Improve accuracy in calculator and non-calculator questions.
- Identify and correct common arithmetic errors.

Develop Problem-Solving Skills

- Read and understand multi-step questions.
- Select efficient methods to solve problems.
- Apply maths skills in unfamiliar contexts.
- Break complex questions into manageable steps.
- Explain reasoning and justify answers.

Use GCSE Mathematical Vocabulary Confidently

- Understand common GCSE command words.

	• Recognise topic-specific mathematical vocabulary. • Interpret exam questions accurately. • Use mathematical language when explaining methods. • Become familiar with key words that regularly appear in Foundation GCSE papers. **Effective Exam Techniques** • Manage time appropriately during assessments. • Show clear working out. • Use a calculator efficiently. • Check answers for accuracy. • Identify marks available and respond appropriately. • Build confidence when attempting unfamiliar questions. **Complete Walking-Talking Mock Papers** • Follow modelled solutions to GCSE questions. • Discuss effective strategies with peers and staff. • Identify strengths and next steps. • Learn from common misconceptions. • Improve performance through regular practice. **Reflect on Progress and Future Pathways** • Recognise personal strengths and achievements in maths. • Understand how maths skills are used in further education, employment and everyday life. • Explore next steps after GCSEs. • Develop confidence in applying maths independently beyond school.