Year 5 Maths Overview

	Autumn Term
Week 1	**Number and Place Value:** **Numbers to 1 000 000** In this unit, pupils will be looking at numbers and their place value to 1 000 000. The unit begins reviewing how to read and write numbers to 100 000, quickly moving onto numbers to 1 000 000. Time is spent using concrete materials to represent numbers to 1 000 000, including place-value counters and place-value charts. Pupils then compare numbers to 1 000 000 using their knowledge of place value in addition to bar model supports to assist them. Pupils complete the unit by making number patterns and rounding numbers to the nearest 10, 1000, 10 000 and 100 000.
Week 2	
Week 3	
Week 4	**Calculations:** **Addition and Subtraction** This unit covers addition and subtraction. The unit starts off with simple addition before moving on to addition where renaming is required. Subtraction is also covered in a similar way where simple subtraction is mastered before moving to subtraction where renaming is required. Once pupils master addition and subtraction, they start to look at problem-solving questions and practice using bar models. This unit uses three different ways to show addition and subtraction visually. This will help pupils develop flexibility, however, some pupils may need additional support and time in order to be able to use all of the methods fluently.
Week 5	
Week 6	**Calculations:** **Multiplication and Division** In this unit, pupils are multiplying and dividing 3- and 4-digit numbers by single- and double-digit numbers. The unit begins by finding and defining multiples and factors and common factors. Pupils begin to work with prime numbers and determine what makes a number prime or composite. After this, they work with square and cube numbers before moving on to multiplying by 10, 100 and 1000. When multiplying, pupils are encouraged to use a variety of methods, including: number bonds, column methods and the grid method. Number bonds are used to represent multiplicative word problems. Pupils then move on to multiply by 2-digit numbers before beginning to divide by 10, 100 and 1000. The unit ends as pupils learn to divide, giving rise to remainders using multiple methods, including number bonds and long and short division.
Week 7	
Week 8	
Week 9	

Week 10	**Calculations:** **Word Problems** In this unit, pupils are solving word problems that involve multiple steps and a variety of operations. Pupils begin the unit by simply choosing the correct operation before moving onto representing the key information using bar models. Applying the strategies learned in previous units is key in solving the challenges. The unit ends with complex representations of numbers and change using advanced bar models.
Week 11	**Statistics:** **Graphs** In this unit, pupils read and interpret information in tables and line graphs. First pupils read and interpret information presented in a table showing flights between Singapore and London. Next, they are required to use the data to answer questions, however the data has restrictions and must be sorted. The final lesson on tables leaves out key information, such as omitting a train time to indicate the train does not stop at a specific station. Then the pupils look at line graphs, beginning with a single line to represent a given set of data, followed by constructing line graphs that have more than one data set to represent.
Week 12	

Year 5 Maths Overview

	Spring Term
Week 1	**Fractions, Decimals and Percentages:** **Fractions** This unit develops pupils' ability to handle more diverse problems involving fractions, including dividing and multiplying fractions by whole numbers. To begin the unit, pupils divide whole numbers by whole numbers, giving rise to fractions. Pupils then show improper fractions and mixed numbers using pictures. As they progress through the unit, they find equivalent fractions, compare and order fractions and utilise the number bond strategy, known as number pairs, in their work with fractions. Next, pupils review adding fractions, with a focus on fractions with different denominators and fractions that create improper fractions and mixed numbers. Then they subtract fractions that are different, finding common denominators and subtracting mixed numbers and improper fractions. At the end of the unit, pupils begin to multiply fractions by whole numbers and multiply mixed numbers by whole numbers. Finally, pupils will look at solving word problems that require multiple steps and bar model representations.
Week 2	
Week 3	
Week 4	
Week 5	**Mid-Point Assessments** Pupils will complete the mid-point assessments with the results shared at parents evening and used to support setting pupils their next targets.
Week 6	**Fractions, Decimals and Percentages:** **Decimals** In this unit, pupils explore decimals and begin by learning to read and write decimal numbers. This is followed by comparing decimal numbers to find which is greater and smaller. Pupils then add and subtract decimals before turning decimals into fractions. The unit ends with pupils rounding decimals to the nearest whole number and decimal position.
Week 7	
Week 8	
Week 9	**Fractions, Decimals and Percentages:** **Percentages** This unit covers the expectations in Year 5 for percentage. It begins with comparing quantities and exposing percentage as an amount out of 100. The unit finishes by having pupils convert fractions to hundredths, both by expanding fractions and by simplifying them.

Week 10	**Geometry:** **Angles** In this geometry unit pupils explore angles: measuring angles, the investigation of angles on a line/point and drawing angles, before moving onto using angles as a descriptor for common shapes. The unit ends with pupils solving problems involving angles and investigating angles inside regular polygons.
Week 11	
Week 12	

Year 5 Maths Overview

	Summer Term
Week 1	**Geometry:** **Position and Movement** In this unit, pupils are exploring position and movement. First, they are naming and plotting points on a grid before moving onto the translation of a shape. They are then required to describe the movement of a shape on a grid as the first step in describing reflections. The unit ends with pupils looking at and describing reflections across a mirror line.
Week 2	**Measurement:** **Units of Measure** In this unit, pupils are exploring the measurement of mass, temperature, time and length. The unit begins with pupils converting units of length from millimetres to centimetres and from centimetres to metres. They quickly move on to converting metres to kilometres before looking at converting imperial measures to metric measures. Pupils explore converting units of mass in the same manner, finishing with imperial and metric conversions. They look at units of time in days, weeks, months and years, then in seconds, minutes and hours. Lastly, the unit looks at temperature and how to use a vertical number line (thermometer). The unit ends with a very challenging problem about changing lengths.
Week 3	
Week 4	
Week 5	**Measurement:** **Area and Perimeter** In this unit, pupils will be extending their knowledge of perimeter and area. It begins with pupils finding the perimeter of a polygon constructed from other polygons. They then look at constructing shapes with the same perimeter but a different area. Pupils begin to explore scale diagrams to determine the perimeter of shapes before moving onto exploring area using concrete materials. When they are familiar with the concept of area, they begin looking at area on square grids. Pupils will be using their understanding of polygons to calculate the area of those that are not 'regular polygons'. As the unit progresses, they measure area in a variety of ways, determining the area of shapes from familiar shapes and using estimation to support their understanding.
Week 6	
Week 7	
Week 8	**Measurement:** **Volume**

Week 9	In this unit, pupils are exploring volume. First, they learn about the volume of solids and how to use cubes to determine volume. Then they look at the volume of specific shapes such as rectangular boxes. The term 'capacity' is revisited, which helps pupils differentiate between 'volume' and 'capacity'. Next, they learn to convert between different metric units and then between metric and imperial units. The unit ends with pupils solving increasingly challenging word problems related to volume.
Week 10	**Number and Place Value:** **Roman Numerals** In this short unit, pupils are identifying and using Roman numerals. First, pupils learn to write Roman numerals to 1000, determining rules to apply to the written number. Then, pupils learn how to write years above 1000. The unit ends with applying knowledge of Roman numerals to real-life scenarios.
Week 11	**End of Year Assessments** Pupils will complete the end of year assessments, which will help to form the teacher's assessment of progress.
Week 12	**Review and Consolidation**