Whole School Maths Curriculum Progression
Place Value

Curriculum Intent Statement:
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need:
- To understand the value and application of mathematics in relation to their real world experiences   - To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**	**COUNTING** ELG11 i) Have a deep understanding of number to 10, Including the composition of each number ELG12 i) Verbally count beyond 20, recognising the pattern of the counting system **REPRESENTATION** ELG11 (ii) subitise (recognise quantities without counting) up to 5	**COUNTING** Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count numbers to 100 in numerals; count in multiples of twos, fives and tens **REPRESENTATION** identify and represent numbers using objects and pictorial representations • read and write numbers to 100 in numerals • read and write numbers from 1 to 20 in numerals and words	**COUNTING** count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward **REPRESENTATION** read and write numbers to at least 100 in numerals and in words • identify, represent and estimate numbers using different representations, including the number line	**COUNTING** count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number **REPRESENTATION** • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words	**COUNTING** count in multiples of 6, 7, 9, 25 and 1000 • count backwards through zero to include negative numbers (In WRM negative numbers are introduced in y5) **REPRESENTATION** identify, represent and estimate numbers using different representations • 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	**COUNTING** count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • count forwards and backwards with positive and negative whole numbers, including through zero **REPRESENTATION** read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit • read Roman numerals to 1000 (M) and recognise years written in Roman numerals	**REPRESENTATION** read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit

	USE AND COMPARISON	USE AND COMPARISON	USE AND COMPARISON	USE AND COMPARISON	USE AND COMPARISON	USE AND COMPARISON	USE AND COMPARISON
	ELG12 (iii) compare quantities up to 10 in different contexts,recognising when one quantity is greater than, less than or the same as another quantity	given a number, identify one more and one less	recognise the place value of each digit in a two-digit number (tens, ones) • compare and order numbers from 0 up to 100; use <, > and = signs	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000	• find 1000 more or less than a given number • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) • order and compare numbers beyond 1000	(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit	(read, write), order and compare numbers up to 10 000 000 and determine the value of each digit
			PROBLEM SOLVING AND ROUNDING use place value and number facts to solve problems	**PROBLEM SOLVING AND ROUNDING** solve number problems and practical problems involving these ideas	**PROBLEM SOLVING AND ROUNDING** • 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	**PROBLEM SOLVING AND ROUNDING** interpret negative numbers in context • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above	**PROBLEM SOLVING AND ROUNDING** 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
DfE Ready to Progress Criteria		1NPV-1 Count within 100, forwards and backwards, starting with any number. 1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	2NPV-1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. 2NPV-2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10	3NPV-1 Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10 3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using	4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100 4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using	5NPV-1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01 5NPV-2 Recognise the place value of each digit in numbers with up to 2 decimal places, and	6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). 6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and

				standard and non-standard partitioning. 3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10 3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	standard and non-standard partitioning. 4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each. 4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning. 5NPV-3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. 5NPV-4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. 5NPV-5 Convert between units of measure, including using common decimals and fractions.	compose and decompose numbers up to 10 million using standard and non-standard partitioning. 6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. 6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.

Addition and Subtraction

Curriculum Intent Statement:

The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need:

● To understand the value and application of mathematics in relation to their real world experiences
● To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**	CALCULATIONS ELG11 iii) Automatically recall (without reference to rhymes, counting ot other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including doubling facts	CALCULATIONS Add and subtract one-digit and two digit numbers to 20, including zero	CALCULATIONS Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ➢ a two-digit number and ones ➢ a two-digit number and tens ➢ two two-digit numbers ➢ adding three one digit numbers	CALCULATIONS Add and subtract numbers mentally, including: ➢ a three-digit number and ones ➢ a three-digit number and tens ➢ a three-digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	CALCULATIONS Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	CALCULATIONS 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	CALCULATIONS 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
	PROBLEM SOLVING	PROBLEM SOLVING Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9	PROBLEM SOLVING Solve problems with addition and subtraction: ➢ using concrete objects and pictorial representations, including those involving numbers, quantities and	PROBLEM SOLVING Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	PROBLEM SOLVING Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why	PROBLEM SOLVING Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction,	PROBLEM SOLVING solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why

			measures ➢ applying their increasing knowledge of mental and written methods				multiplication and division and a combination of these, including understanding the meaning of the equals sign	
DfE Ready to Progress Criteria		1NF-1 Develop fluency in addition and subtraction facts within 10 1NF-2 Count 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. 1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. 1AS-2 Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice. 2AS-1 Add and subtract across 10 2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?". 2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. 2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). 3AS-1 Calculate complements to 100 3AS-2 Add and subtract up to three-digit numbers using columnar methods. 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.			6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio relationships. 6AS/MD-4 Solve problems with 2 unknowns.	

Whole School Maths Curriculum Progression
Fractions, Decimals and Percentages

Curriculum Intent Statement:
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need: ● To understand the value and application of mathematics in relation to their real world experiences   ● To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**		**RECOGNISE AND WRITE** 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	**RECOGNISE AND WRITE** Recognise, find, name and write fractions ⅓ , ¼ , 2/4 and ¾ of a length, shape, set of objects or quantity	**RECOGNISE AND WRITE** 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 WRITE** Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	**RECOGNISE AND WRITE** Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number	**RECOGNISE AND WRITE**
			COMPARE Recognise the equivalence of 2/4 and 1/2	**COMPARE** Recognise and show, using diagrams, equivalent fractions with small denominators	**COMPARE** Recognise and show, using diagrams, families of common equivalent fractions	**COMPARE** Compare and order fractions whose denominators are all multiples of the same number	**COMPARE** Use common factors to simplify fractions; use common multiples to express fractions

				Compare and order unit fractions, and fractions with the same denominators			in the same denomination Compare and order fractions, including fractions > 1
			CALCULATIONS Write simple fraction calculations for example, 1/ 2 of 6 = 3	**CALCULATIONS** Add and subtract fractions with the same denominator within one whole [for example, 5/ 7 + 1/ 7 = 6 /7]	**CALCULATIONS** Add and subtract fractions with the same denominator	**CALCULATIONS** 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	**CALCULATIONS** Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,1/4 × 1/ 2 = 1/ 8] Divide proper fractions by whole numbers [for example 1/ 3 ÷ 2 = 1/ 6]
				PROBLEM SOLVING Solve problems that involve all of the above	**PROBLEM SOLVING** 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		
					RECOGNISE, WRITE, COMPARE Recognise and write decimal equivalents of any number of	**RECOGNISE, WRITE, COMPARE** Read and write decimal numbers as fractions [for	**RECOGNISE, WRITE, COMPARE** Identify the value of each digit in numbers given to

					tenths or hundredths Recognise and write decimal equivalents to 1/4 , 1/2 , 3/4 Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places	example, 0.71 = 71 100] Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Round decimals with two decimal places to the nearest whole number and to one decimal place Read, write, order and compare numbers with up to three decimal places	three decimal places
					FRACTIONS,DECIMALS AND PERCENTAGES Solve simple measure and money problems involving fractions and decimals to two decimal places	**FRACTIONS,DECIMALS AND PERCENTAGES** Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25	**FRACTIONS,DECIMALS AND PERCENTAGES** Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

DfE Ready to Progress Criteria				3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency). 3F-3 Reason about the location of any fraction within 1 in the linear number system. 3F-4 Add and subtract fractions with the same denominator, within 1	4F-1 Reason about the location of mixed numbers in the linear number system. 4F-2 Convert mixed numbers to improper fractions and vice versa. 4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	5F-1 Find non-unit fractions of quantities. 5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. 5F-3 Recall decimal fraction equivalents for 1/4 , 1/2 , 1/5 and 1/10 and for multiples of these proper fractions.	6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F-2 Express fractions in a common denomination and use this to compare fractions that are similar in value. 6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.

Whole School Maths Curriculum Progression
GEOMETRY

Curriculum Intent Statement:
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need:
● To understand the value and application of mathematics in relation to their real world experiences ● To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**	In EYFS children explore the properties and language of shapes and objects. They sort and label based on different criteria	**2D SHAPES** *Recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]	**2D SHAPES** *Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] *Compare and sort common 2-D shapes and everyday objects	**2D SHAPES** *Draw 2-D shapes	**2D SHAPES** *Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes *Identify lines of symmetry in 2-D shapes presented in different orientations	**2D SHAPES** *Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. *Use the properties of rectangles to deduce related facts and find missing lengths and angles	**2D SHAPES** *Draw 2-D shapes using given dimensions and angles *Compare and classify geometric shapes based on their properties and sizes Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
		3D SHAPES *Recognise and name common 3- D shapes [for example, cuboids (including cubes), pyramids and spheres]	**3D SHAPES** *Recognise and name common 3- D shapes [for example, cuboids (including cubes), pyramids and spheres] *Compare and sort common 3-D shapes	**3D SHAPES** *Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	**3D SHAPES**	**3D SHAPES** *Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	**3D SHAPES** *Recognise, describe and build simple 3-D shapes, including making nets

		and everyday objects				
	ANGLES AND LINES	**ANGLES AND LINES**	**ANGLES AND LINES** *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	**ANGLES AND LINES** *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	**ANGLES AND LINES** *Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles *Draw given angles, and measure them in degrees *Identify: ➢ angles at a point and one whole turn (total 360˚) ➢ angles at a point on a straight line and 1 2 a turn (total 180˚) ➢ other multiples of 90˚	**ANGLES AND LINES** *Find unknown angles in any triangles, quadrilaterals, and regular polygons *Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
	POSITION AND DIRECTION *Describe position, direction and movement, including whole, half, quarter and three-quarter turns	**POSITION AND DIRECTION** *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	**POSITION AND DIRECTION**	**POSITION AND DIRECTION** *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	**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	**POSITION AND DIRECTION** *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

			three-quarter turns (clockwise and anticlockwise)				
DfE Ready to Progress Criteria		1G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. 1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	2G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.	3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations. 3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. 4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons. 4G-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	5G-1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. 5G-2 Compare areas and calculate the area of rectangles (including squares) using standard units.	6G-1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.

Whole School Maths Curriculum Progression
Measurement

Curriculum Intent Statement:
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need: ● To understand the value and application of mathematics in relation to their real world experiences ● To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**		**USING MEASURE** *Compare, describe and solve practical problems for: ➢ lengths and heights ➢ mass/weight ➢ capacity and volume ➢ time *Measure and begin to record the following: ➢ lengths and heights ➢ mass/weight ➢ capacity and volume ➢ time (hours, minutes, seconds)	**USING MEASURE** *Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (℃); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels *Compare and order lengths, mass, volume/capacity and record the results using >, < and =	**USING MEASURE** *Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	**USING MEASURE** *Convert between different units of measure [for example, kilometre to metre; hour to minute] *Estimate, compare and calculate different measures	**USING MEASURE** *Convert between different units of metric measure *Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints *Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	**USING MEASURE** *Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. 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 3 d.p. Convert between miles and kilometres
		MONEY *Recognise and know the value of different	**MONEY** *Recognise and use symbols for pounds (£) and pence (p);	**MONEY** *add and subtract amounts of money to give change,	**MONEY** *estimate, compare and calculate different measures,	**MONEY** *use all four operations to solve problems involving	**MONEY**

		denominations of coins and notes	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	using both £ and p in practical contexts	including money in pounds and pence	measure [for example, money]	
		TIME *Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] *Recognise and use language relating to dates, including days of the week, weeks, months and years *Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	**TIME** *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	**TIME** *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 Compare durations of events [for	**TIME** *Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	**TIME** *solve problems involving converting between units of time	**TIME** *Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa

		PERIMETER, AREA AND VOLUME	PERIMETER, AREA AND VOLUME	PERIMETER, AREA AND VOLUME	PERIMETER, AREA AND VOLUME	PERIMETER, AREA AND VOLUME	PERIMETER, AREA AND VOLUME
			example to calculate the time taken by particular events or tasks]	*Measure the perimeter of simple 2-D shapes	*Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Find the area of rectilinear shapes by counting squares	*Measure 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 *Estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]	*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
DfE Ready to Progress Criteria							

Whole School Maths Curriculum Progression
Multiplication and Division

Curriculum Intent Statement:
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need: ● To understand the value and application of mathematics in relation to their real world experiences ● To appreciate the subject through aspirational visitors, role models and events for future STEM careers

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**	ELG11 iii) … including some doubling facts ELG12 iii) Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.		**RECALL AND USE** 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	**RECALL AND USE** Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	**RECALL AND USE** 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	**RECALL AND USE** 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 (non prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared (2)and cubed (3)	**RECALL AND USE** Identify common factors, common multiples and prime numbers Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
			CALCULATIONS Calculate mathematical statements for multiplication and	**CALCULATIONS** write and calculate mathematical statements for multiplication and	**CALCULATIONS** multiply two-digit and three-digit numbers by a one-digit number	**CALCULATIONS** multiply numbers up to 4 digits by a one- or two-digit number using a formal	**CALCULATIONS** multiply multi-digit numbers up to 4 digits by a two-digit whole number using

			division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods	using formal written layout		written method, including long multiplication for two digit numbers Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	the formal written method of long multiplication Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context Perform mental calculations, including with mixed operations and large numbers
		PROBLEM SOLVING Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the	**PROBLEM SOLVING** Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	**PROBLEM SOLVING** Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are	**PROBLEM SOLVING** Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder	**PROBLEM SOLVING** Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving	**PROBLEM SOLVING** Solve problems involving addition, subtraction, multiplication and division	

		support of the teacher		connected to m objects	correspondence problems such as n objects are connected to m objects	multiplication and division, including scaling by simple fractions and problems involving simple rates **COMBINED** solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**COMBINED** use their knowledge of the order of operations to carry out calculations involving the four operations
DfE Ready to Progress Criteria		1NF-1 Develop fluency in addition and subtraction facts within 10 1NF-2 Count 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	2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division)	3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). 3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.	4NF-1 Recall multiplication and division facts up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number. 4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context 4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). 4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. 4MD-2 Manipulate multiplication and division equations, and understand and apply the	5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. 5NF-2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth). 5MD-1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. 5MD-2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. 5MD-3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. 5MD-4 Divide a number with up to 4 digits by a	6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio relationships 6AS/MD-4 Solve problems with 2 unknowns

					commutative property of multiplication. 4MD-3 Understand and apply the distributive property of multiplication.	one-digit number using a formal written method, and interpret remainders appropriately for the context.	

Whole School Maths Curriculum Progression
Ratio and Proportion, Algebra

Curriculum Intent Statement:		
The breadth of our Maths curriculum is adapted to our beliefs about the needs of our pupils and our values as a school. We have agreed that within our Maths curriculum, Welton children need:		
• To understand the value and application of mathematics in relation to their real world experiences • To appreciate the subject through aspirational visitors, role models and events for future STEM careers		

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Breadth of study **Threshold Concepts**							**RATIO AND PROPORTION** *Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts *Solve problems involving the calculation/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

	ELG 12 - Numerical Patterns i) Verbally count beyond 20, recognising the pattern of the counting system. ii) Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity. iii) Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	**ALGEBRA** *Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 =__ – 9	**ALGEBRA** *Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	**ALGEBRA** *Solve problems, including missing number problems	**ALGEBRA**	**ALGEBRA**	**ALGEBRA** *Use simple formulae *Generate and describe linear number sequences *Express missing number problems algebraically *Find pairs of numbers that satisfy an equation with two unknowns *Enumerate possibilities of combinations of two variables
DfE Ready to Progress Criteria							6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.

							6AS/MD-3 Solve problems involving ratio relationships. 6AS/MD-4 Solve problems with 2 unknowns.