The Eliot Bank and Gordonbrock Schools Federation

MATHEMATICS - YEAR 5 CURRICULUM OVERVIEW

Mathematics Curriculum Map

Year 5	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number **Place value**			Number **Addition and subtraction**		Number **Multiplication and division**			Statistics		Measurement **Perimeter**	Assess, review and consolidate
Spring	Number **Multiplication and division**			Number **Fractions**				Number **Decimals and percentages**			Measurement **Area**	Assess, review and consolidate
Summer	Number **Fractions**		Number **Decimals**		Geometry **Properties of shape**		Geometry **Position and direction**		Measurement **Converting units**		Measurement **Volume**	Assess, review and consolidate

Year-group objectives and Vocabulary

Year 6	Strand	Objectives	Vocabulary
	Number **Place value**	• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • 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 • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	Powers of 10, numbers to 1,000,000 order of magnitude
	Number **Addition, subtraction, multiplication and division**	• Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Add and subtract numbers mentally with increasingly large numbers • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • 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 numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally drawing upon known facts • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	Efficient written method Factor pairs, common factors , common multiples, composite numbers, prime number, prime factors,prime factor decomposition, square number, cubed number, formal written method, long multiplication/long division,quotient remainder,reciprocal, multiplicative reasoning

		• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	
	Number **Fractions, decimals and percentages**	• Compare and order fractions whose denominators are all multiples of the same number • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number • 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 • Read and write decimal numbers as fractions • 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 • Solve problems involving number up to three decimal places • Recognise the percent symbol (%) and understand that per cent 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 ½, ¼, ⅕, ⅖, ⅘ and those fractions with a denominator of a multiple of 10 or 25	Proper fractions, improper fractions, mixed numbers, mixed fraction, percentage %, half, quarter, fifth, two fifths, four fifths, ratio, proportion
	Measurement	• Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • 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	Volume, imperial units, metric units, area/perimeter of composite rectilinear shapes, scale Cubic centimetre, cubic metre, centitmetre squared

		standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes ● Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water] ● Solve problems involving converting between units of time ● Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	

	Geometry
	Properties of shape
		● Identify 3-D shapes, including cubes and other cuboids, from 2-D representations
		● Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
		● Draw given angles, and measure them in degrees (°)
		● Identify:
		    ○ angles at a point and one whole turn (total 360°);
		    ○ angles at a point on a straight line and ½ a turn (total 180°);
		    ○ other multiples of 90°
		● Use the properties of rectangles to deduce related facts and find missing lengths and angles
		● Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
			Regular and irregular polygons tetrahedron, polyhedron, octahedron icosahedron, dodecahedron

	Geometry **Position and direction**	● Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	Reflex angle, dimensions
	Statistics	● Solve comparison, sum and difference problems using information presented in a line graph ● Complete, read and interpret information in tables, including timetables	