

Maths Curriculum Overview 2021/22 – Orange Phase (5)

	Autumn		Spring		Summer	
Week	1	2	1	2	1	2
1	Assessment Week	Number – Place value Multiplication Can I identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers? Do I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers? Can I establish whether a number up to 100 is prime & recall prime numbers up to 19? Multiply decimals up to three decimal places (L2 Extension)	Assessment Week	Measure Money Can I 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 units, tenths and hundredths? Can I solve simple measure and money problems involving fractions and decimals to two decimal places? Convert between units of money in the same system (L1 extension)	Assessment Week	Measure Time Can I read, write and convert time between analogue and digital 12- and 24-hour clocks? Can solve problems involving converting between units of time? Convert between units of time, in the same system (L1 Extension)
2	Number – Place value Place Value Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit? Can I count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000? Recognise and use positive and negative numbers (L1 Extension)	Number – Place value Place Value Can I count forwards and backwards in steps of powers of 10? Can I read Roman numerals to 1000 (M) and recognise years written in Roman numerals? Recognise and use positive and negative numbers (L1 Extension)	Geometry Properties of shape Can I describe movements between positions as translations of a given unit to the left/right and up/down? Can I 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? Calculate perimeters and areas of 2-D shapes including triangles and circles and composite shapes including non-rectangular shapes (formulae given except for triangles and circles) (L2 Extension)	Measure Measurement Can I measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres? Can I calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes? Can I estimate volume [for example, using 1 cm ³ blocks to build cuboids] and capacity [for example, using water] and weight [grams and kilograms]?	Statistics Can I create, read and interpret information in tables and graphs including timetables? Find the mean and range of a set of quantities (L1 Extension)	Measure Measurement Can I use all four operations to solve problems involving measure [for example, length, mass, volume, money, weight, distance] using decimal notation including scaling? Recognise and make use of simple scales on maps and drawings (L1 Extension)

				Convert between units of weight in the same system (L1 Extension)		
3	<p>Number – Place value</p> <p>Place Value</p> <p>Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit?</p> <p>Can I interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero?</p> <p>Read, write, order and compare positive and negative numbers of any size (L2 Extension)</p>	<p>Number – Place value</p> <p>Division</p> <p>Can I multiply and divide numbers mentally, drawing upon known facts?</p> <p>Can I multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000?</p> <p>Divide whole numbers and decimals by 10, 100, 1000 (L1 Extension)</p>	<p>Number – Place value</p> <p>Place Value</p> <p>Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit?</p> <p>Can I solve number problems and practical problems that involve all of the above?</p> <p>Read, write, order and compare positive and negative numbers of any size (L2 Extension)</p>	<p>Number – Place value</p> <p>Place Value</p> <p>Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit?</p> <p>Can I round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, and 100,000 and use the rounded answer to check results?</p> <p>Recognise and use positive and negative numbers (L1 Extension)</p>	<p>Number – Place value</p> <p>Decimals</p> <p>Can I recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents?</p> <p>Can I round decimals with two decimals places to the nearest whole number and to one decimal place?</p> <p>Order, approximate and compare decimals (L2 Extension)</p>	<p>Number – Place value</p> <p>Place Value</p> <p>Can I read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit?</p> <p>Can I solve number problems and practical problems that involve all of the above?</p> <p>Read, write, order and compare positive and negative numbers of any size (L2 Extension)</p>
4	<p>Number – Place value</p> <p>Addition</p> <p>Can I add whole numbers with more than 4 digits, including using formal written methods (columnar addition)?</p> <p>Carry out calculations with numbers up to one million using strategies to check answers including estimation and approximation (L2 Extension)</p>	<p>Number – Place value</p> <p>Division</p> <p>Can I 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?</p> <p>Divide decimals up to three decimal places (L2 Extension)</p>	<p>Number – Place value</p> <p>Addition and Subtraction</p> <p>Can I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy?</p> <p>Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why?</p> <p>Carry out calculations with numbers up to one million using strategies to check answers including estimation and approximation (L2 Extension)</p>	<p>Number – Place value</p> <p>Multiplication and Division</p> <p>Can I solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors?</p> <p>Carry out calculations with numbers up to one million using strategies to check answers including estimation and approximation (L2 Extension)</p> <p>Can I 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?</p> <p>Can I solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates?</p> <p>Carry out calculations with numbers up to one million using strategies to check</p>	<p>Number – Place value</p> <p>Fractions, Decimals & Percentages</p> <p>Do I recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred' and write percentages as a fraction with denominator hundred, and as a decimal fraction?</p> <p>Can I solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25?</p> <p>Calculate percentages of quantities, including simple percentage increases and decreases by 5% and multiples thereof (L1 Extension)</p>	<p>Number – Place value</p> <p>Addition and Subtraction</p> <p>Can I add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)?</p> <p>Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why?</p> <p>Use simple formulae expressed in words for one or two-step operations (L1 Extension)</p>

				answers including estimation and approximation (L2 Extension)		
5	<p>Number – Place value</p> <p>Subtraction</p> <p>Can I subtract whole numbers with more than 4 digits, including using formal written methods (columnar subtraction)?</p> <p>Carry out calculations with numbers up to one million using strategies to check answers including estimation and approximation (L2 Extension)</p>	<p>Number – Place value</p> <p>Fractions</p> <p>Can I compare and order fractions whose denominators are all multiples of the same number?</p> <p>Can I identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths?</p> <p>Identify and know the equivalence between fractions, decimals and percentages (L2 Extension)</p>	<p>Number – Place value</p> <p>Addition and Subtraction</p> <p>Can I add and subtract numbers mentally with increasingly large numbers?</p> <p>Can I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy?</p> <p>Use simple formulae expressed in words for one or two-step operations (L1 Extension)</p>	<p>Measure</p> <p>Time</p> <p>Can I solve problems involving converting between units of time?</p> <p>Calculate using compound measures including speed (L2 Extension)</p>	<p>Geometry</p> <p>Properties of shape</p> <p>Can I identify 3-D shapes, including cubes and other cuboids, from 2D representations?</p> <p>Can I use the properties of rectangles to deduce related facts and find missing lengths and angles?</p> <p>Can I distinguish between regular and irregular polygons based on reasoning about equal sides and angles?</p> <p>Calculate the volumes of cubes and cuboids (L1 Extension)</p>	<p>Number – Place value</p> <p>Multiplication and Division</p> <p>Can I 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?</p> <p>Can I solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign?</p> <p>Use simple formulae expressed in words for one or two-step operations (L1 Extension)</p>
6	<p>Number – Place value</p> <p>Addition and Subtraction</p> <p>Can I add and subtract numbers mentally with increasingly large numbers?</p> <p>Can I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why?</p> <p>Add and subtract decimals up to three decimal places (L2 Extension)</p>	<p>Number – Place value</p> <p>Fractions</p> <p>Can I recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number, e.g. $2/5 + 4/5 = 6/5 = 11/5$?</p> <p>Can I add and subtract fractions with the same denominator and multiples of the same number?</p> <p>Identify and know the equivalence between fractions, decimals and percentages (L2 Extension)</p>	<p>Measure</p> <p>Time</p> <p>Can I read, write and convert time between analogue and digital 12- and 24-hour clocks?</p> <p>Convert between units of time, in the same system (L1 Extension)</p>	<p>Geometry</p> <p>Position and Movement</p> <p>Do I know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles?</p> <p>Can I draw given angles, and measure them in degrees (°)?</p> <p>Use angles when describing position and direction, and measure angles in degrees (L1 Extension)</p>	<p>Geometry</p> <p>Position and Movement</p> <p>Can I 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?</p> <p>Use coordinates in 2-D, positive and negative, to specify the positions of points (L2 Extension)</p>	<p>Statistics</p> <p>Can I complete, read and interpret information in tables, including timetables.</p> <p>Represent discrete data in tables, diagrams and charts including pie charts, bar charts and line graphs (L1 Extension)</p>

7	<p>Number – Place value</p> <p>Multiplication</p> <p>Can I recall multiplication facts for multiplication tables up to 12 x 12?</p> <p>Can I 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?</p> <p>Multiply whole numbers and decimals by 10, 100, 1000 (L1 Extension)</p>	<p>Geometry</p> <p>Properties of shape</p> <p>Can I identify 3-D shapes, including cubes and other cuboids, from 2D representations?</p> <p>Draw 2-D shapes and demonstrate an understanding of line symmetry and knowledge of the relative size of angles (L1 Extension)</p>				<p>Measure</p> <p>Money</p> <p>Can I use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation including scaling?</p> <p>Calculate percentage change (any size increase and decrease), and original value after percentage change (L2 Extension)</p>
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Topic coverage (number of weeks)

Place Value – 6

Time – 3

Shape – 3

Addition & Subtraction – 6

Money – 2

Position & Movement – 2

Multiplication & Division – 6

Statistics – 2

Measurement - 2

Fractions/Decimals/Percentages – 4

Extended coverage through – mental maths, investigative questioning, next steps, interventions, cross-topic links