Poulton Lancelyn

Maths

Long Term Plan

Y5

2022/23

	W1 - Number	W2 -Number	W3-	W4- Number	W5/6- Number	Week 7 -Operations
A1	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)**.** Compare numbers with the same number of decimal places up to two decimal places.	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 eg 5-digit – 4-digit multiple of 10. Add and subtract numbers with 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.	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. Multiply and divide numbers mentally drawing upon known facts.	Read, write, order and compare numbers to at least 100,000 and determine the value of each digit. Count forwards or backwards in steps of powers of 10 for any given number up to 100, 000. Read, write, order and compare numbers with up to three decimal places.	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. Read, write, order and compare numbers with up to three decimal places. Use a number line to identify negative numbers and begin calculating with them. To develop an understanding of number and number patterns to recognise and complete sequences. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	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 problems involving numbers up to three decimal places. Use inverse operations to check the answers to addition and subtraction calculations.

	W1 - Operations	W2- Statistics	W 3/4- Factors and Multiples	W5- Shape	W6- Shape	W7- Number
A2	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 problems involving numbers up to three decimal places. Use inverse operations to check the answers to addition and subtraction calculations.	Extract information from tables to solve a range of problems involving four operations. Read line graphs with a range of scales and interpret the information to solve simple sum and difference problems. Develop the reading and interpretation of line graphs with more complex scales, including dual line graphs, to solve simple sum and difference problems. Draw simple line graphs from data that is given in a table.	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. Recognise and use square numbers and cube numbers, and the notation for squared and cubed.	Find the perimeter of rectilinear shapes through measurement in centimetres. Calculate the perimeter of rectilinear shapes in centimetres and metres. Use a shape's perimeter to derive its dimensions.	Consolidate their knowledge of the area of rectangles by calculating area using square centimetres and square metres from scale drawings. Explore the relationship between a rectangle's length and width, and its area. Link the number of squares to related arrays and use multiplication to derive the area. Apply the knowledge of area to estimate the area of irregular shapes.	Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 Round decimals with two decimal places to the nearest whole number and to one decimal place.

	W1- Operations	W2-Operations	W3- Operations	W4- Fractions	W5 Fractions	W6- Fractions	
Sp1	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 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 whole numbers and those involving decimals by 10, 100 and 1000. Multiply 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. Divide whole numbers and those involving decimals by 10, 100 and 1000. Divide numbers mentally drawing upon known facts.	Further develop knowledge of multiplication and division with remainders to solve problems with more than one step.	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 (less than one).	Add fractions with the same denominator and denominators that are multiples of the same number.	
	W1- Fractions	W2- Fractions	W3- Fractions	W4- Fractions	W5- Number		
Sp2	Subtract fractions with the same denominator and denominators that are multiples of the same number.	Solve multi-step addition and subtraction word problems using fractions and mixed numbers. Interpret what is being asked, write the problem as a number sentence and achieve an answer in context.	Multiply a whole number and a unit fraction together. Convert between improper fractions and mixed numbers to achieve answers in the simplest form. Multiply a whole number and a mixed number together using various methods.	Use fractions as operators and look at comparing different methods while deciding which is most efficient. Use the knowledge of fractions to solve problems that require more than one step.	To read and write decimal numbers (up to two decimal places). This will include learning to read and write decimal numbers greater than 1. Read and write more complex decimal numbers as fractions, including numbers greater than 1.		
	W-1 Number	W-2 Number	W-3 Number	W- 4 Number	W-5 Number	W6- Geometry	
Su1	Write any number up to three decimal places as a fraction. To understand the link between tenths, hundredths and thousandths and write a thousandth as a decimal (0·001). Compare decimals by using their knowledge of place value or converting them into fractions. Round decimals to the nearest whole number and to one decimal place.	Understand percentages represented in a range of different diagrams. Children will understand that per cent means 'number of parts per 100'. Write percentages as a fraction with denominator 100, and as a decimal. It will be made explicit that percentages, decimals and fractions are all different ways of expressing proportions. Convert between fractions, decimals and percentages. Solving problems relating to equivalent fractions decimals and percentages.	Add and subtract decimals less than one using the written column method. Understand what needs to be added to another decimal to the whole. Add numbers less than one where the total is greater than one. Add two numbers that have the same number of decimal places, such as 2.56 + 7.75.	Use the column method to subtract decimals in the context of taking away or finding the difference. This will include examples where an exchange is required or children must identify the mistake in a calculation. Add and subtract decimal numbers with up to 4 digits from whole numbers. They will perform exchanges when there are zeros in the columns. Use the understanding of decimal numbers to count and complete decimal sequences.	Learn strategies for solving problems involving adding and subtracting numbers with up to three decimal places. Learn how to solve more complex addition and subtraction multistep problems. Interpret and identify the information necessary to solve the problem. Multiply and divide decimals by 10, 100 and 1,000.	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°	

				Describe the rule that the sequence follows and use it to calculate missing terms.			
	W1- Geometry	W2-Geometry	W3- Geometry	W4- Measure	W5-Measure	W6- Measure	W7- Revision
Su 2	Use reasoning about shapes to calculate missing angles and length Use reasoning based on their properties of known lines, angles and shapes. Develop an understanding of parallel and perpendicular lines in relation to one another in shapes and patterns.	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	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.	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre). Solve problem converting between units.	Solve problems converting between units of time, including those where there is a remainder. Use timetables, applying their knowledge of 24-hour times to read arrival and departure times and calculate durations. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water].	