River View Primary School		
Mathematics	**Year 6**	**Spring**

What will I know by the end of the unit?

Ratio

Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving the calculation of percentages and the use of percentages for comparison. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Algebra

Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.

Decimals

Identify the value of each digit in numbers given to three decimal places. Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two-decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy.

Fractions, Decimals and Percentages

Associate a fraction with division and calculate decimal fraction equivalents. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Area, Perimeter and Volume

Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³) and extend to other units, for example mm³ and km³.

Statistics

Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average.

Technical Vocabulary

ratio	shows how much of one thing there is compared to another
proportion	a comparison of two numbers that each represent the parts of a whole; how much of one thing there is in relation to the whole amount of something
scale factor	when a shape is enlarged and each side is multiplied by the same number
multiple	the product of a given number multiplied by another number
algebra	used when we do not know the exact numbers in a calculation; letters are used to represent unknown values
formulae	a rule that uses letters to represent amounts which can be changed
equation	a statement of equality between two expressions
equivalent	fractions, decimals and percentages are equivalent if the value, proportion, or quantity they represent is the same
decimal place	the position of a digit to the right of the decimal point in a decimal number
area	the amount of space within a perimeter
perimeter	the length of the distance around the boundary of the shape
volume	the amount of space the object takes up
pie chart	a graph using a divided circle where each section represents a percentage of the total
line graph	used to represent continuous data which changes over time
mean	the total of the numbers divided by how many numbers there are in the set