Year 7 Term 1

Chapter	Emerging	Developing	Secure	Excelling
Whole numbers and decimals (Number)	●Use place value and decimal notation in different contexts, including money. ●Compare and order whole numbers, negative numbers and decimals. ●Write numbers in words and figures.	●Round a number to the nearest 10, 100 or 1000. ●Use an estimate to check a result. ●Use the correct order of operations.	●Multiply and divide by 10, 100 and 1000. ●Add and subtract using mental, written and calculator methods. ●Understand place value in decimal numbers.	●Add, subtract, multiply and divide negative numbers. ●Use appropriate mental and written methods to add and subtract decimals.
Measures, perimeter and area (Geometry and measures)	●Measure lengths in cm and mm. ●Read and interpret scales in different contexts, including time. ●Classify 2D shapes by their properties.	●Calculate the perimeter of simple shapes. ●Calculate or estimate the area of a shape by counting squares. ●Select and use standard metric units of measure.	●Convert between metric units. ●Find the perimeter and area of a rectangle and triangle. ●Find the area of a parallelogram.	●Find the area of a trapezium. ●Use and convert between metric and imperial units of measure. ●Find the surface area and volume of a cuboid.
Expressions and formulae (Algebra)	●Use letters to represent unknown numbers. ●Simplify algebraic expressions by collecting like terms.	●Substitute whole numbers into expressions and formulae.	●Use a formula. ●Write a formula.	●Simplify expressions that involve brackets, powers and division.
Fractions, decimals and percentages (Number)	●Use fractions to describe parts of a whole, including improper fractions. ●Find unitary fractions of a quantity. ●Convert improper fractions to mixed numbers and vice versa.	●Simplify fractions and find equivalent fractions. ●Find a fraction of a quantity. ●Express a proportion as a fraction, a decimal or a percentage.	●Add & subtract fractions. ●Calculate percentage increase. ●Find a percentage of a quantity.	●Use fraction notation and simplify fractions. ●Change between fractions, decimals & percentages. ●Find fractions & percentages of amounts.

Year 7 Term 2

Chapter	Emerging	Developing	Secure	Excelling
Angles and 2D shapes (Geometry and measures)	●Classify triangles by their properties. ●Distinguish between acute, obtuse and reflex angles. ●Estimate angles and use a protractor to measure them.	●Use the sum of angles at a point, on a sraight line and in a triangle. ●Measure and draw angles to the nearest degree and lines to the nearest mm. ●Recognise and name the different types of triangle.	●Use angle facts to work out unknown angles. ●Recognise and name the different types of quadrilateral. ●Draw shapes accurately using a ruler and protractor.	●Know facts about angles on parallel and intersecting lines. ●Know facts about angles in triangles and quadrilaterals. ●Recognise types of triangles, quadrilaterals and polygons..
Adding and subtracting (Number)	●Strengthen and extend mental methods of addition and subtraction. ●Use efficient written methods to add and subtract whole numbers.	●Do multiplication and division calculations using mental methods. ●Do multiplication using a standard written method. ●Round numbers to the nearest 1000, 100, 10, integer or tenth.	●Evaluate expressions using the correct order of operations. ●Do short and long division using written methods. ●Use a calculator ot work out more complex expressions.	●Round whole numbers and decimals to a given degree of accuracy. ●Use mental and written methods of multiplication and division.
Statistics (Statistics and probability)	●Plan how to collect and organise small sets of data from surveys and experiments. ●Organise data using tally charts and frequency tables. ●Construct and understand different types of pictograms, bar charts and pie charts.	●Collect data and recognise a good questionnaire. ●Calculate statistics for small sets of data, including the mode, mean, median and range. ●Compare data from lists or represented in diagrams.	●Construct and interpret statistical diagrams, including pictograms, bar charts, pie charts and line graphs. ●Find the averages and range for raw data and data in frequency tables.	●Write questions which are clear, unbiased and easy to answer. ●Collect discrete and continuous data in grouped frequency tables and find the modal class. ●Compare sets of data.
Transformations and symmetry (Geometry and measures)	●Identify lines of symmetry in 2D shape. ●Transform a shape by reflection in a mirror line. ●Transform a shape by translation and describe a translation.	●Transform a shape by rotation about a point. ●Tessellate shapes. ●Recognise and describe reflection symmetry and rotation symmetry.	●Draw and describe enlargements that use positive whole number scle factors. ●Recognise and describe reflectional symmetry and rotational symmetry. ●Recognise and describe translations.	●Draw and describe enlargements that use positive whole number, fractional and negative scale factors. ●Draw and describe reflections, rotations and translations. ●Make tessellations by reflecting, rotating and translating a shape.
Equations (Algebra)	●Understand and use inverse operations. ●Use letters to represent unknown numbers.	●Construct and solve simple one step equations ●Multiply and divide numbers and letters in algebra.	●Use inverse operations to solve two-step equations. ●Solve equations involving fractions.	●Solve equations with brackets and an unknown on both sides. ●Write equations to describe different real-life situations then solve them.
Factors and multiples (Number)	●Recognise square numbers up to 10 x 10 and their square roots. ●Recognise prime numbers.	●Find factors and multiples of a number. ●Find the LCM and HCF of a pair of numbers.	●Use tests of divisibility to find factors and to test for prime numbers. ●Use factors and multiples to find the HCF and LCM of numbers.	●Write a whole number as the product of its prime factors. ●Use prime factors to find the HCF and LCM of two numbers.

Year 7 Term 3

Chapter	Emerging	Developing	Secure	Excelling
Constructions and 3D shapes (Geometry and measures)	●Recognise and name common 3D shapes. ●Construct simple nets of 3D shapes. ●Know the parts of a circle.	●Use a protractor to measure and draw angles. ●Use a ruler and protractor to construct a triangle and quadrilateral. ●Use isometric paper to draw 3D shapes.	●Use scales and scale drawings. ●Find the surface area and volume of a 3D shape made from centimetre cubes. ●Name various 3D shapes and describe them by their vertices, faces and edges.	●Describe a locus of a moving point and draw it accurately. ●Construct angle bisectors and perpendicular bisectors. ●Draw plans, elevations and nets of 3D solids.
Sequences (Algebra)	●Find patterns in sequences of numbers. ●Describe a sequence using a rule to find the next term.	●Use negative numbers in a sequence. ●Generate sequences from patterns of shapes.	●Use a rule to find the next term of a sequence. ●Generate terms in a sequence using a rule.	●Find a rule to describe a sequence of numbers. ●Use and find a rule for the nth term of a sequence.
Multiplying and dividing (Number)	●Consolidate multiplication facts up to 12 x 12. ●Multiply and divide by 10 and 100. ●Interpret the calculator display in different contexts, including money.	●Multiply and divide whole numbers using mental and written methods. ●Use mental methods to multiply and divide decimal numbers. ●Use a calculator for the four operations with whole numbers and decimals up to 2dp..	●Use a calculator for calculations, including indices and roots. ●Interpret the answer given on a calculator.	●Multiply decimal numbers using the standard method. ●Divide decimal numbers using written methods including short division. ●Interpret the calculator display after doing a division, including units of time.
Ratio and proportion (Ratio and proportion)	●Write and use ratios and proportions. ●Solve arithmetic problems in context. ●Construct and interpret scale drawings.	●Increase or decrease two quantities using direct proportion. ●Use ratio to compare two quantities. ●Solve problems involving ratio and proportion.	●Use fractions, decimals and percentages to describe proportions. ●Find the value of quantities that are directly proportional.	●Divide a quantity into a given ratio. ●Know how to find and use ratios and proportions in problems. ●Find the outcome after a percentage increase or decrease.
Probability (Statistics and probability)	●Understand and use the probability scale from 0 to 1. ●Use words to describe different probabilities. ●Know the meaning of words trial, outcome and event.	●Use equally likely outcomes to find a theoretical probability. ●Use an experiment to estimate an experimental probability. ●Describe probabilities using words, fractions, decimals and percentages.	●Find probabilities of events which are equally likely to happen. ●Identify a set. ●Complete and interpret a Venn diagram.	●Know what 'mutually exclusive' events are and find their probabilities. ●Compare results using theoretical and experimental probabilities. ●Understand and use Venn diagrams to find probabilities.