

Whiteshill Primary School

Maths Long Term Plan

Year 6

Unit Focus	Lesson Objective	Subject Knowledge and Teaching Notes
Number and Place value	Read 7-digit numbers in words and write using numerals	
	Represent 7-digit numbers	
	Recognise the value of digits in 7-digit numbers	
	Partition 7-digit numbers in different ways	
	Identify 7-digit numbers on a number line	FIRST - Round numbers to 10, 100 and 1000 (need an input on this so use a maths meeting next time)
	Represent 7-digit numbers on a number line	
	Compare numbers up to 10,000,000	
	Order numbers up to 10,000,000	
	Round whole numbers to different degrees of accuracy	
	Understand and use negative numbers when working in context, such as temperature	
	Calculate intervals across zero	
Decimals	Identify the value of digits in decimal numbers up to 3 decimal places	
	Multiply decimals (up to 3dp) by 10, 100 and 1000	
	Divide decimals (up to 3dp) by 10, 100 and 1000	
	Multiply decimals (1 and 2d.p.) by a 1-digit number	

Addition, Subtraction,	Carry out addition calculations involving numbers up to 4	
Multiplication and	digits using mental strategies	
Division	Carry out subtraction calculations involving numbers up to 4	https://thirdspacelearning.com/blog/year-6-maths-reasoning-
	digits using mental strategies	questions-answers-ks2-sats/
	Solve multi-step problems involving addition and/or	Choose the operation and also whether it should be written or
	subtraction	mental
	Multiply a four-digit number by a two-digit number using	Maths meeting – divide 3-digit by 1-digit – use assessment for
	long multiplication	target chn
	Divide a three-digit number by a two-digit number using	
	short division with no remainder	
	Divide a three-digit number by a two-digit number using	
	short division with a whole number remainder	
	Divide a four-digit number by a two-digit number using short	
	division with a remainder expressed as a fraction	
	Divide a four-digit number by a two-digit number using short	
	division with a remainder rounding to two decimal places	
	Solve multi-step problems involving multiplication and	
	division, including interpreting the remainder in context	
	Carry out calculations involving mixture of addition and	
	subtraction or multiplication and division (BIDMAS)	
	Carry out calculations involving mixture of multiplication and	
	addition/subtraction (BIDMAS)	
	Carry out calculations involving mixture of division and	
	addition/subtraction (BIDMAS)	
	Carry out calculations involving all four operations (BIDMAS)	
	Carry out calculations involving all four operations and	
	indices (BIDMAS)	
	Find common multiples of two numbers	
	Find common factors of two numbers	
	Identify prime numbers	

Fractions, decimals and percentages	Use common factors to simplify fractions	
	Use common multiples to find equivalent fractions	Maths meeting in advance for EMc, AH, LW, ET, EH, GP,
	Compare and order fractions, including fractions > 1	Compare and order in different sessions.
	Know simple fractions, decimals and percentages	
	equivalences (e.g. 10%, 20%, 25%, 50%, 75%, 100%)	
	Find equivalences between fractions, decimals and	
	percentages	
	Add and subtract proper fractions (denominators not	
	multiples of each other) within the whole	
	Add proper fractions (denominators not multiples of each	
	other) beyond the whole (mixed number answer)	
	Add mixed number and proper fractions (denominators not	
	multiples of each other) fractions within and beyond the	
	whole (mixed number answer)	
	Add mixed numbers (denominators multiples of each other)	
	fractions within and beyond the whole (mixed number	
	answer)	
	Add mixed numbers (denominators not multiples of each	
	other) fractions within and beyond the whole (mixed number	
	answer)	
	Subtract proper fractions from mixed numbers, fractions	
	within and across the whole (denominators not multiples of	
	each other)	
	Subtract mixed number from mixed numbers (same	
	denominators), fractions within and across the whole	
	Subtract mixed number from mixed numbers (same	
	denominators), fractions across the whole	
	Subtract mixed number from mixed numbers (denominators	
	multiples of each other), fractions within the whole	
	Subtract mixed number from mixed numbers (denominators	
	multiples of each other), fractions across the whole	

	Subtract mixed number from mixed numbers (denominators multiples of each other), fractions within and across the	
	whole	
	Multiply simple pairs of proper fractions	
	Divide fraction by whole number	
	Find 10%, 25%, 50% and 75% of an amount	
	Find simple percentages of an amount (multiples of 10% and 5%)	
	Find complex percentages of an amount (eg 17%, 28%, 63%)	
	Solve problems involving the use of percentages to make comparisons	
Ratio and Proportion	Solve simple ratio problems - find the value of the parts, given the whole	
	Solve simple ratio problems - find the value of the whole and	
	parts, given one part	
	Use a scale factor to solve problems involving similar shapes	
	Use scales to solve problems involving maps, such as finding distances	
Algebra	Use simple formulae expressed in words (e.g. time needed to	
	cook a chicken: allow 20 minutes plus 40 minutes per kilogram)	
	Know the basic rules of algebraic notation	
	Express and solve missing number problems algebraically	
	Find all combinations of two variables that solve a missing	
	number problem with two unknowns	
	Find pairs of numbers that satisfy an equation with two	
	unknowns e.g. a + b = 15	
	Recognise and describe a linear sequence	
	Find the next terms in a linear sequence	

	Find a missing term in a linear sequence	
	Generate a linear sequence from its description	
Properties of Shape	Find missing angles where they meet at a point	
	Find missing angles where they meet on a straight line	
	Find missing angles where they are vertically opposite	
	Find unknown angles in a triangle	
	Find unknown angles in an isosceles triangle when only one angle is known	
	Find unknown angles in a quadrilateral	
	Find unknown angles in regular polygons	
	Classify 2D shapes using given categories; e.g. number of sides, symmetry	
	To use a protractor to find the size of angles	
	Acute, obtuse, reflex – by subtracting difference	
	Draw 2-D shapes given angles	
	Draw 2-D shapes given dimensions and/or angles	
	Recognise and describe 3-D shapes	
	Classify 3-D shapes including cylinders, cones and spheres	
	Draw nets of 3-D shapes	
	Construct diagrams of 3-D shapes on isometric paper	
	Know the names and relationships of the parts a circle	
Measurement:	Use coordinates to describe the position of a point in all four	
Position and Direction	quadrants	
	Use coordinates to plot the position of a point in any of the	
	four quadrants	

	Draw and translate simple shapes	
	Carry out a reflection using one of the axes as a mirror line	
Measurement:	Convert between non-adjacent metric units length and mass	
Converting Units	from the smaller unit to the larger unit; e.g. centimetres to kilometres	
	Convert between non-adjacent metric units length and mass	
	from the larger unit to the smaller unit; e.g. kilometres and centimetres	
	Convert between non-adjacent time units; e.g. hours to seconds	
	Solve problems involving converting between measures including miles and km	
Measurement: Area and Volume	Recognise that shapes with the same areas can have different perimeters and vice versa	
	Calculate the area of a parallelogram	
	Calculate the volume of cuboids, including cubes	
Statistics	Interpret pie charts	
	Construct a pie chart by measuring angles	
	Understand the meaning of 'average' and calculate the mean	
	of a set of discrete data	
	Interpret the mean of a set of discrete data	