

**River View Primary School**

**Mathematics**

**Year 6**

**Autumn**

**What will I know by the end of the unit?**

**Place Value**

Read and write numbers to at least 10,000,000 and determine the value of each digit. Order and compare numbers to at least 10,000,000. Round any whole number to the required degree of accuracy. Use negative numbers in context and calculate intervals across zero. Solve number and practical problems that involve all of the above.

**Four Operations**

Perform mental calculations, including with mixed operations and large numbers. Use knowledge of order of operations to carry out calculations involving the four operations. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Identify common factors, common multiples and prime numbers. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Multiply multi-digit numbers up to four-digits by a two-digit whole number using the formal written method of long multiplication. Divide numbers up to four-digits by a two-digit whole number using the formal written method of long division and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context. Divide numbers up to four-digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Perform mental calculations, including with mixed operations and large numbers. Solve problems involving addition, subtraction, multiplication and division. Use knowledge of the order of operations to carry out calculations involving the four operations.

**Fractions**

Use common factors to simplify fractions. Use common multiples to express fractions in the same denomination. Compare and order fractions including fractions  $> 1$ . Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form. Divide proper fractions by whole numbers.

**Converting Units**

Recognise, read and write all metric measurements for length, mass and capacity. Convert between metric units for length, mass and capacity. Solve measurement problems in context. Find approximate conversions between miles and kilometres. Explore the relationship between imperial and metric measures and use the facts to perform related conversions.

**Technical Vocabulary**

<b>integer</b>	a negative or positive whole number
<b>addend</b>	a number which is added to another
<b>sum</b>	the result when two or more numbers are added together
<b>minuend</b>	a quantity or number from which another is to be subtracted
<b>subtrahend</b>	a quantity or number to be subtracted from another
<b>difference</b>	the result of subtracting one number from another
<b>multiple</b>	the product of a given number multiplied by another number
<b>factor</b>	a number which will divide exactly into another number
<b>product</b>	the result when two or more numbers are multiplied
<b>dividend</b>	a number to be divided by another number
<b>divisor</b>	a number by which another number is divided
<b>quotient</b>	the result when one number is divided by another number
<b>square number</b>	the product of a number multiplied by itself
<b>cube number</b>	the product of a number multiplied by itself twice
<b>composite number</b>	a number with more than two factors
<b>prime number</b>	a number with only two factors, 1 and itself
<b>numerator</b>	the number above the line in a fraction
<b>denominator</b>	the number below the line in a fraction