Mill Class Maths Planning Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Aut 1	**Number - Place Value 1** Whole numbers Count, read, write, order, compare Rounding Roman numerals		**Number - Addition and Subtraction 1** Mental methods Formal methods Multi-step problems	**Number - Multiplication and Division 1** Mental methods Formal written multiplication Short and long division		**Measures 1** Perimeter and area	**Number - Multiplication and Division 2** Multiples, factors, prime numbers
Aut 2	**Number – Fractions 1**		**Number - Place Value 2** Decimals **Number - Fractions 2** **Measures 2** Converting between units		**Geometry – Properties of Shape 1** Shape and angles	**Geometry – Position 1** Co-ordinates	**Assess and Review**
Spr 1	**Number - Fractions 3** **Ratio and Proportion 1**		**Measures 3** Time and money Mass and capacity	**Statistics 1** Line graphs Timetables	**Number - Fractions 4**		
Spr 2	**Number - Multiplication and Division 3** Order of operations, square and cube numbers **Ratio and Proportion 2**		**Algebra 1** **Measures 4** Volume of cubes and cuboids	**Number - Addition and Subtraction 2** **Number - Fractions 5** **Algebra 2** Number sequences	**Number - P Value 3** Negative numbers **Statistics 2** Line graphs	**Assess and Review**	
Sum 1	**Number - +/- 3** **Number - x/÷ 4** Secure formal methods **Number - Fractions 6**	**Number - Fractions 7** **Geometry – Shape 2** **Geometry – Position 2**	**Statutory Tests (SATS)**	**Geometry – Shape 3** Identify and build 3D shapes, net patterns Parts of a circle Regular and irregular polygons Draw and measure angles		**Statistics 3** Pie charts	
Sum 2	**Number - Fractions 8** **Ratio and Proportion 3**		**Number - Place Value 4** **Number - Addition and Subtraction 4** **Number - Multiplication and Division 5** **Algebra 3**		**Number - Addition and Subtraction 5** **Number – Fractions 9** **Measures 5** Area Conversion between units and metric/imperial		**Number - Multiplication and division 6** Secure formal methods

Number and Place Value

YEAR 5 NC Objectives	YEAR 6 NC Objectives
Counting	
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Use negative numbers in context, and calculate intervals across zero
Comparing Numbers	
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
Reading and Writing Numbers	
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Comparing Numbers) Read Roman numerals to 1 000 (M) and recognise years written in Roman numerals.	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Understanding Place Value)
Understanding Place Value	
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit Recognise and use thousandths and relate them to tenths hundredths and decimal equivalents	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1 000 where the answers are up to three decimal places
Rounding	
Round any number up to 1000000 to the nearest 10, 100, 1000 10 000 and 100 000 Round decimals with two decimal places to the nearest whole number and to one decimal place	Round any whole number to a required degree of accuracy Solve problems which require answers to be rounded to specified degrees of accuracy
Problem Solving	
Solve number problems and practical problems that involve all of the above	Solve number and practical problems that involve all of the above
Ready to Progress Criteria	
5NPV–1 *Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and*	***6NPV–1*** *Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).*

Autumn Content Y5/6 and Y6	Spring Content Y5/6 and Y6	Summer Content Y5/6 and Y6
Number and Place Value 1 Solve number problems and practical problems involving the following: Read, write, order and compare numbers to 1,000,000 (extend to 10, 000, 000 for Y6) and determine the value of each digit. Round any whole number up to 1000000 to the nearest 10, 100, 1000 10 000 and 100 000. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 Read Roman numerals to 1 000 (M) and recognise years written in Roman numerals. **Number and Place value 2** Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1 000 where the answers are up to three decimal places. Round any number	**Number and Place Value 3** Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Use negative numbers in context, and calculate intervals across zero	**Number and Place Value 4** Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)

that 0.1 is 10 times the size of 0.01. ***5NPV–2*** *Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.* ***5NPV–3*** *Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each* ***5NPV–4*** *Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4,* ***5NPV–5*** *Convert between units of measure, including using common decimals and fractions*	***6NPV–2*** *Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning.* ***6NPV–3*** *Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.* ***6NPV–4*** *Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.*	(including decimals to required degree of accuracy)		

Addition and Subtraction				
YEAR 5 NC Objectives	**YEAR 6 NC Objectives**	**Autumn Content Y5/6 and Y6**	**Spring Content Y5/6 and Y6**	**Summer Content Y5/6 and Y6**
Mental Calculation		**Addition and Subtraction 1** Add and subtract numbers with more than 4 digits using formal methods. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use. Use rounding to check answers to calculations. Use estimation to check answers to calculations Add and subtract numbers mentally with increasingly large numbers	**Addition and subtraction 2** Solve addition and subtraction multi-step problems. Perform mental calculations, including mixed operations and large numbers. Estimate to check in context.	**Addition and subtraction 3** Revise formal method of subtraction and addition. Solve problems involving addition, subtraction, multiplication and division, deciding on methods and operations to use. **Addition and subtraction 4** Perform mental calculations. Solve multi-step problems. Use estimation to check answers in context. **Addition and subtraction 5** Perform mental
Add and subtract numbers mentally with increasingly large numbers	Add and subtract numbers mentally with increasingly large numbers Use their knowledge of the order of operations to carry out calculations involving the four operations			
Written Methods				
Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)				
Inverse Operations, Estimating and Checking Answers				
Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy			
Problem Solving				
Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division			
Ready to Progress Criteria				
5NF–2 *Apply place-value knowledge to known*	***6AS/MD–1*** *Understand that 2 numbers can be*			

additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	*related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).* ***6AS/MD–2** Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.* ***6AS/MD–3** Solve problems involving ratio relationships.* ***6AS/MD–4** Solve problems with 2 unknowns.*			calculations involving all four operations Solve problems involving addition, subtraction, multiplication and division Use estimation to check answers and accuracy in context of a problem

Multiplication and Division				
YEAR 5 NC Objectives	**YEAR 6 NC Objectives**	**Autumn Content Y5/6 and Y6**	**Spring Content Y5/6 and Y6**	**Summer Content Y5/6 and Y6**
Multiplication and Division Facts				
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000		**Multiplication and Division 1** Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method. Multiply and divide numbers mentally drawing upon known facts Divide numbers up to 4 digits by a one-digit (or two-digit Year 6) number using the formal written method of short division and interpret remainders appropriately for the context. Divide numbers up to 4 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,	**Multiplication and Division 3** Use their knowledge of the order of operations to carry out calculations involving the four operations. Divide numbers up to 4 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. Multiply and divide written methods – Year 5 revision and extension. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	**Multiplication and Division 4** Revise formal methods of multiplication and division. Solve problems involving all four operations. Use estimation to check answers in context. **Multiplication and Division 5** Perform mental calculations involving all four operations. Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) Identify common factors, common multiples and primes. **Multiplication and**
Mental Calculation				
Multiply and divide numbers mentally drawing upon known facts Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Perform mental calculations, including with mixed operations and large numbers Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8			
Written Calculation				
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 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	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context Divide numbers up to 4 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 Use written division methods in cases where the answer has up to two decimal places			

Properties of Numbers: Multiples, Factors, Primes, Square and Cube Numbers	
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 (nonprime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	Identify common factors, common multiples and prime numbers Use common factors to simplify fractions; use common multiples to express fractions in the same denomination (copied from Fractions) Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3
Order of Operations	
	Use their knowledge of the order of operations to carry out calculations involving the four operations
Inverse Operations, Estimating and Checking Answers	
	Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy
Problem Solving	
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Solve problems involving addition, subtraction, multiplication and division Solve problems involving similar shapes where the scale factor is known or can be found
Ready to Progress Criteria	
5NF–1 *Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.* ***5NF–2*** *Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).* ***5MD–1*** *Multiply and divide numbers by 10 and*	***6AS/MD–1*** *Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).* ***6AS/MD–2*** *Use a given additive or multiplicative*

as appropriate for the context

Multiplication and Division 2

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 (nonprime) numbers

Establish whether a number up to 100 is prime and recall prime numbers up to 19

Identify common factors, common multiples and prime numbers

Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})

division 6

Formal method of multiplication.
Formal method of division both short and long.
Interpret remainders from division as whole numbers, fractions, or rounding as appropriate for context.
Use estimation to check answers and accuracy in context of a problem.

100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. ***5MD–2** Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.* ***5MD–3** Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.* ***5MD–4** Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context*	*calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.* ***6AS/MD–3** Solve problems involving ratio relationships.* ***6AS/MD–4** Solve problems with 2 unknowns.*			

Fractions (including Decimals and Percentages)

YEAR 5 NC Objectives	YEAR 6 NC Objectives	Autumn Content Y5/6 and Y6	Spring Content Y5/6 and Y6	Summer Content Y5/6 and Y6
Recognising Fractions				
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents		**Fractions 1** Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Recall and use equivalences between simple fractions, decimals and percentages. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. Compare and order fractions whose denominators are all multiples of the same number (including fractions >1 – Year 6)	**Fractions 3** 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 as a decimal fraction Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those with	**Fractions 6** Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) **Fractions 7** **Geometry 3 with fractions** Multiply pairs of proper fractions. Divide proper fractions by whole numbers. Multiply proper fractions and mixed numbers by
Comparing Fractions				
Compare and order fractions whose denominators are all multiples of the same number	Compare and order fractions, including fractions >1			
Comparing Decimals				
Read, write, order and compare numbers with up to three decimal places	Identify the value of each digit in numbers given to three decimal places			
Rounding Including Decimals				
Round decimals with two decimal places to the nearest whole number and to one decimal place	Solve problems which require answers to be rounded to specified degrees of accuracy			
Equivalence (Including Fractions, Decimals and Percentages)				
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents Recognise the per cent symbol (%) and	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) Recall and use equivalences between simple			

understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100 as a decimal fraction	fractions, decimals and percentages, including in different contexts.	Add and subtract fractions with the same denominator and multiples of the same number Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5) **Fractions 2** Multiply and divide by 10, 100 and 1000 (up to three places) Identify the value of each digit to two or three decimal places. Round decimals to nearest whole and one place. Solve problems which require rounding.	a denominator of a multiple of 10 or 25 Find a percentage of a number using mental methods (or find the percentage e.g. 10 is what percent of 100?) Solve problems involving percentages. **Fractions 4** Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = 1/8$) Multiply one-digit numbers with up to two decimal places by whole numbers Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6) Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Add and subtract fractions with the same denominator and multiples of the same number	whole numbers. **Fractions 8** Find non-unit fractions of quantities. 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 Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5) Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams **Fractions 9** Multiply one-digit numbers with up to two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
Addition and Subtraction of Fractions				
Add and subtract fractions with the same denominator and multiples of the same number Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 1 1/5)	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions			
Multiplication and Division of Fractions				
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = 1/8$) Multiply one-digit numbers with up to two decimal places by whole numbers Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6)			
Multiplication and Division of Decimals				
Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Multiply one-digit numbers with up to two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) Use written division methods in cases where the answer has up to two decimal places			
Problem Solving				
Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$,				

1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25 solve problems involving numbers up to three decimal places			**Fractions 5** Add and subtract fractions with different denominators and mixed numbers, using concept of equivalent fractions.	Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
Ready to Progress Criteria				
5F–1 *Find non-unit fractions of quantities.* ***5F–2*** *Find equivalent fractions and understand that they have the same value and the same position in the linear number system.* ***5F–3*** *Recall decimal fraction equivalents for* $\frac{1}{2}$*.* $\frac{1}{4}$*, 1/5 and 1/10, and for multiples of these proper fractions.* ***5G–1*** *Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.*	***6F–1*** *Recognise when fractions can be simplified, and use common factors to simplify fractions.* ***6F–2*** *Express fractions in a common denomination and use this to compare fractions that are similar in value.* ***6F–3*** *Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.*			

Ratio and Proportion				
YEAR 5 NC Objectives	**YEAR 6 NC Objectives**	**Autumn Content Y5/6 and Y6**	**Spring Content Y5/6 and Y6**	**Summer Content Y5/6 and Y6**
	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		**Ratio and Proportion 1** Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison. **Ratio and Proportion 2** Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. Solve % problems.	**Ratio and Proportion 3** Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts (use a:b notation) Solve problems involving ratio and proportion e.g. recipes. Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples e.g. 3/5 of class are boys;

				for every egg, you need three spoonfuls of flour

Algebra				
YEAR 5 NC Objectives	**YEAR 6 NC Objectives**	**Autumn Content Y5/6 and Y6**	**Spring Content Y5/6 and Y6**	**Summer Content Y5/6 and Y6**
Equations				
Use the properties of rectangles to deduce related facts and find **missing lengths and angles**	Express missing number problems algebraically Find pairs of numbers that satisfy number sentences involving two unknowns Enumerate all possibilities of combinations of two variables		**Algebra 1** Express missing number problems algebraically Find pairs of numbers that satisfy number sentences involving two unknowns Enumerate all possibilities of combinations of two variables. Use simple formulae Recognise when it is possible to use formulae for area and volume of shapes Use the properties of rectangles to deduce related facts and find missing lengths and angles **Algebra 2** Generate and describe linear number sequences	**Algebra 3** Express missing number problems algebraically. Find pairs of numbers that satisfy number sentences involving two unknowns e.g. a pair of numbers that sum to 10 and have product of 24 = 6 and 4) Use simple formulae.
Formulae				
	Use simple formulae Recognise when it is possible to use formulae for area and volume of shapes			
Sequences				
	Generate and describe linear number sequences			

Measurement				
YEAR 5 NC Objectives	**YEAR 6 NC Objectives**	**Autumn Content Y5/6 and Y6**	**Spring Content Y5/6 and Y6**	**Summer Content Y5/6 and Y6**
Comparing and Estimating				
Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and	Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3)	**Measures 1** Measure and calculate the perimeter of composite	**Measures 3** Solve problems involving converting between units	**Measures 5** Solve problems involving the calculation and

estimate the area of irregular shapes (also included in measuring) Estimate volume (e.g. using 1 cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water)	and cubic metres (m^3) and extending to other units such as mm^3 and km^3	rectilinear shapes in centimetres and metres Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes Recognise when it is possible to use formulae for area of shapes. Recognise that shapes with the same areas can have different perimeters and vice versa Calculate the area of parallelograms and triangles **Measures 2** Convert between different units of metric measure – focus length. Convert between standard units, converting measurements of length, using decimal notation to up to three decimal places. Solve problems involving converting units of measure. Convert between miles and kilometres	of time. Convert between different units of metric measures – focus on mass and capacity. Use all four operations to solve problems involving measure, especially MONEY using decimal notation. **Measures 4** 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 [e.g. mm^3 and km^3]	conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between all standard metric units. Calculate area of squares, and rectangles, estimate irregular shapes. Calculate area of triangles and parallelograms. Recognise when formulae can be used for area and volume. Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints. Convert miles and kilometres.
Measuring and Calculating				
Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes *recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})*	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Converting) Recognise that shapes with the same areas can have different perimeters and vice versa 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 [e.g. mm^3 and km^3] Recognise when it is possible to use formulae for area and volume of shapes			
Telling the Time				
Solve problems involving converting between units of time				
Converting				
Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Solve problems involving converting between units of time Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	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			

Geometry – Properties of Shape

YEAR 5 NC Objectives	YEAR 6 NC Objectives	Autumn Content Y5/6 and Y6	Spring Content Y5/6 and Y6	Summer Content Y5/6 and Y6
Identifying Shapes and their Properties				
Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing) Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	**Geometry 1** Illustrate and name parts of circles. Know angles are measured in degrees, estimate and compare angles. Identify angles at a point, on a straight line and multiples of 90 degrees. Recognise vertically opposite angles and calculate missing angles.		**Geometry 2** Compare and classify geometric shapes based on their properties and sizes and find unknown angles. Distinguish between regular and irregular polygons. **Geometry 3** Identify 3-D shapes Recognise, build 3-D shapes and make nets. Illustrate and name parts of a circle. Draw angles and measure them. Distinguish between regular and irregular polygons. Draw 2D shapes
Drawing and Constructing				
Draw given angles, and measure them in degrees (°)	Draw 2-D shapes using given dimensions and angles Recognise, describe and build simple 3-D shapes, including making nets			
Comparing and Classifying				
Use the properties of rectangles to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons			
Angles				
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Identify: * angles at a point and one whole turn (total 360o) * angles at a point on a straight line and ½ a turn (total 180o) * other multiples of 90o	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles			
Ready to Progress Criteria				
5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size **5G–2** Compare areas and calculate the area of rectangles (including squares) using standard units.	**6G–1** Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.			

Geometry – Position and Direction

YEAR 5 NC Objectives	YEAR 6 NC Objectives	Autumn Content Y5/6 and Y6	Spring Content Y5/6 and Y6	Summer Content Y5/6 and Y6
Geometry – Position, Direction and Movement				
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	Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	**Geometry 1** Describe position in one quadrant or full coordinate grid. Describe a shape following translation or reflection.		**Geometry 2** Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. Identify, describe and represent the position of a shape following a reflection or translation

Statistics

YEAR 5 NC Objectives	YEAR 6 NC Objectives	Autumn Content Y5/6 and Y6	Spring Content Y5/6 and Y6	Summer Content Y5/6 and Y6
Interpreting, Constructing and Presenting Data				
Complete, read and interpret information in tables, including timetables	Interpret and construct pie charts and line graphs and use these to solve problems		**Statistics 1** Calculate and interpret the mean as an average Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables, including timetables **Statistics 2** Calculate mean average Interpret and construct line graphs and use for solving problems	**Statistics 3** Interpret and construct pie charts and line graphs and use these to solve problems. Use information in line graphs to solve problems.
Solving Problems				
Solve comparison, sum and difference problems using information presented in a line graph	Calculate and interpret the mean as an average			