Hampshire Services
HIAS SCHOOL IMPROVEMENT

HIAS MOODLE+ RESOURCE

HIAS Scheme of Learning for Mathematics

Medium Term Plans for Mixed Year Four and Five Classes

HIAS Maths Team
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Final version

Hampshire County Council

www.hants.gov.uk

Overview

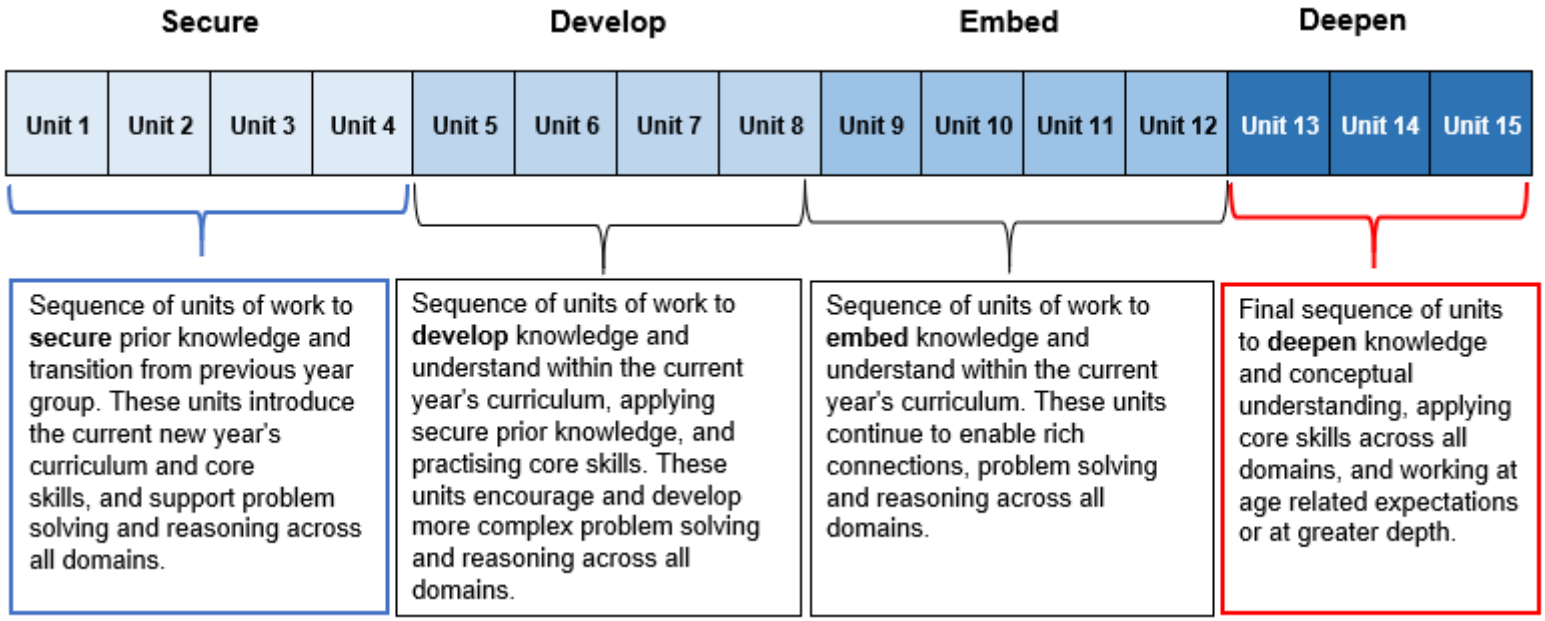
This document contains…
Long-term curriculum map for Y4 and 5
Medium-term overview plans for Y4 and 5 designed to support mixed age classes

Points to consider when using this resource
This medium-term plan identifies the key objectives in each unit.
For more detail and a break-down of these objectives please refer to the relevant unit plan.
Unit plans identify a learning journey, required prior knowledge, misconceptions, key vocabulary, and suggested tasks.
Appropriate models, images, concrete resources, and visual representations are an implicit element in all units.

A suggested schedule for assessment is included as colour-coded bands, linked to the Hampshire Assessment Model if required.

Plans are based on a **39-week school year** and will need to be **adjusted** on a term-by-term basis.

Overview of curriculum intent



Key for assessment bands

AM1	AM2	AM3	ARE
Assessment Milestone 1	Assessment Milestone 2	Assessment Milestone 3	Assessment ARE

YEAR 4 and 5 Autumn Term

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives

	4.1
	5.1
		15	Number Place Value; Addition and Subtraction	• Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).
				• Identify, represent, and estimate numbers using different representations.
				• Order and compare number beyond 1000.
				• Y3: Find 10 or 100 more or less than any given number.
				• Find 1000 more or less than any given number.
				• Count backwards through zero to include negative numbers.
				• Round any number to the nearest 10,100,1000.
				• Y2: Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.
				• Y3: Read and write numbers to at least 1000 in numerals and in words.
				• Y3: Add and subtract numbers mentally including:
				  ○ a three-digit number and ones
				  ○ a three-digit number and tens
				  ○ a three-digit number and hundreds.
				• Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
				•
					• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
					• Y4: Identify, represent and estimate numbers using different representations.
					• Round any number up to 1,000,000 to the nearest 10,100,1000, 10,000 and 100,000
					• Add and subtract numbers mentally with increasingly large numbers.
					• Add and subtract whole numbers with more than 4 digits, including formal written methods.
					• 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.
					• Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
					• Use all four operations to solve problems involving measure (e.g. length, mass, volume, money), using decimal notation.

			I can…	• I can recognise and represent the place value of digits in a four-digit number. • I can estimate the position of numbers on a number line. • I can position and compare numbers on a number line. • I can find 10, 100 or 1000 more than any given number. • I can count backwards through zero. • I can round any number up to 10,000 to the nearest 10, 100 or 1000. • I can use related facts. • I can use a range of mental strategies when adding and subtracting numbers. • I can solve two-step addition and subtraction problems.	• I can recognise and represent the place value of digits in a four- and five-digit number. • I can position and compare numbers on a number line. • I can use related facts. • I can round any number to the nearest 10, 100, 1000, 10,000 and 100,000. • I can use a range of mental strategies when adding and subtracting numbers. • I can add and subtract mentally with increasingly larger numbers. • I can solve addition and subtraction multi-step problems. • I can measure and calculate the perimeter of composite rectilinear shapes. • I can use all four operations to solve problems involving length.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.3 5.2	15	Multiplication and Division	• 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 multiplication and division facts for multiplication tables up to 12 x 12. • 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.	• 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. • 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. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • Multiply and divide numbers mentally drawing upon known facts.
			I can…	• I can recall and use multiplication and division facts. • I can recall and use multiplication and division facts for the 6 and 7 multiplication tables. • I can solve problems involving the 6 and 7 multiplication tables. • I can use division facts for the 6 and 7 multiplication tables. • I can solve problems with remainders involving the 6 and 7 multiplication tables.	• I can make links between arrays and area. • I can calculate, compare, and order the area of rectangles. • I can identify multiples and factors. • I can identify prime numbers. • I can multiply and divide by 10 and 100. • I can divide by sharing and grouping. • I can use known facts to estimate.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.5 **5.5**	10	Measurement with Four Operations	• Y3: Measure, compare, add and subtract lengths (mm/cm/m/km); mass (kg/g). • Convert between different units of measure (e.g. kilometres to metres, hours to minutes). • Count up and down in hundredths; recognising that hundredths arise from dividing an object by hundred and dividing tenths by ten. • Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones).	• Round decimals with two decimal places to the nearest whole number and to one decimal place • Convert between different units of metric measure (e.g. grams/kilograms; millilitres/litres) • Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints. • Use all four operations to solve problems involving measure (mass and capacity) using decimal notation including scaling. • Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • Identify factors and multiples, including finding all factor pairs of a number, and common factors of two numbers. • Know and use the vocabulary of prime numbers, common prime factors and composite (non-prime) numbers. • Solve problems involving addition, subtraction, multiplication and division, including using their knowledge of factors and multiples, squares and cubes. • 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.
			I can…	• I can identify key facts for length. • I can count in fractional steps. • I can accurately read scales to solve problems involving length. • I can solve problems involving adding and subtracting length. • I can identify key facts for mass. • I can accurately read scales to solve problems involving mass. • I can solve problems involving adding and subtracting mass.	• I can convert between different units of metric measure (mass). • I can read scales to measure in grams and kilograms. • I can round decimals with two decimals places to the nearest whole number. • I can solve problems in the context of mass. • I can convert between different units of metric measure (capacity). • I can read scales to measure in millilitres and litres. • I can round decimals with two decimals places to the nearest whole number. • I can solve problems in the context of capacity.

					• I can solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. • I can use the vocabulary of factor, multiple and prime. • I can solve problems using knowledge of factors and multiples. • I can use a formal written method to multiply numbers up to 4-digits. • I can solve problems in context, deciding which methods to use and why.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.4 **5.3** **5.4**	15	Fractions	• Recognise and show, using diagrams, families of common equivalent fractions. • Y3: Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by 10. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. • Recognise and write decimal equivalents of any number of tenths or hundredths. • 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 one decimal place to the nearest whole number. • Add and subtract fractions with the same denominator.	• Identify, name, and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. • Compare and order fractions whose denominators are all multiples of the same number. • Add and subtract fractions with the same denominator and multiples of the same number. • Recognise mixed numbers and improper fractions, and convert from one form to another and write mathematical statements > 1 as a mixed number.
			I can…	• I can count in fractional steps. • I can solve problems by counting in fractional steps. • I can recognise families of common equivalent fractions. • I can compare fractions and identify equivalence. • I can count up and down in tenths. • I can count up and down in hundredths. • I can round decimals to the nearest whole number. • I can add and subtract fractions with the same denominator.	• I can represent families of common equivalent fractions. • I can compare, order, and find equivalent fractions. • I can convert between mixed and improper fractions. • I can add and subtract fractions with the same denominator. • I can add and subtract fractions with denominators of multiples of the same number.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.5 5.4	5	Time	• Y3: Estimate and read time within increased accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock. Use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight. • Read, write and convert time between analogue and digital 12- and 24-hour clocks.	• Complete, read and interpret information in tables, including timetables. • Solve problems involving converting between units of time
			I can…	• I can identify key facts for time. • I can tell the time to the nearest minute. • I can, write and convert time between analogue and digital clocks.	• I can recall and represent key facts of time. • I can solve problems involving time durations. • I can solve time problems using key facts. • I can read and interpret information in timetables.
	4.4 5.4	5	Geometry	• 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. • Complete a simple symmetric figure with respect to a specific line of symmetry. • Find the area of rectilinear shapes by counting squares. • Describe positions on a 2-D grid as co-ordinates in the first quadrant.	• Y4: Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and size. • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. • Identify, describe and represent the position of a shape following a reflection or a translation, using the appropriate language and know that the shape has not changed.
			I can…	• I can compare and sort 2D shapes based on their properties. • I can identify acute and obtuse angles. • I can identify the line of symmetry. • I can find the area of shapes by counting squares, • I can describe positions on a 2-D grid as coordinates,	• I can identify properties of geometric shapes. • I can compare and classify geometric shapes. • I can identify and represent the position of a shape following a reflection. • I can identify, describe and represent the position of a shape following a translation.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.2 5.4	5	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence. • Y3: add and subtract amounts of money to give change, using both £ and p in practical contexts. • Y3: Measure, compare, add and subtract lengths (m/cm/mm). • Convert between different units of measure e.g. kilometre to metre. • Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m	• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Identify: ○ angles at a point and one whole turn (360^{o}) ○ angles at a point on a straight line and half a turn (180^{o}) ○ other multiples of 90^{o} •
			I can…	• I can recall key facts in the context of money. • I can find totals using different combinations of coins. • I can add amounts of money. • I can subtract to find change. • I can recall and represent key facts in the context of length. • I can convert between different units of measure. • I can measure and calculate perimeter. • I can solve problems relating to perimeter.	• I can estimate and compare angles using key facts. • I can use reasoning to identify angles within shapes.
Christmas Holidays					

Year 4 and 5 Spring Term

Measurement: Find every day opportunities convert units using place value understanding and knowledge of table facts. Practise mental strategies using facts, related derived facts, and place value knowledge such as adding 99, adding 0.99 , near doubles etc.
Throughout the year find opportunities for pupils to read **Roman numerals** to 1000 (M) and recognise years written in Roman numerals.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.6 5.6	10	Fractions	• Recognise and show using diagrams, families of common equivalent fractions. • 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. • 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. • Count up and down in hundredths; recognise that hundredths arise when dividing and object by a hundred and dividing tenths by ten. • Round decimals with one decimal place to the nearest whole number. • Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.	• Recognise the percent symbol (%) and understand that percent relates to the number of parts per hundred, write percentages as a fraction with the denominator hundred and as a decimal fraction. • 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 the denominator of digit 10 or 25. • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. • Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$). • 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
			I can…	• I can count in tenths. • I can add and subtract tenths. • I can round decimals to the nearest whole number. • I can count up in hundredths. • I can add and subtract hundredths. • I can count up in fractional steps. • I can add and subtract fractions with the same denominator. • I can recognise decimal and fraction equivalence.	• I can recognise and use tenths and hundredths. • I can recognise and use thousandths. • I can compare fractions. • I can recognise equivalent fractions. • I can round decimals with two decimal places to the nearest whole number and to one decimal place. • I can represent percentages. • I can solve problems which require knowing percentage and decimal equivalents.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.6 5.6	5	Geometry	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. • Identify acute and obtuse angles and compare and order up to two right angles by size. • Identify lines of symmetry in 2- D shapes presented in different orientations. • Describe positions on a 2-D grid as co-ordinates in the first quadrant. • Describe movements between positions as translations of a given unit to the left / right and up/down.	• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Draw given angles and measure them in degrees (^{0}). • Use the properties of rectangles to deduce related facts and find missing lengths and angles.
			I can…	• I can describe positions of triangles on a grid. • I can compare and classify quadrilaterals. • I can compare angles in different 2-D shapes	• I can recognise and estimate angles. • I can use a protractor to measure angles accurately. • I can draw given angles using a protractor. • I can use properties of rectangles to deduce missing lengths and angles.
	4.7 5.7	15	Addition and Subtraction Fractions Algebra	• Recognise the place value of each digit of a four-digit number (thousand, hundreds, tens and ones). • Order and compare numbers beyond 1000. • Round any number to the nearest 10, 100 or 1000. • Estimate and use inverse operations to check answers to a calculation. • Add and subtract numbers with up to 4 digits using formal written methods and subtraction where appropriate. • Solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why.	• Add and subtract whole numbers with more than 4 digits including using formal written methods (columnar addition and subtraction). • Add and subtract mentally with increasingly large numbers e.g. 12,462 – 2300 = 10,612. • 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. • Add and subtract fractions with the same denominator beyond one and multiples of the same number. • Solve problems involving number up to three decimal places.
			I can…	• I can compare and order four-digit numbers. • I can round to the nearest multiple of 10. • I can round to the nearest multiple of 100. • I can round to the nearest multiple of 1000. • I can use known facts to support mental strategies. • I can add numbers using formally written methods. • I can subtract numbers using formally written methods. • I can identify when to use mental strategies or a formal written method. • I can solve addition and subtraction two-step problems in context.	• I can add and subtract mentally. • I can choose efficient methods of calculating when adding and subtracting. • I can solve addition and subtraction problems in context. • I can add and subtract fractions. • I can solve measure problems involving fractions and decimals.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.9 **5.11**	5	Multiplication and Division	• Y3: Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables. • Count in multiples of 6,7, 9, 25 and 1000 from zero. • Recall multiplication and division facts for multiplication tables up to 12 x 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. • Solve problems involving multiplication 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.	• Multiply and divide numbers mentally drawing upon known facts. • 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. • 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. • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
			I can…	• I can recall and use multiplication and division facts. • I can multiply three numbers together. • I can use the grid method for multiplication. • I can divide by 1. • I can solve problems involving multiplication. • I can use place value, known and derived facts to multiply and divide mentally. • I can solve multiplication problems using known facts.	• I can multiply and divide numbers by 10, 100 and 1000. • I can solve problems involving multiplication and division using knowledge of factors and multiples. • I can multiply and divide numbers mentally drawing upon known facts. • I can multiply and divide numbers using a formal written method. • I can solve problems involving multiplication and division. • I can solve problems involving multiplication and division, including scaling by simple fractions.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.9 5.9	5	Fractions	• 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. • 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. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.	• Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • 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 of 25. • Read, write, order and compare numbers with up to three decimal places. • Solve problems involving number up to three decimal places.
			I can…	• I can find the effect of dividing by 10. • I can solve problems involving fractions to calculate quantities.	• I can multiply proper fractions by whole numbers. • I can compare and order fraction, decimal and percentage equivalents. • I can solve problems using knowledge of fraction and percentage equivalents. • I can solve problems involving numbers up to three decimal places.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.10 5.10 **5.8**	10	Addition and Subtraction with Statistics	• Order and compare numbers beyond 1000. • Round any number to the nearest 10,100 and 1000. • Solve number and practical problems that involve an understanding of place value and with increasingly large positive numbers. • Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	• Add and subtract mentally with increasingly large numbers. • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • 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. • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Solve problems involving number up to three decimal places. • Use all four operations to solve problems involving measure using decimal notation, including scaling. • Interpret negative numbers in context, count forwards and backwards with positive and negative numbers through zero. • Solve comparison, sum and difference problems using information presented in a line graph. • Complete, read and interpret information in tables.
			I can…	• I can compare and order numbers. • I can position and compare numbers on a number line. • I can recall related facts to 1000. • I can recall related facts to 10,000. • I can solve missing number problems using known facts, • I can solve comparison, sum and difference problems.	• I can add and subtract, deciding which operations and methods to use and why. • I can solve addition and subtraction problems in context, deciding which operations and methods to use and why. • I can add and subtract fractions. • I can count forwards and backwards with positive and negative numbers through zero. • I can interpret negative numbers in context. • I can read and interpret information in a line graph. • I can read and interpret information given within a table.
Easter Holidays					

Year 4 and 5 Summer Term

Measurement: Find everyday opportunities to convert units using place value understanding and knowledge of table facts. Practise mental strategies using facts, related derived facts, and place value knowledge. Develop independence and fluency with identifying calculations that can be done mentally or informally. Strategies include 'nearly numbers' ', 'near-doubles', place-value rounding and adjusting, key facts and derived facts, part-whole reasoning etc. Ensure that pupils recognise complements to 1000, and link to 10, 100, 1 and 0.1.

Throughout the year find opportunities for pupils to read **Roman numerals** to 1000 (M) and recognise years written in Roman numerals.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.11 **5.12**	15	Multiplication and Division	• Y3: Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by 10. • 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. • Recall multiplication and division facts for multiplication tables up to 12 x 12. • Solve problems involving multiplying and adding, including using 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.	• Identify multiples and factors, including 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. • Recognise and use square numbers and cube numbers and the notation for (^{2}) and (^{3}). • Solve problems involving multiplication and division and a combination of these, 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.
			I can…	• I can recall and use multiplication and division facts. • I can recall and use multiplication and division facts for the 11-multiplication table. • I can recall and use multiplication and division facts for the 12-multiplication table. • I can find the effect of dividing a one-digit number by 10. • I can find the effect of multiplying and dividing by 10. • I can find the effect of multiplying and dividing by 100. • I can solve problems involving multiplication and division. • I can solve problems involving division with remainders.	• I can identify prime numbers. • I can identify factors. • I can recognise and use square numbers and cube numbers. • I can solve problems using my knowledge of factors and multiples, squares and cubes.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives

	4.12
	5.13
	5.16
		5	Geometry	• 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.
				• Find the area of rectilinear shapes by counting squares.
				• Plot specified points and draw sides to complete a given polygon.
					• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
					• Y4: Describe positions on a 2-D grid as coordinates in the first quadrant.
					• 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.
					• Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
					• Draw given angles and measure them in degrees (^{o}).
					• Identify:
					  ○ angles at a point and one whole turn (360^0).
					  ○ angles at a point on a straight line and 1⁄2 a turn (180^0).
					  ○ Other multiples of 90^0 and link to fractions of a whole turn.
					• Use the properties of rectangles to deduce related facts and find missing lengths and angles.

			I can…	• I can find the area of rectilinear shapes. • I can compare and order angles. • I can compare and classify quadrilaterals and triangles. • I can compare and classify geometric shapes. • I can find the area of rectilinear shapes. • I can plot specified points and draw sides to complete a given polygon.	• I can distinguish between regular and irregular polygons. • I can plot points on a coordinate grid in the first quadrant • I can identify, describe and represent the position of a shape following a reflection or translation. • I can estimate and compare acute, obtuse and reflex angles. • I can draw given angles and measure them in degrees. • I can find missing angles using key facts. • I can properties of rectangles to deduce related facts and find missing lengths and angles.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.13 **5.15**	10	Addition and Subtraction with Statistics	• Add and subtract with numbers 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. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. • Count backwards through zero to include negative numbers.	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtract). • Add and subtract mentally with increasingly large numbers. • Use rounding to check answers and determine, in the context of a problem, levels of accuracy. • Solve addition and subtraction multi-step problems in contexts deciding which operations to use and why. • •
			I can…	• I can decide which operations and methods to use and why. • I can solve missing number problems. • I can solve addition and subtraction two-step problems. • I can count backwards through zero to include negative numbers, • I can solve comparison, sum and difference problems.	• I can solve addition and subtraction problem using an efficient method. • I can solve missing number problems. • I can read and interpret information in tables. • I can solve comparison, sum and difference problems using information presented in a line graph.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.14 **5.17**	10	Multiplication and Division	• Recall multiplication and division facts for multiplication tables up to 12 x 12. • 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 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.	• Multiply and divide numbers mentally drawing upon known facts. • Identify multiples and factors, including finding all factors pairs, prime factors and composite (non-prime) numbers. • Establish whether a number is prime up to 100 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 multiplications for two-digits. • 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, 1000. • Recognise and use square number and cube numbers, with the correct notation (^{2}) and (^{3}) • Solve problems involving addition, subtraction, multiplication and division including using their knowledge of factors and multiples, squares and cubes. • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.
			I can…	• I can recall and use multiplication and division facts. • I can multiply two-digit numbers by a one-digit number using formal written layout. • I can multiply three-digit numbers by a one-digit number using formal written layout. • I can use the formal written method of short division. • I can solve problems involving multiplication and division.	• I can multiply and divide numbers mentally drawing upon known facts. • I can use the short multiplication method. • I can use the long multiplication method. • I can use the short division method. • I can solve multiplication and division calculating efficiently. • I can solve multiplication and division problems efficiently. • I can identify multiples, factors and prime numbers. • I can recognise and use square number and cube numbers. • I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

A.M	Unit	Hours	Domain	Y5 National Curriculum Objectives	Y6 National Curriculum Objectives
	4.14 **5.16**	10	Fractions	• Recognise and show using diagrams, families of common equivalent fractions. • 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 and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$	• Compare and order 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. Write mathematical statements >1 as a mixed number. • Add and subtract fractions with the same denominator and multiples of the same number. • Recognise the per cent symbol (%) and understand that it relates to the 'number of parts per 100', and write percentages as a fraction with the denominator hundred, and as a decimal fraction. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Solve problems which require knowing percentage and decimal equivalents.
			I can…	• I can recognise and show equivalent fractions. • I can recognise and write fraction and decimal equivalents. • I can solve problem involving harder fractions to calculate quantities.	• I can compare and order fractions. • I can compare and order mixed numbers on a number line. • I can add and subtract fractions. • I can find a percentage of a number. • I can find a percentage of a number efficiently. • I can recognise percentage and decimal equivalences. • I can solve problems which require knowing percentage and decimal equivalents. • I can multiply proper fractions by whole numbers. • I can multiply proper fractions using knowledge of fraction and decimal equivalents.

A.M	Unit	Hours	Domain	Y4 National Curriculum Objectives	Y5 National Curriculum Objectives
	4.15 **4.16** **5.18**	10	Measurement	• Estimate, compare and calculate different measures, including money in pounds and pence. • 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 • Convert between different units of measure (e.g. kilometres to metres). • Estimate, compare and calculate with different measures. • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. • Solve simple measure problems involving fractions and decimals up to two decimal places. • Round decimals with one decimal place to the nearest whole number. • Compare numbers with the same number of decimal place (up to two decimal places)	• Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre). • Understand and use equivalences between metric units and common imperial units such as inches, pounds, pints. • Solve problems involving converting between units of time. • Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. • Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling. • Read, write, order and compare numbers with up to three decimal places. • Read and write decimal numbers as fractions (e.g. 0.71 = $\frac{71}{100}$). • Round decimals with two decimal places to one decimal place and to the nearest whole number. • Calculate and compare the area of rectangles (including square) and including standard units square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes. • Estimate volume (e.g. using $1cm^3$ blocks to build cubes and cuboids) and capacity (e.g. using water). • Complete, read and interpret information in tables, including timetables.
			I can…	• I can recall key facts. • I can calculate with money. • I can read and write time between analogue and digital 12-hour clocks. . • I can read, write and convert time between analogue and digital 24-hour clocks. • I can solve problems involving calculating time intervals. • I can solve simple measure problems involving fractions and decimals. • I can measure and calculate the perimeter of geometric shapes. • I can measure and calculate the perimeter of rectilinear shapes.	• I can estimate and convert units of measure. • I can relate fraction and decimals with measure. • I can solve problems involving measure including scaling. • I can solve problems in the context of measure. • I can calculate the area and perimeter of a range of rectangles. • I can estimate the volume. • I can read and interpret information in timetables.
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