Maths Medium Term

Year: 6 ***Term: Spring*** ***Teacher: Mrs Pemberton***

Week	***Topic***	***Objectives***
Week 1 (2 days)	MEASURES – TIME TO SOLVE PROBLEMS STATISTICS TO SOLVE PROBLEMS	• Read, write and convert time between analogue and digital 12 hour clock and 24 hour clock • Solve problems involving converting between units of time e.g. seconds and minutes, half past 12 and 13:30 • Complete, read and interpret information in tables, including timetables – link to 24 hour clock • Understand and use approximate equivalences between metric and common imperial units such as pints • Revise continuous and discrete data. Read and understand scales, including estimating points that are between the numbers marked on the scales
Week 2	STATISTICS TO SOLVE PROBLEMS NUMBER AND PLACE VALUE TO SOLVE PROBLEMS	• Interpret line graphs and use these to solve problems • Begin to link pie charts to angles e.g. 360 degrees, fractions and percentages • Begin to interpret pie charts and use these to solve problems • Read, write, order and determine the value of each digit for numbers up to 10 000 000 • Round any whole number to the nearest 10, 100, 1 000 or 10 000 using a number line • Order and identify the value of each digit in numbers to three decimal places
Week 3	NUMBER AND PLACE VALUE TO SOLVE PROBLEMS	• Round decimals with three places to the nearest whole number or to one decimal place • Order and compare positive and negative numbers– on a number line • Use negative numbers in context and calculate intervals across zero • Generate and describe and extend or complete number sequences • Solve problems that involve all of the above
Week 4	ADDIITON AND SUBTRACTION	• Solve addition multi-step problems in contexts, deciding which operations and methods to use and why • Subtract whole numbers and decimals using a formal written method • Use inverse to check answers to calculations

	TO SOLVE PROBLEMS	• Express missing number problems algebraically • ALGEBRA– find pairs of number that satisfy number sequences involving two unknowns e.g. x+y= 1.5 • Know how to calculate and interpret the mean as an average
Week 5	MULTIPLICATION AND DIVISION TO SOLVE PROBLEMS	• Revise multiplying and dividing by 10, 100 and 1000 including with decimals • Multiply numbers with up to 4 digits by a two-digit whole number using a formal written method of long multiplication. • Multiply one-digit numbers with up to two decimal places by whole numbers • ALGEBRA– find pairs of number that satisfy number sequences involving two unknowns e.g. a x b= 36 • Express missing number problems algebraically • Divide numbers up to 4 digits by a two-digit number using a formal written method of short division where appropriate • Extend to division of numbers up to 4 digits by a two-digit whole number using a formal written method of long division • Interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
Week 6	RATIO AND PROPORTION TO SOLVE PROBLEMS	• Understand ratio as unequal grouping or sharing • Understand proportion as scaling up or down • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
Week 7	USE ALL FOUR OPERATIONS TO SOLVE PROBLEMS	• Use their knowledge of the order of operations (BODMAS) to solve problems involving a combination of addition, subtraction, multiplication and/or division • Solve problems involving addition, subtraction, multiplication and /or division
Week 8 & Week 9	FRACTIONS TO SOLVE PROBLEMS	• Revise how to use common factors to simplify fractions • Revise how to use common multiples to turn two or more fractions to the same denomination • Revising identifying prime numbers. • Revise how to compare and order fractions (such as 2/3, 3/4 and 5/6 by converting them to fractions with the same denominator), including fractions >1 (including on a number line) • Add fractions with different denominators • Subtract fractions with different denominators

		• Write a mixed number e.g. $1\frac{1}{5}$ and explain its meaning • Write an improper fraction e.g. 11/6 and explain its meaning • Convert mixed numbers to an improper fractions and vice versa • Convert an improper fraction answer to a mixed number, e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$ • Solve problems involving fractions If appropriate: • Extend to adding mixed numbers, using the concept of equivalent fractions • Extend to subtracting mixed numbers, using the concept of equivalent fractions • Extend to multiplying pairs of unit fractions, writing the answer in its simplest form (using diagram or manipulatives) • Extend to dividing a unit fraction by a whole number (using diagrams or manipulatives)
Week 9 Cont'd	PERCENTAGES TO SOLVE PROBLEMS	• Recall and use equivalences between simple fractions, decimals and percentages • Find decimal equivalents for simple fractions • Find simple percentages of amounts • Use percentages for comparison • Solve problems involving the calculation of percentages
Week 10	SHAPE, POSITION AND DIRECTION TO SOLVE PROBLEMS	• Describe positions on a coordinate grid (first quadrant) • Describe positions on the full coordinate grid (all four quadrants) • Identify, describe and represent the position of a shape following a reflection using the appropriate language, and know that the shape has not changed • Identify, describe and represent the position of a shape following a translation, using the appropriate language, and know that the shape has not changed • Recognise, describe and build simple 3-D shapes, including making nets. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

Week 11	SHAPE, POSITION AND DIRECTION TO SOLVE PROBLEMS	• Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • Solve problems with shapes and /or position and direction
Week 12	REVISION	Revision of topics requiring further work – to be identified