Autumn Term	Y5	
First Half		Second Half
Number and place value, read, write, compare and order numbers to at least 1,000,000 -Know what each digit represents in numbers to at least 1 000 000 -Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000		**Geometry**:2D shape distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
Number: Mental addition/subtraction strategies + and subtract numbers mentally with increasingly large numbers		**Geometry:** -know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles -draw given angles, and measure them in degrees (o) -identify: . angles at a point and one whole turn (total 360o) . angles at a point on a straight line and a half turn (total 180o) . other multiples of 90o
Number: Formal Addition/subtraction (1) -solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		**Geometry**: properties of rectangles – missing lengths and angles -use the properties of rectangles to deduce related facts and find missing lengths and angles
Number: Doubling and halving -Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers -know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers -establish whether a number up to 100 is prime and recall prime numbers up to 19		**Statistics**: bar charts and line graphs *Reinforce concepts in science -solve comparison, sum and difference problems using information presented in a line graph
Number: Multiplication and division facts CONSOLIDATION from Y4: use place value, known and derived facts to multiply and divide mentally -multiply and divide whole numbers and those involving decimals by 10, 100 and 1000		**Measurement**: -convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre) -understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints (length)
Number: Formal methods Multiplication (1) CONSOLIDATION from Y4: -multiply three-digit numbers by a one-digit number using grid method -multiply three-digit numbers by a two-digit number using grid method -multiply three-digit numbers by a one-digit number using formal written layout		**Measurement:** -measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres -calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes
Number: Formal methods Division (1)		Assessment week (including calculation review)

-divide numbers up to 4 digits by a one-digit number using the written method of 'chunking'	
Number: Rounding -use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	

Spring Term: Y5

First Half	Second Half
Number: -recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) -solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes	**Statistics:** **-** read and interpret information in tables, including timetables -solve problems involving converting between units of time
Fractions: compare and order fractions, identify equivalent fractions -Order fractions with the same denominator -recognise and show, using diagrams, families of common equivalent fractions -compare and order fractions whose denominators are all multiples of the same number -identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	**Measurement:** -convert between different units of metric measure (for example, gram and kilogram) -understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints (mass) -estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
Fractions:add/subtract/ recognise mixed numbers and improper fractions -recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, two fifths + four fifths = six fifths = 1 one fifth] -add and subtract fractions with the same denominator and denominators that are multiples of the same number -multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	**Number**: negative numbers -Use negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero -Solve number problems and practical problems -Read Roman numerals to 1000 (M) -Recognise years written in Roman numerals
Fractions: fractions and decimal numbers CONSOLIDATION from Y4: recognise and write decimal equivalents of any number of tenths or hundredths -recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -read and write decimal numbers as fractions -round decimals with two decimal places to the nearest whole number and to one decimal place	**Geometry:** coordinates – 4 quadrants/translate shapes – link to work on negative numbers -identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

-read, write, order and compare numbers with up to three d.p.	
Fractions: percentages -recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal -solve problems which require knowing percentage and decimal equivalents of a half, one quarter, one fifth, two fifths, four fifths and those fractions with a denominator of a multiple of 10 or 25.	**Assessment week**
Number: - multiply and divide numbers mentally drawing upon known facts -multiply and divide whole numbers and decimals by 10, 100, 1000 -multiply three-digit numbers by a one-digit number using formal written layout	

Summer Term:

First Half	Second Half
Number: -multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers -solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**Statistics:** mean as average
Geometry: 3D shape and nets -identify 3-D shapes, including cubes and other cuboids, from 2-D representations	**Ratio and proportion:** scale factors -use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
Number: division (3) -divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	**Measurement:** converting between units -convert between different units of metric measure (for example, litre and millilitre) understand and use approximate equivalences between metric units and common imperial units such as litres and pints (capacity)
Fractions and Decimals: -solve measure and money problems involving fractions and decimals -solve problems involving number up to three decimal places	**Number:** -add and subtract whole numbers with more than 4 digits, including using formal written methods -Consolidation of strategies of long multiplication and short division in solving

	problems
Assessment week	**Ratio and proportion**: percentages revision -solve problems which require knowing percentage and decimal equivalents of a half, one quarter, one fifth, two fifths, four fifths and those fractions with a denominator of a multiple of 10 or 25.
(Residential trip)	End of year calculation tests following school Calculation Policy

Ist half term: Mad 4 Maths: number – real life problem solving using all 4 operations

2nd half term: Mad 4 Maths: geometry – angles around a point/opposite angles/angles along a straight line.

3rd half term: Mad 4 Maths: measurement – converting between units (including miles and km), interpret line graphs, real life problem solving.

4th half term: Mad 4 Maths- ratio and proportion – scaling quantities e.g. recipes and scale factors in size

6th half term: Mad4Maths – mean as average (mode, range, median) – weather station data