Year 6 – Autumn Overview

Autumn	Number Place Value including decimals	Addition and subtraction whole numbers and decimals	Multiplication and Division of whole numbers and multiplication of decimals	Measures	Geometry - Angles, 3D shape
	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. Identify the value of each digit in numbers given to three decimal places Round any whole number to a 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	practise addition and subtraction, for larger numbers, using the formal written methods of columnar addition and subtraction Perform mental calculations, including with mixed operations and large numbers. Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	practise multiplication and division for larger numbers, using the formal written methods of short and long multiplication, and short and long division Multiply multi-digit numbers up to 4 digits by a 2 digit number using the formal written method of long multiplication. Divide numbers up to 4 digits by a 2 digit whole number using the formal written method of long division Divide numbers up to 4 digits by a 2 digit number using the formal written method of short division, interpreting remainders according to context. Perform mental calculations, including	Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places. use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate convert between miles and kilometres identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. 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	draw 2-D shapes using given dimensions and angles 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 recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius

| | | | with mixed operations and large numbers.
Solve problems involving multiplication and division

explore the order of operations using brackets; use their knowledge of the order of operations to carry out calculations involving the four operations

identify common factors, common multiples and prime numbers | calculate the area of parallelograms and triangles

calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]. | |