	Autumn 1	Autumn 2	Spring 1
Topic/Programme of study	**Algebra Number** Collins 1.1 chapter 2 Collins 2.1 chapter 5 Collins 3.1 chapter 11 **Algebra Equations** Collins 1.1 chapter 7 Collins 2.1 chapter 10 Collins 3.1 chapter 8	**Circles and symmetry** Collins 1.1 chapter 13 Collins 2.1 chapter 14 Collins 3.1 chapter 5 **Percentages and decimals** Collins 1.1 chapter 11 Collins 2.1 chapter 4 Collins 3.1 chapter 1	**Ratio, portion, distance and time** Collins 1.1 chapter 17 Collins 2.1 chapter 13 Collins 3.1 chapter 12 **Charts and data (Year 9 factorising and expansion)** Collins 1.1 chapter 15 Collins 2.1 chapter 9 Collins 3.1 chapter 2
Skills taught and tasks developed	• How to use function machines • How to describe some simple number patterns • How to generate and describe some simple whole-number sequences • How to use the special sequence of squared and triangular numbers • How to use the special sequence of Fibonacci numbers • How to use algebra to represent function machines • How to use the *n*th term for sequences • How to solve linear equations graphically • How to use straight-line graphs to solve problems • How to solve simple quadratic equations • How to use quadratic graphs to solve problems • How to use letters to represent numbers • How to use the rules (conventions) of algebra • How to simplify algebraic expressions • How to use and write formulae • How to write and simplify expressions involving all four operations • How to simplify expressions that have a number of terms • How to multiply out brackets in algebraic expressions	• How to recognise that shapes have reflective symmetry • How to use line symmetry • How to recognise and use rotational symmetry • How to reflect shapes in a mirror line • How to tessellate shapes • To name the parts of a circle • To use measurement to calculate circumference • To use formula to work out circumference • To use pi to calculate the area of a circle • To use pi to calculate the circumference of a circle • How to interpret percentages as a fraction • To calculate fractions and percentages of quantities • To write percentages as decimals • To work out the percentage of a quantity with or without a calculator • To work out percentage increase and decrease • To write one value as a percentage of another • To write a change of value as a percentage increase or decrease	• How to use ratio notation • How to use ratio to compare quantities • How to simplify ratios • How to use ratios to find missing quantities • To recognise the connection between ratios and fractions • How to solve problems using direct proportion • To use graphical and algebraic representations of direct proportion and inverse proportion • How to solve problems involving inverse proportion • To solve problems involving distance speed and time • How to read data from a pie chart • How to use the median and range to compare sets of data • How to carry out and interpret a statistical survey • How to interpret pie charts • How to create simple pie charts • How to read information from different charts and diagrams

	• How to identify equivalent expressions • How to write simple algebraic expressions involving powers • More about expanding brackets and factorising algebraic expressions • How to simplify more complicated expressions	• To calculate simple interest • To use a multiplier to calculate percentage increases and decreases • To calculate the original value after a percentage change	• How to expand brackets and factorise algebraic expressions • How to solve equations • How to use formula
Assessment focus	The generation of sequences, the nth term, algebraic representation in function machines and algebraic graph mapping Algebraic simplification, expanding brackets and factorisation involving expressions and expressions involving powers	Rotational symmetry, reflections, tessellations, parts of a circle, circumference of a circle, area of a circle Fractions and percentages of a quantity, percentage increase and decrease, calculating the result of a percentage change, calculating percentages, simple interest, calculating original value	Simplifying ratios, ratios and sharing, ratios and fractions, direct proportion, inverse proportion, graphs and direct proportion, average speed, distance time graphs, time taken. Reading and creating pie charts, reading scatter graphs, median and range, statistical surveys, Quadratic graphs, graphs from equations, straight line graphs, and problems solving using graphs.
Assessment tasks	End of modular assessments; **Algebra number**, yr. 7, Algebra 1,yr. 8 Algebra 1, yr. 9 Algebra 1 **Algebra equations**:- yr. 7 algebra 2, yr. 8 algebra 2, yr. 9 algebra 5	End of modular assessments; **Circles and symmetry;** yr 7 Geometry and measure 4, Yr 8 Corbet maths exam questions Yr 9 Corbet maths exam questions **Percentages and decimals;** Yr 7 number 6, yr 8 number 2, yr 9 Corbet Maths exam questions	End of modular assessments; **Ratio, portion, distance and time;** Yr 7 number 5, yr 9 number 1 (For year 8 assessment), yr 9 Corbet Maths exam questions **Charts and data (Year 9 factorising and expansion)**; yr 7 Statistics 3, yr 8 statistics 2, yr 9 algebra 5

	Spring 2	Summer 1	Summer 2
Topic/Programme of study	**Angles, scale and enlargement** Collins 1.1 chapter 9 Collins 2.1 chapter 11 Collins 3.1 chapter 6 **Shape and Area** Collins 1.1 chapter 3 Collins 2.1 chapter 6 Collins 3.1 chapter 10	**Fractions** Collins 1.1 chapter 8 Collins 2.1 chapter 12 Collins 3.1 chapter 7 **Number – negative and decimals** Collins 1.1 chapter 1 Collins 2.1 chapter 1 Collins 3.1 chapter 9	**Statistics** Collins 1.1 chapter 6 Collins 2.1chapter 16 Collins 3.1 chapter 4 **Probability** Collins 1.1 chapter 12 Collins 2.1 chapter 3 Collins3.1 chapter 14 (GCSE prep revision of probability)
Skills taught and tasks developed	• How to use a compass to give directions • How to measure angles • How to draw angles • How to calculate angles at a point, angles on a straight line and opposite angles • How to recognise parallel, intersecting and perpendicular lines • How to explain the geometrical properties of triangles and quadrilaterals • How to recognise congruent shapes • How to use shape and ratio • How to use scale diagrams • How to use a scale factor to show an enlargement • How to use rays to enlarge a shape about a centre of enlargement • How to enlarge a shape about a centre of enlargement on a coordinate grid • How to measure and draw lines • How to work out the perimeter of 2D shapes • How to work out the area of 2D shapes by counting squares • How to work out the perimeter of a square and a rectangle by using a rule	• How to find equivalent fractions • How to write a fraction in its simplest form • How to add and subtract fractions with the same and different denominators • How to convert a simple improper fraction to a mixed number • How to convert a mixed number into an improper fraction • How to add and subtract simple mixed numbers • How to multiply a fraction by an integer • How to divide with unit fractions and integers • How to multiply and divide by powers of 10 • How to subtract any two fractions • How to multiply any two fractions • How to divide any two fractions • How to use number skills in real life • How to use number in everyday money problems • How to use a number line to understand and calculate negative and whole numbers • To add and subtract negative and whole numbers	• How to calculate the mode, the median and the range for a set of data • How to interpret statistical diagrams and charts • How to collect and organise data • How to create data-collection forms • How to create questionnaires • How to use frequency tables • How to draw simple conclusions • How to construct grouped frequency tables for data • How to calculate the mean for discrete data • How to construct frequency diagrams for discrete data • How to compare two distributions by using an average and the range • How to recognise correlation from scatter graphs • How to construct and interpret two-way tables • How to compare two sets of data from statistical diagrams • How to plan statistical investigations

	• How to work out the area of a square and a rectangle by using a rule • How to use a formula to work out the area of a rectangle? • How to work out the area of a compound shape • How to use a formula to work out the area of a triangle • How to use a formula to work out the area of a parallelogram • How to work out the surface areas of cubes and cuboids • How to work out the volumes of cubes and cuboids • How to work out the volume of triangular prisms	• How to multiply and divide negative and whole numbers • To find the HCF and LCM of sets of numbers • To use powers and find roots • How to find the prime factors of a number • To work with powers of 10 • To know when to make suitable rounding • To use rounded numbers to estimate the results of calculations	• How to use words about probability • How to use a probability scale • How to work out theoretical probability in different situations • How to make predictions using experimental probability • How to work out the probability of an event not happening • To work out probability using sample spaces • How to record experimental data using a frequency table • Yr 9 GCSE preparation based on the topics studied during the year
Assessment focus	Scale factors and ratio, enlargement, measuring and drawing angles Perimeter and area of rectangles, triangles and trapeziums, volume of prisms and cuboids	Equivalent fractions, all four operations in factions and dividing whole numbers by a fraction Adding and subtracting positive and negative numbers, real life number skills, Square and cube and roots, multiplying and dividing positive and negative numbers, HCF and LCM, rounding, adding and subtracting negative numbers and powers of 10	Averages, Frequency, statistical diagrams and investigations, comparing data, applying averages, comparing data, scatter graphs and correlation. Probability scales, experimental probability, mixed events, sample spaces, collecting frequency data, Yr 9 practice, revision and GCSE preparation
Assessment tasks	End of modular assessments in:- **Angles, scale and enlargement;** Yr 7 geometry and measure 3, yr8 geometry and measure 4, yr9 geometry and measure 3 **Shape and Area;** yr. 7 geometry and measure 1, yr8. geometry and measure 2, yr. 9 geometry and measure 2	End of modular assessments in **Fractions;** yr7 number 3, year 8 number 2, year 9 number 1 **Number – negative and decimals;** Yr 7 Number 1 and number 2, yr 8, number 1, yr9 number, yr 9 number 2	End of modular assessments in **Statistics;** Yr 7 Statistics 1, Yr 8 Statistics 3, yr 9 statistics 1 **Probability;** Yr 8 statistics 1 (for yr 7 assessment), Yr 9 statistics 2 (for year 8 assessment), Yr 9 Corbett maths exam style questions