

COATHAM CE PRIMARY SCHOOL MATHEMATICS

YEAR 5	Strands	Progression Focus	Weekly Summary
SPRING 1	NPV Number and Place Value DPE Decimals, percentages and their equivalence to fractions PRA Problem solving, reasoning and algebra	Place Value Focuses on developing a robust understanding of place value in larger whole numbers and in decimals; this is used to enable children to round any number to the nearest required power of ten.	Read, write and order numbers with up to 6 digits and understand the place value of each digit; place 6-digit numbers on a number line and find numbers between; solve place-value additions and subtractions with 6-digit numbers; understand place value in decimal numbers as tenths and hundredths; multiply and divide by 10/100/1000 using a place-value grid; understand place value in decimal numbers to 2-decimal places; place decimal numbers on a line; round two-place decimal numbers to nearest tenth and whole number; say the number a tenth or a hundredth more.
2	MAS Mental addition and subtraction PRA Problem solving, reasoning and algebra WAS Written addition and subtraction	Addition and subtraction Focuses on the rehearsal and development of mental calculation strategies for addition and subtraction.	Rehearse mental addition strategies for decimals and whole numbers; use counting on as a strategy to perform mental addition of 2-place decimals to the next whole number; solve missing number sentences; use mental strategies to solve multi-step word problems; use counting up as a strategy to perform written subtraction (Frog)
3	MMD Mental multiplication and division NPV Number and place value PRA Problem solving, reasoning and algebra	Multiplication and division Focuses on the rehearsal and development of mental calculation strategies for multiplication and division, and on identifying patterns and rules.	Use rules of divisibility to find if numbers are divisible by 2, 3, 4, 5, 9 and 10; identify prime numbers; revise finding factors of numbers; find squares and square roots of square numbers; finding patterns and making and testing rules; use mental multiplication and division strategies; relate mental division strategies to multiples of ten of the divisors.
4	PRA Problem solving, reasoning and algebra GPS Geometry; properties of shapes MEA Measurement STA Statistics	2D shapes; measures Focuses on exploring the properties of triangles, naming and identifying the different types and then on SI units of measure, reading scales and conversion problems.	Know properties of equilateral, isosceles and right-angles triangles; find that angles on a triangle have a total of 180°; sort triangles according to their properties; use scales to weigh amounts to the nearest half interval; convert from grams to kilograms and vice versa, from millilitres to litres and vice versa, and from meters to kilometres and vice versa; read scales to the nearest half division; understand that we measure distance in kilometres and miles; use ready reckoning to give approximate values of miles in kilometres and vice versa; draw line conversion graphs.

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5	WAS Written addition and subtraction MEA Measurement	Addition and subtraction Focuses on column addition of decimal numbers, and on mental subtraction of decimal numbers.	Use a written column method to add amounts of money in pounds and pence; add 2 place decimals using written column addition; subtract decimal numbers using counting up
6	GPS Geometry; properties of shapes PRA Problem solving, reasoning and algebra	Angles Focuses on the concept of angles as degrees of 'turn', and on comparison, identification and measurement of angles.	Use a protractor to measure and draw angles in degrees; recognise, use terms and classify angles as obtuse, acute and reflex; recognise that angles in a line total 180° and angles around a point total 360° ; identify and name parts of a circle including diameter, radius and circumference; draw circles to a given radius using a pair of compasses; relate angles to turns, and recognise that a 360° angle is a complete turn; use angle facts to solve problems related to turn
Assessment Week			

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SPRING 2			
1	WMD Written multiplication and division	Multiplication and Division Focus on the development of written methods for multiplication and division; division is linked to finding fractions of large amounts.	Use a written method (grid) to multiply pairs of 2-digit numbers; use short division to divide 3-digit numbers by 1-digit numbers, including those which leave a remainder.
2	WMD Written multiplication and division FRP Fractions, ratio and proportion	Multiplication and Division Focus on the development of written methods for multiplication and division; division is linked to finding fractions of large amounts	Find unit fractions and non-unit fractions of 3-digit numbers; use short multiplication to multiply 3-digit numbers by 1-digit numbers; begin to use short multiplication to multiply 4-digit numbers by 1-digit numbers.
3	GPS Geometry; properties of shapes PRA Problem solving, reasoning and algebra MEA Measurement	2D Shapes; angles; Measures Focuses on developing understanding of polygons and angles; particularly in relation to quadrilaterals; metric units are then revised and regularly used imperial units are taught	Understand what a polygon is; draw polygons using dotted square and isometric paper; revise terms obtuse, acute and reflex angles, perpendicular and parallel sides; recognise quadrilaterals as polygons and identify their properties; classify quadrilaterals; draw regular polygons and explore their properties; revise metric units of weight, capacity and length; understand that we can measure in imperial units and relate these to their instances in daily life.
4	FRP Fractions, ratio and proportion PRA Problem solving, reasoning and algebra	Fractions Focuses on revising proper fractions and equivalent fractions, and then moves on to mixed numbers and improper fractions; proper fractions are multiplied by whole numbers.	Place mixed numbers on lines; count up in fractions using equivalence; convert improper fractions to mixed numbers and vice versa; write improper fractions as mixed numbers and vice versa; multiply proper fractions by whole numbers
5	WAS Written addition and subtraction PRA Problem solving, reasoning and algebra		Solve subtraction of 4-digit numbers using written column subtraction (decomposition); add several numbers using written column addition; use column to solve problems.
Two Assessment Weeks			