Year Group	6	Subject	Maths	Taught in	Autumn
Title	Chapter 1 - Place Value				
Summary	Children deepen their place value understanding by working with numbers up to 10 million.				
Key Skills	- Reading and writing Numbers to 10 million - Understand the value of a digit in a number up to 10 million - Comparing and ordering numbers to 10 million - Place value to 1 million - Rounding numbers to the nearest million, 100,000, 10,000, 1,000 and 100 - Rounding numbers up to the nearest 10 million - Understanding vocabulary ascending/descending and synonyms of this				
Prior Learning	- Reading, writing, comparing and rounding numbers up to 1,000,000				

Year Group	6	Subject	Maths	Taught in	Autumn
Title	Chapter 2 - Four operations on Whole Numbers				
Summary	Children work on the core strategies for calculating with the four strategies, including appropriate mental and written strategies.				
Key Skills	- Use BIDMAS to order operations in simple calculation - Multiplying by two-digit numbers using long multiplication - Dividing by two-digit numbers using mental strategies and short division. - Finding common multiples of 2 or numbers and use to solve problems. - Finding common factors of 2 or more numbers - Finding prime numbers by identifying that they have exactly two factors - Lowest Common Multiples, Highest Common Factors, understand the link between factors, prime numbers, square numbers and composite - Develop mental strategies for addition, subtraction, multiplication and division - Apply the above to problem solving, understand how to break down the problem and how to approach 2 and multi-step problems				
Prior Learning	- Taught addition & subtraction and multiplication & division as separate units. Multiplying by 2-digit numbers and dividing by 1-digit numbers, including those with a remainder				

Year Group	6	Subject	Maths	Taught in	Autumn
Title	Chapter 3 - Fractions				
Summary	Children learn to perform all four calculations with fractions, deepening their understanding of equivalence or ordering fractions.				
Key Skills	- Simplifying fractions by finding a common factor - Comparing and ordering fractions by finding equivalent denominators and using inequality signs - Adding and subtracting fractions by finding common denominators in both fractions - Multiplying fractions together and interpreting the answer - Represent and show how to divide a fraction by a whole number - Divide a fraction by multiplying by the reciprocal - Mental multiplication and division				
Prior Learning	- Compare and ordering fractions, adding and subtracting fractions and multiplying by whole numbers				

Year Group	6	Subject	Maths	Taught in	Autumn
Title	Chapter 4 - Decimals				
Summary	Children relate decimal understanding to fractions and learn to use decimals within the four calculation strategies.				
Key Skills	- Writing and reading decimals numbers up to thousandths - Compare and order decimal numbers using inequalities - Dividing whole numbers to produce a decimal in context of measurement - Writing fractions as decimals and understand conversions (halves, quarters, fifths, tenths, hundredths, thousandths) - Addition and subtraction integers and decimals - Multiplying decimal by an integer using informal and formal strategies - Multiplying a decimal by a 2-digit number - Divide a decimal by whole number using short division - Divide a decimal by a 2-digit whole number - Understand how to round numbers to 1 and 2 decimal places - Multiply and divide by 10,100,1000 fluently - Convert fluently between decimals, fractions and percentages				
Prior Learning	- Reading, writing and comparing decimals. Addition, subtraction and rounding as well as writing a decimal as a fraction.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 5 - Measurements				
Summary	Children focus on converting units of measurement using fractions and decimals. Pupils begin by converting units of length and distance followed by exploring units of mass, volume and time.				
Key Skills	- Converting units of length, mass, volume and time including measures using decimals and fractions - Understand appropriate measures for different amounts/lengths etc - Convert fluently between units of measure				
Prior Learning	- Understand and use a 12 hour clock/24 hour clock in time - Multiply and divide by 10,100,1000 fluently				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 7 - Percentage				
Summary	Children explore how to calculate percentage of numbers and quantities and use this to solve problems in context.				
Key Skills	- Find 10% 1% and 50% and use this to find other percentage of an amount - Using percentage to compare - Basic conversion FDP - Mental multiplication and division by 10, 100 - Finding the percentage of a number - Using percentage to compare				
Prior Learning	- Comparing quantities and finding percentages. Interpret a percentage as a fraction of an amount.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 8 - Ratio				
Summary	Children compare quantities, including numbers, objects, fractions and mass before moving on to solving problems in context.				
Key Skills	- Comparing quantities - Comparing numbers - Solving word problems - Use of bar models - Find common multiples - Simplify numbers to their simplest forms				
Prior Learning	- some prior knowledge through the use of bar models in solving relevant word problems				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 9 - Algebra				
Summary	Children earn some of the conventions of algebra in the context of patterns and real-life problems. Children write simple expressions using the four operations and fractions, while continuing to look for patterns and determine rules.				
Key Skills	- Describing a pattern - Writing algebraic expressions - Writing formulae - Using formulae - Solving equations - Understand rules of algebra, a letter next to a number x.use of brackets - Find the nth term in a pattern - Solve simple problems using formulae - Use bar models and other pictorial representations				
Prior Learning	- Identifying number patterns and missing numbers				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 10 - Area and perimeter				
Summary	Children explore how to calculate the area of rectangles, triangles and parallelograms				
Key Skills	- Finding the area and perimeter of rectangles - Finding the area of parallelograms - X skills - Use the correct units - Find the areas of parallelograms/triangles - Name different triangles and different quadrilaterals - Find edges, vertices and faces				
Prior Learning	- Finding the area and perimeter of rectilinear shapes, using both scale diagrams and estimation the area of a figure.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 11 - Volume				
Summary	Children develop their understanding of volume as it relates to cubes and cuboids				
Key Skills	- Finding the volume of cubes and cuboids - Solving problems involving the volume of solids - Use of multilink to find the volume - Estimation - Use formulae to find the volume - Solve problems				
Prior Learning	- Find and compare the volumes of solids, find and compare capacity of rectangular boxes, estimate volume and capacity and solve contextual problems.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 12 - Geometry				
Summary	Children will investigate angles on their own, in word problems and in shapes				
Key Skills	- Investigating vertically opposite angles - Investigating angles in triangles - Investigating angles in quadrilaterals - Solving problems involving angles in triangles and quadrilaterals - Naming parts of a circle - Solving problems involving angles in a circle - Draw quadrilaterals/triangles - Draw nets of 3 D shapes - Solve problems involving angles and triangles - Understand all associated vocabulary - Understand all angle rules - Use a protractor/compass - Measure and draw accurately - Understand circumference, ratio and diameter, find ratio and diameter - Make paper nets with and without a template				
Prior Learning	- Identify, draw and measure different types of angles, find unknow angles both on a straight line and in rectilinear shapes and identify regular polygons.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 13 - Position and movement				
Summary	Children work with polygons on coordinate grids. They differentiate between translation and reflection before moving on to express movement using algebra.				
Key Skills	- Showing negative numbers - Describing position - Drawing polygons on a coordinate grid - Describing translations - Describing reflections - Understand and use negative numbers - Use all four quadrants - Describe translations of shapes by accurately using co-ordinates - Visualise shapes from a starting point and draw them - Plot points on 0.5 coordinates - Use squares to describe reflections				

Prior Learning	- Use algebra to find missing coordinates
	- Write the coordinates of points, describe translations and reflections and find the position of a shape after translation or reflection.

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 14 - Graphs and Averages				
Summary	Children learn to present and interpret information in different ways.				
Key Skills	- Understanding averages - Calculating the mean - Showing information on graphs - Reading pie charts - Reading line graphs - Converting miles into kilometres - Reading line graphs - Mental addition and division - Mental addition and division - Understand the difference between metric and imperial measurements - Use approximations to make estimates - Understanding of co-ordinates - Solve problems - Use different pictorial representations to represent data - Use bar models to interpret graphs - Work with decimals and fractions to find data				
Prior Learning	- Read and interpret information in a table and from a line graph.				

Year Group	6	Subject	Maths	Taught in	Spring
Title	Chapter 15 - Negative numbers				
Summary	Adding and subtracting negative numbers Using negative numbers				
Key Skills	- Number line with negative numbers - Use of a number line with negative numbers - Understand the rules of adding and subtracting negative numbers - Solving problems				
Prior Learning	- Negative number patterns and temperature.				