

Term 1		
Unit	NC objectives	Content
Unit 1: Number and place value	<ul style="list-style-type: none"> • Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. • Round any whole number to a required degree of accuracy. • Solve number and practical problems that involve all of the above. 	<p>Week 1: Fluency with large numbers</p> <ul style="list-style-type: none"> • Read and write numbers up to 10 000 000 and determine the value of each digit. • Read, write, order and compare numbers up to 10 000 000. • Round any whole number to a required degree of accuracy. • Solve number problems that involve all of the above. • Solve practical problems that involve all of the above.
Unit 2: Addition, subtraction, multiplication and division	<ul style="list-style-type: none"> • Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication. • Divide numbers up to four digits by a 2-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. • Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. • Perform mental calculations, including with mixed operations and large numbers. • Identify common factors, common multiples and prime numbers. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. 	<p>Week 2: Understanding multi-digit multiplication</p> <ul style="list-style-type: none"> • Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication. • Perform mental calculations, including with mixed operations and large numbers. • Identify common factors, common multiples and prime numbers. • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
		<p>Week 3: Understanding multi-digit division methods</p> <ul style="list-style-type: none"> • Divide numbers up to four digits by a 2-digit whole number using the formal written method of long division. • Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate. • Perform mental calculations, including with mixed operations and large numbers.
		<p>Week 4: Solving problems using all four operations</p> <ul style="list-style-type: none"> • Divide numbers up to four digits by a 2-digit number, interpreting remainders according to the context. • Interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.

		<ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. Solve problems involving addition, subtraction, multiplication and division.
Unit 3: Measurement	<ul style="list-style-type: none"> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. 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. Convert between miles and kilometres. Recognize when it is possible to use formulae for area and volume of shapes. 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). 	Week 5: Constructing 2D and 3D shapes <ul style="list-style-type: none"> Draw 2D shapes using given dimensions and angles. Recognize, describe and build simple 3D shapes. Make nets of simple 3D shapes.
Unit 4: Fractions (including decimals and percentages)	<ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1. Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). Identify the value of each digit in numbers given to three decimal places and multiple and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. 	Week 6: Using equivalences <ul style="list-style-type: none"> Use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1. Associate a fraction with division. Calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. Week 7: Adding and subtracting fractions to solve problems <ul style="list-style-type: none"> Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. Week 8: Multiplying and dividing decimals to solve problems <ul style="list-style-type: none"> Identify the value of each digit in numbers given to three decimal places.

	<ul style="list-style-type: none"> • Multiply 1-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. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 	<ul style="list-style-type: none"> • Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. • Multiply 1-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.
Unit 5: Ratio and proportion	<ul style="list-style-type: none"> • Solve problems involving the calculation of percentages, e.g. of measures, and such as 15% of 360, and the use of percentages for comparison. 	Week 9: Working with proportions in ratio and percentage contexts <ul style="list-style-type: none"> • Solve problems involving the calculation of percentages, e.g. of measures, and such as 15% of 360, and the use of percentages for comparison.
Unit 6: Geometry: properties of shapes	<ul style="list-style-type: none"> • Draw 2D shapes using given dimensions and angles. • Recognize, describe and build simple 3D shapes, including making nets. 	Week 10: Estimating, comparing and calculating volumes <ul style="list-style-type: none"> • Recognize when it is possible to use formulae for volume of shapes. • Calculate volume of cubes and cuboids using standard units (cm^3, m^3). • Estimate volume of cubes and cuboids using standard units (cm^3, m^3). • Compare volume of cubes and cuboids using standard units (cm^3, m^3). • Calculate, estimate and compare volume of cubes and cuboids using standard units (cm^3, m^3), extending to other units (for example mm^3 and km^3). Week 11: Converting between units of measure <ul style="list-style-type: none"> • Solve problems involving the calculation of units of measure, using decimal notation up to three decimal places where appropriate. • Solve problems involving the conversion of units of measure, using decimal notation up to three decimal places where appropriate. • Use, read and write standard units of length, mass and volume using decimal notation to up to three decimal places. • Convert between standard units, converting measurements of length, mass, and volume from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. • Convert between miles and kilometres.
Unit 7: Algebra	<ul style="list-style-type: none"> • Use simple formulae. • Express missing number problems algebraically. 	Week 12: Using letters to represent unknown numbers <ul style="list-style-type: none"> • Use simple formulae.

		<ul style="list-style-type: none"> Express missing number problems algebraically.
Unit 8: Geometry: position and direction	<ul style="list-style-type: none"> 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. 	<p>Week 13: Points, lines, shapes and translations on the four-quadrant coordinate plane</p> <ul style="list-style-type: none"> Describe positions on the coordinate grid (all four quadrants). Draw simple shapes on the coordinate plane.

Term 2

Unit	NC objectives	Content
Unit 9: Number and place value	<ul style="list-style-type: none"> • Use negative numbers in context, and calculate intervals across zero. • Solve number and practical problems that involve the above. 	Week 1: Negative numbers in context, including counting on and back and in sequences <ul style="list-style-type: none"> • Use negative numbers in context. • Calculate intervals across 0. • Solve number problems that involve all of the above. • Solve practical problems that involve all of the above.
Unit 10: Addition, subtraction, multiplication and division	<ul style="list-style-type: none"> • Divide numbers up to four digits by a 2-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. • Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. • Perform mental calculations, including with mixed operations and large numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations. • 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. 	Week 2: Reasoning about the order used to solve calculations <ul style="list-style-type: none"> • Perform mental calculations, including with mixed operations and large numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations.
		Week 3: Mixed operations <ul style="list-style-type: none"> • Divide numbers up to four digits by a 2-digit whole number using the formal written method of long division. • Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate. • 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. • Solve problems involving addition, subtraction, multiplication and division.
Unit 11: Geometry: position and direction	<ul style="list-style-type: none"> • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. 	Week 4: Reflections and translations in all four quadrants <ul style="list-style-type: none"> • Translate simple shapes on the coordinate plane. • Draw simple shapes on the coordinate plane and reflect them in the axes.

Unit 12: Fractions (including decimals and percentages)	<ul style="list-style-type: none"> • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). • Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$). • Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 	<p>Week 5: Using equivalences and solving problems</p> <ul style="list-style-type: none"> • Use common factors to simplify fractions. • Use common multiples to express fractions in the same denomination. • Compare and order fractions, including fractions > 1. • Associate a fraction with division. • Calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. <p>Week 6: Multiplying and dividing fractions to solve problems</p> <ul style="list-style-type: none"> • Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). • Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$).
Unit 13: Statistics	<ul style="list-style-type: none"> • Interpret and construct pie charts and line graphs and use these to solve problems. 	<p>Week 7: Working with graphs and pie charts</p> <ul style="list-style-type: none"> • Interpret pie charts and use these to solve problems. • Construct pie charts and use these to solve problems. • Interpret line graphs and use these to solve problems. • Construct line graphs and use these to solve problems.
Unit 14: Algebra	<ul style="list-style-type: none"> • Generate and describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables. 	<p>Week 8: Using algebra to describe sequences and equations with two unknown values</p> <ul style="list-style-type: none"> • Generate linear number sequences. • Describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables.
Unit 15: Measurement	<ul style="list-style-type: none"> • Recognize that shapes with the same areas can have different perimeters and vice versa. 	<p>Week 9: Areas of parallelograms, triangles and related shapes</p> <ul style="list-style-type: none"> • Recognize that shapes with the same areas can have different perimeters and vice versa.

	<ul style="list-style-type: none"> • Recognize when it is possible to use formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles. 	<ul style="list-style-type: none"> • Recognize when it is possible to use formulae for area of shapes. • Calculate the area of parallelograms. • Calculate the area of triangles.
Unit 16: Ratio and proportion	<ul style="list-style-type: none"> • 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 unequal sharing and grouping using knowledge of fractions and multiples. 	Week 10: Solving problems in proportional share situations <ul style="list-style-type: none"> • 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 unequal sharing and grouping using knowledge of fractions and multiples.
Unit 17: Geometry: properties of shapes	<ul style="list-style-type: none"> • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognize angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. 	Week 11: Applying angle properties and relationships to work out the values of unknown angles <ul style="list-style-type: none"> • Compare and classify geometric shapes based on their properties and sizes. • Find unknown angles in any triangles, quadrilaterals, and regular polygons. • Recognize angles where they meet at a point, are on a straight line, or are vertically opposite. • Find missing angles.
		Week 12: Shapes and their properties, including circles <ul style="list-style-type: none"> • Compare and classify geometric shapes based on their properties and sizes. • Illustrate and name parts of circles, including radius, diameter and circumference. • Know that the diameter is twice the radius.

Term 3

Unit	NC objectives	Content
Unit 18: Statistics	<ul style="list-style-type: none"> Calculate and interpret the mean as an average. 	Week 1: Calculate and interpret the mean as an average <ul style="list-style-type: none"> Calculate the mean. Interpret the mean as an average.
Unit 19: Addition, subtraction, multiplication and division	<ul style="list-style-type: none"> Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. 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. 	Week 2: Solving and comparing multi-step problems <ul style="list-style-type: none"> Perform mental calculations, including with mixed operations and large numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. 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. Week 3: Number and calculation relationships and properties <ul style="list-style-type: none"> Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations.
Unit 20: Fractions	<ul style="list-style-type: none"> Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). 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. Solve problems which require answers to be rounded to specified degrees of accuracy. 	Week 4: Solving problems involving fractions, decimals and percentages <ul style="list-style-type: none"> Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). Solve problems which require answers to be rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. Week 5: Working with percentages, decimals and fractions <ul style="list-style-type: none"> Identify the value of each digit in numbers given to three decimal places.

	<ul style="list-style-type: none"> Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 	<ul style="list-style-type: none"> Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Unit 21: Ratio and proportion	<ul style="list-style-type: none"> Solve problems involving the calculation of percentages (e.g. 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. 	Week 6: Using proportions across percentage and similar-shape situations <ul style="list-style-type: none"> Solve problems involving the calculation of percentages (e.g. 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.
Secondary Progression		
Unit 1	<ul style="list-style-type: none"> Solve problems involving addition, subtraction, multiplication and division. Use simple formulae. Generate and describe linear number sequences. 	Week 1: Investigating triangular numbers <ul style="list-style-type: none"> Use and reflect on a problem-solving rule. Use words, diagrams, algebra and concrete apparatus to explain mathematical reasoning. Appreciate the power of mathematics, and use logic and reasoning to explain why patterns and results occur.
Unit 2	<ul style="list-style-type: none"> Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Interpret and construct pie charts and line graphs and use these to solve problems. 	Week 2: Fake news <ul style="list-style-type: none"> Use multiplication and division in context to explore the validity of statements. Choose and use data carefully to support arguments and interrogate information presented as facts.
Unit 3	<ul style="list-style-type: none"> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. 	Week 3: Cupcake calculations <ul style="list-style-type: none"> Use all four operations to solve problems in contexts. Use diagrams to plan storage solutions.

	<ul style="list-style-type: none"> • 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 up to three decimal places. • Recognize, describe and build simple 3D shapes, including making nets 	
Unit 4	<ul style="list-style-type: none"> • Solve problems involving addition, subtraction, multiplication and division. • Use simple formulae. • Express missing number problems algebraically. 	Week 4: Investigating and reasoning about numbers <ul style="list-style-type: none"> • Use and reflect on a problem-solving rule. • Use words, diagrams, algebra and concrete apparatus to explain mathematical reasoning. • Use logic and reasoning to explain why patterns and results occur.