Curriculum Scheme

Mathematics

The Eastwood Academy

Believe, Succeed, Together

Curriculum Scheme

The fundamental aim of a curriculum scheme is to coherently plan and sequence the cumulative acquisition of subject content to facilitate retention, recall and application.

CREATE Curriculum

Curriculum schemes are underpinned by the CREATE Curriculum which brings together the key interrelated aspects of curriculum structure, design and delivery into a single coherent entity.

CREATE Element	Description
Challenge	Stretch and extend learning to foster a deeper understanding beyond the content of the National Curriculum and GCSE specifications.
Regulate	Plan, monitor and evaluate specific aspects of learning to foster greater responsibility and independence – DRAFT.
Enhance	Consolidate and develop transferable literacy and numeracy skills.
Adapt and Assess	Adapt teaching to take account of different pupils' needs and provide an opportunity for all pupils to achieve. Undertake regular in-class assessment to monitor strengths and highlight specific areas of improvement.
Target	Consolidate identified strengths and develop and overcome areas of improvement.
Enrich	Enhance physical and emotional wellbeing; develop social, spiritual, moral and cultural capital; and provide opportunities and experiences to successfully transition to the next stage from secondary education.

Curriculum Allocation

Year Group	7	8	9	10	11
Number of Lessons	3	3	4	4	4

Curriculum Intent

Mathematics is a National Curriculum core subject – refer to National Curriculum Mathematics Programmes of Study

Key Stage 1-2

Learning Intentions
KS1 and KS2 National Curriculum Mathematics Programmes of Study

Key Stage 3

Learning Intentions
Develop Fluency • Consolidate their numerical and mathematical capability from KS2 and extend their understanding of the number system and place value to include decimals, fractions, powers and roots. • Select and use appropriate calculation strategies to solve increasingly complex problems. • Use algebra to generalise the structure of arithmetic, including to formulate mathematical relationships. • Substitute values in expressions, rearrange and simplify expressions, and solve equations. • Move freely between different numerical, algebraic, graphical and diagrammatic representations e.g. equivalent fractions, fractions and decimals, and equations and graphs. • Develop algebraic and graphical fluency, including understanding linear and simple quadratic functions. • Use language and properties precisely to analyse numbers, algebraic expressions, 2-D and 3-D shapes, probability and statistics. **Reason Mathematically** • Extend their understanding of the number system; make connections between number relationships, and their algebraic and graphical representations. • Extend and formalise their knowledge of ratio and proportion in working with measures and geometry, and in formulating proportional relations algebraically. • Identify variables and express relations between variables algebraically and graphically.

- Make and test conjectures about patterns and relationships; look for proofs or counter-examples.
- Begin to reason deductively in geometry, number and algebra, including using geometrical constructions.
- Interpret when the structure of a numerical problem requires additive, multiplicative or proportional reasoning.
- Explore what can and cannot be inferred in statistical and probabilistic settings, and begin to express their arguments formally.

Solve Problems

- Develop their mathematical knowledge, in part through solving problems and evaluating the outcomes, including multi-step problems.
- Develop their use of formal mathematical knowledge to interpret and solve problems, including in financial mathematics.
- Begin to model situations mathematically and express the results using a range of formal mathematical representations.
- Select appropriate concepts, methods and techniques to apply to unfamiliar and non-routine problems.

Number

- Understand and use place value for decimals, measures and integers of any size.
- Order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥
- Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property.
- Use the 4 operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative.
- Use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals.
- Recognise and use relationships between operations including inverse operations.
- Use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations.
- Interpret and compare numbers in standard form A x 10n 1≤A<10, where n is a positive or negative integer or 0.
- Work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and $\frac{7}{2}$ or 0.375 and $\frac{3}{8}$).
- Define percentage as ‘number of parts per hundred’, interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express 1 quantity as a percentage of another, compare 2 quantities using percentages, and work with percentages greater than 100%.
- Interpret fractions and percentages as operators.

- Use standard units of mass, length, time, money and other measures, including with decimal quantities.
- Round numbers and measures to an appropriate degree of accuracy e.g. to a number of decimal places or significant figures.
- Use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a<x\leq b$.
- Use a calculator and other technologies to calculate results accurately and then interpret them appropriately.
- Appreciate the infinite nature of the sets of integers, real and rational numbers.

Algebra

- Use and interpret algebraic notation, including:
  ab in place of $a \times b$
  3y in place of $y + y + y$ and $3 \times y$
  a^2 in place of $a \times a$, a^3 in place of $a \times a \times a$; a^2b in place of $a \times a \times b$
  $\frac{a}{b}$ in place of $a \div b$
  coefficients written as fractions rather than as decimals.
  brackets.
- Substitute numerical values into formulae and expressions, including scientific formulae.
- Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors.
- Simplify and manipulate algebraic expressions to maintain equivalence by:
  collecting like terms.
  multiplying a single term over a bracket.
  taking out common factors.
  expanding products of 2 or more binomials.
- Understand and use standard mathematical formulae; rearrange formulae to change the subject.
- Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs.
- Use algebraic methods to solve linear equations in 1 variable (including all forms that require rearrangement).
- Work with coordinates in all 4 quadrants.
- Recognise, sketch and produce graphs of linear and quadratic functions of 1 variable with appropriate scaling, using equations in x and y and the Cartesian plane.
- Interpret mathematical relationships both algebraically and graphically.
- Reduce a given linear equation in 2 variables to the standard form $y = mx + c$; calculate and interpret gradients and intercepts of graphs of such linear equations numerically, graphically and algebraically.

- Use linear and quadratic graphs to estimate values of y for given values of x and vice versa and to find approximate solutions of simultaneous linear equations.
- Find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs.
- Generate terms of a sequence from either a term-to-term or a position-to-term rule.
- Recognise arithmetic sequences and find the nth term.
- Recognise geometric sequences and appreciate other sequences that arise.

Ratio, Proportion and Rates of Change

- Change freely between related standard units e.g. time, length, area, volume/capacity, mass.
- Use scale factors, scale diagrams and maps.
- Express 1 quantity as a fraction of another, where the fraction is less than 1 and greater than 1.
- Use ratio notation, including reduction to simplest form.
- Divide a given quantity into 2 parts in a given part:part or part:whole ratio; express the division of a quantity into 2 parts as a ratio.
- Understand that a multiplicative relationship between 2 quantities can be expressed as a ratio or a fraction.
- Relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions.
- Solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics.
- Solve problems involving direct and inverse proportion, including graphical and algebraic representations.
- Use compound units such as speed, unit pricing and density to solve problems.

Geometry

- Derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms (including cylinders).
- Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes.
- Draw and measure line segments and angles in geometric figures, including interpreting scale drawings.
- Derive and use the standard ruler and compass constructions (perpendicular bisector of a line segment, constructing a perpendicular to a given line from/at a given point, bisecting a given angle); recognise and use the perpendicular distance from a point to a line as the shortest distance to the line.
- Describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric.

- Use the standard conventions for labelling the sides and angles of triangle ABC, and know and use the criteria for congruence of triangles
- Derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures [for example, equal lengths and angles] using appropriate language and technologies.
- Identify properties of, and describe the results of, translations, rotations and reflections applied to given figures.
- Identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids.
- Apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles.
- Understand and use the relationship between parallel lines and alternate and corresponding angles.
- Derive and use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons.
- Apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and sides, including Pythagoras' Theorem, and use known results to obtain simple proofs.
- Use Pythagoras' Theorem and trigonometric ratios in similar triangles to solve problems involving right-angled triangles.
- Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D
- Interpret mathematical relationships both algebraically and geometrically.

Probability

- Record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes, using appropriate language and the 0-1 probability scale.
- Understand that the probabilities of all possible outcomes sum to 1.
- Enumerate sets and unions/intersections of sets systematically, using tables, grids and Venn diagrams.
- Generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities.

Statistics

- Describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers).
- Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data.
- Describe simple mathematical relationships between 2 variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs.

Key Stage 4

Mathematics is a compulsory GCSE subject - Edexcel GCSE Mathematics 1MA1

Learning Intentions
General • Develop fluent knowledge, skills and understanding of mathematical methods and concepts. • Acquire, select and apply mathematical techniques to solve problems. • Reason mathematically, make deductions and inferences, and draw conclusions. • Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context. **Number** • Apply systematic listing strategies, {including use of the product rule for counting} • {estimate powers and roots of any given positive number} • calculate with roots, and with integer {and fractional} indices • calculate exactly with fractions, {surds} and multiples of π {simplify surd expressions involving squares [for example √12 = √(4 × 3) = √4 × √3 = 2√3] and rationalise denominators} • calculate with numbers in standard form A × 10n, where 1 ≤ A < 10 and n is an integer • {change recurring decimals into their corresponding fractions and vice versa} • identify and work with fractions in ratio problems • apply and interpret limits of accuracy when rounding or truncating, {including upper and lower bounds} **Algebra** • Simplify and manipulate algebraic expressions (including those involving surds {and algebraic fractions}) by: factorising quadratic expressions of the form x2 + bx + c, including the difference of 2 squares; {factorising quadratic expressions of the form ax2 + bx + c}. simplifying expressions involving sums, products and powers, including the laws of indices. • Know the difference between an equation and an identity; argue mathematically to show algebraic expressions are equivalent, and use algebra to support and construct arguments {and proofs}.

- Where appropriate, interpret simple expressions as functions with inputs and outputs; {interpret the reverse process as the 'inverse function'; interpret the succession of 2 functions as a 'composite function'}.
- Use the form y = mx + c to identify parallel {and perpendicular} lines; find the equation of the line through 2 given points, or through 1 point with a given gradient.
- Identify and interpret roots, intercepts and turning points of quadratic functions graphically; deduce roots algebraically {and turning points by completing the square}.
- Recognise, sketch and interpret graphs of linear functions, quadratic functions, simple cubic functions, the reciprocal function $y = \frac{1}{x}$ with $x \neq 0$, {the exponential function y = kx for positive values of k, and the trigonometric functions (with arguments in degrees) y = sin x, y = cos x and y = tan x for angles of any size}.
- Sketch translations and reflections of the graph of a given function.
- Plot and interpret graphs (including reciprocal graphs {and exponential graphs}) and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration
- Calculate or estimate gradients of graphs and areas under graphs (including quadratic and other non-linear graphs), and interpret results in cases such as distance-time graphs, velocity-time graphs and graphs in financial contexts.
- Recognise and use the equation of a circle with centre at the origin; find the equation of a tangent to a circle at a given point}.
- Solve quadratic equations {including those that require rearrangement} algebraically by factorising, {by completing the square and by using the quadratic formula}; find approximate solutions using a graph.
- Solve 2 simultaneous equations in 2 variables (linear/linear {or linear/quadratic}) algebraically; find approximate solutions using a graph
- Find approximate solutions to equations numerically using iteration.
- Translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or 2 simultaneous equations), solve the equation(s) and interpret the solution.
- solve linear inequalities in 1 {or 2} variable {s}, {and quadratic inequalities in 1 variable}; represent the solution set on a number line, {using set notation and on a graph}.
- Recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences, quadratic sequences, and simple geometric progressions (r^n where n is an integer, and r is a positive rational number {or a surd}) {and other sequences}.
- Deduce expressions to calculate the nth term of linear {and quadratic} sequences.

Ratio, Proportion and Rates of Change

- Compare lengths, areas and volumes using ratio notation and/or scale factors; make links to similarity (including trigonometric ratios).
- Convert between related compound units (speed, rates of pay, prices, density, pressure) in numerical and algebraic contexts.

- Understand that X is inversely proportional to Y is equivalent to X is proportional to $\frac{1}{Y}$; {construct and} interpret equations that describe direct and inverse proportion.
- Interpret the gradient of a straight-line graph as a rate of change; recognise and interpret graphs that illustrate direct and inverse proportion.
- Interpret the gradient at a point on a curve as the instantaneous rate of change; apply the concepts of instantaneous and average rate of change (gradients of tangents and chords) in numerical, algebraic and graphical contexts}.
- Set up, solve and interpret the answers in growth and decay problems, including compound interest {and work with general iterative processes}.

Geometry and Measures

- Interpret and use fractional {and negative} scale factors for enlargements.
- Describe the changes and invariance achieved by combinations of rotations, reflections and translations}.
- identify and apply circle definitions and properties, including: centre, radius, chord, diameter, circumference, tangent, arc, sector and segment.
- Apply and prove the standard circle theorems concerning angles, radii, tangents and chords, and use them to prove related results}.
- Construct and interpret plans and elevations of 3D shapes.
- Interpret and use bearings.
- Calculate arc lengths, angles and areas of sectors of circles.
- Calculate surface areas and volumes of spheres, pyramids, cones and composite solids.
- Apply the concepts of congruence and similarity, including the relationships between lengths, {areas and volumes} in similar figures.
- Apply Pythagoras' Theorem and trigonometric ratios to find angles and lengths in right-angled triangles {and, where possible, general triangles} in 2 {and 3} dimensional figures.
- Know the exact values of sin θ and cos θ for θ = 0°, 30°, 45°, 60° and 90°; know the exact value of tan θ for θ = 0°, 30°, 45°, 60°
- Know and apply the sine rule, $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$, and cosine rule, $a^2 = b^2 + c^2 - 2bc \cos A$, to find unknown lengths and angles}
- Know and apply Area = $\frac{1}{2}$ ab sin C to calculate the area, sides or angles of any triangle}.
- Describe translations as 2D vectors.
- Apply addition and subtraction of vectors, multiplication of vectors by a scalar, and diagrammatic and column representations of vectors; {use vectors to construct geometric arguments and proofs}.

Probability

- Apply the property that the probabilities of an exhaustive set of mutually exclusive events sum to 1.
- Use a probability model to predict the outcomes of future experiments; understand that empirical unbiased samples tend towards theoretical probability distributions, with increasing sample size.
- Calculate the probability of independent and dependent combined events, including using tree diagrams and other representations, and know the underlying assumptions.
- Calculate and interpret conditional probabilities through representation using expected frequencies with two-way tables, tree diagrams and Venn diagrams.

Statistics

- Infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling
- Interpret and construct tables and line graphs for time series data
- Construct and interpret diagrams for grouped discrete data and continuous data, ie, histograms with equal and unequal class intervals and cumulative frequency graphs, and know their appropriate use.
- Interpret, analyse and compare the distributions of data sets from univariate empirical distributions through:
  Appropriate graphical representation involving discrete, continuous and grouped data, {including box plots}.
  Appropriate measures of central tendency (including modal class) and spread {including quartiles and inter-quartile range}.
- Apply statistics to describe a population.
- Use and interpret scatter graphs of bivariate data; recognise correlation and know that it does not indicate causation; draw estimated lines of best fit; make predictions; interpolate and extrapolate apparent trends whilst knowing the dangers of so doing.

Curriculum Assessment

Key Stage 3 Indicative Competencies

Grade	Algebra	Number	Ratio and Proportion	Probability and Statistics	Geometry and Measures
8+	• Factorise and solve quadratic expressions • Rearranging formulae • Forming and solving equations • Simultaneous equations	• Multiplying and dividing standard form • Reverse percentages • Recurring decimals to fractions	• Inverse proportion • Compound interest • Similar shapes (proof)	• Probability Trees (non-replacement) • Sampling • Box Plots • Cumulative Frequency	• Enlargement with negative and fractional scale factors • Compound shapes • Trigonometry • Loci • Pythagoras
7	• Solving algebraic fractions • Solving equations graphically • Drawing quadratic graphs • Solving Inequalities • Finding equations of straight lines	• Reverse Percentages • Writing standard form • Percentages of amounts • Bounds	• Direct proportion • Percentage change • Reverse percentage problems • Simple interest • Distance-time graphs	• Sample space diagrams • Venn diagrams • Averages from tables • Probability Trees (replacement)	• Translation • Volume and surface area of triangular prisms • Circles (cylinders, spheres) • Angle rules (interior and exterior) • Bearings
6	• Expanding quadratic brackets • Finding gradients • Midpoints of lines	• Indices • Rounding (sig fig) • HCF and LCM • Prime Factors	• Ratio and fractions • Increase and decrease of percentages • Compound units	• Discrete and Continuous Data • Experimental probability • Scatter diagrams • Pie Charts	• Reflection • Rotation • Areas of trapezia • Volume and surface area of cubes & cuboids
5	• Solving 2-step equations • Substitution • Nth term rules • Plot graphs from equations	• Factors and Multiples • Finding percentages • Significant Figures • Decimals (x/÷) • Fractions (+/-)	• Sharing ratio • Proportion • Exchange rates	• Mutually exclusive events • Two Way tables • Averages and Range • Vertical line charts • Frequency tables	• Angles on a line/at a point • Construction • Plans and elevations • Areas of triangles, rectangles…
4	• Expanding brackets • Linear factorising	• Money • Negatives • Fractions (x/÷)	• Value for money	• Calculating probabilities	• Rotational symmetry • Perimeter
3	• Simplifying positive terms • Simplifying multiplication and division	• Reading tables • Multiplication and Division	• Simplifying ratio • Using ratio for recipe questions	• Pictograms • Listing outcomes	• Line symmetry • Calculating angles • Properties of solids
2	• Plot coordinates in all 4 quadrants • Term to term sequences	• Reading scales • Ordering decimals • Addition and Subtraction		• Bar charts • Probability scale	• Naming 3d shapes • Names of angles • Nets
1	• Plot coordinates in 1st quadrant • Algebraic notation	• Place value • Ordering integers		• Tally charts	• Naming 2d shapes

Key Stage 4 GCSE Scheme of Assessment

Edexcel GCSE Mathematics Scheme of Assessment

Curriculum Overview

Key Stage 3

Year Group	Autumn Term	Spring Term	Summer Term
7	Basics, Place Value, Calendar and Money. Negative Numbers Squares, Cubes, Roots and BIDMAS Indices Rounding and Estimating Factors, Multiples and Primes Calculator Skills Standard Form Fractions	Decimals Percentages FDP Using Ratio Simplifying Brackets Substitution and Sequences Solving Equations	Graphs Area and Perimeter Angles Transformations Averages and the Range Graphs and Charts Probability
8	Basics, Place Value, Calendar and Money. Types of Numbers Rounding and Estimating Factors, Multiples and Primes Calculator Skills Fractions Standard Form FDP	Using Ratio Proportion Simplifying Substitution and Sequences Solving Equations Simultaneous Equations Graphs	Area and Perimeter Pythagoras' Theorem Angles Transformations Averages and the Range Graphs and Charts Probability
9	Number Calculations (add, subtract, multiply and divide) Decimal Numbers Calculating with Indices Zero, Negative and Fractional Indices Place Value Factors and Multiples Squares, Cubes and Roots Index Numbers	Solving Equations Introducing Inequalities Solving Inequalities Using Formulae Sequences Nth Term Properties of Shapes Angles Rule Angles in Parallel Lines Interior and Exterior Angles	Volume Surface Area Plans and Elevations Reflections Translations Rotations Enlargement Bearings Scale Drawings Constructions

	Standard Form Algebraic Notation Simplifying Expressions Substitution Algebraic Indices Expanding and Factorising Expanding Brackets Factorising Equations Formulae Rearranging Formulae Linear sequences Non-linear sequences Frequency Tables Two-Way Tables Representing Data Stem and Leaf Diagrams Pie Charts Scatter Graphs Frequency Polygons Stem and Leaf Probability Working with Fractions Adding and Subtracting Fractions Multiplying Fractions Dividing Fractions FDP Conversions Calculating percentages Interest and Depreciation Algebraic Proportion Compound Interest and Depreciation	Angle Rules Angle Properties of Triangles and Quadrilaterals Averages and the Range Averages from Frequency Tables Perimeter/Area of Rectangles, Triangles and Parallelograms Perimeter/Area of Trapezia and Compound Shapes Area and Circumference of Circles Volume of Prisms Surface Area of Prisms Pythagoras' Theorem Trigonometry Linear Graphs y=mx+c Parallel and Perpendicular Lines Quadratic Graphs Cubic and Reciprocal Graphs Travel Graphs Perimeter and Area Units and Accuracy Circles Sectors	Loci

Key Stage 4

Year Group	Autumn Term	Spring Term	Summer Term
10	Number Calculations (add, subtract, multiply and divide) Decimal Numbers Calculating with Indices Zero, Negative and Fractional Indices Place Value Factors and Multiples Squares, Cubes and Roots Index Numbers Standard Form Algebraic Notation Simplifying Expressions Substitution Algebraic Indices Expanding and Factorising Expanding Brackets Factorising Equations Formulae Rearranging Formulae Linear sequences Non-linear sequences Frequency Tables Two-Way Tables Representing Data Stem and Leaf Diagrams Pie Charts Scatter Graphs	Solving Equations Introducing Inequalities Solving Inequalities Using Formulae Sequences Nth Term Properties of Shapes Angles Rule Angles in Parallel Lines Interior and Exterior Angles Angle Rules Angle Properties of Triangles and Quadrilaterals Averages and the Range Averages from Frequency Tables Perimeter/Area of Rectangles, Triangles and Parallelograms Perimeter/Area of Trapezia and Compound Shapes Area and Circumference of Circles Volume of Prisms Surface Area of Prisms Pythagoras' Theorem Trigonometry Linear Graphs y=mx+c Parallel and Perpendicular Lines Quadratic Graphs Cubic and Reciprocal Graphs	Number Calculations (add, subtract, multiply and divide) Decimal Numbers Calculating with Indices Zero, Negative and Fractional Indices Place Value Factors and Multiples Squares, Cubes and Roots Index Numbers Standard Form Algebraic Notation Simplifying Expressions Substitution Algebraic Indices Expanding and Factorising Expanding Brackets Factorising Equations Formulae Rearranging Formulae Linear sequences Non-linear sequences Frequency Tables Two-Way Tables Representing Data Stem and Leaf Diagrams Pie Charts Scatter Graphs

	Frequency Polygons Stem and Leaf Probability Working with Fractions Adding and Subtracting Fractions Multiplying Fractions Dividing Fractions FDP Conversions Calculating percentages Interest and Depreciation Algebraic Proportion Compound Interest and Depreciation	Travel Graphs Perimeter and Area Units and Accuracy Circles Sectors Circle Theorems Applied Circle Theorems Proof Algebraic Fractions Surds	Frequency Polygons Stem and Leaf Probability Working with Fractions Adding and Subtracting Fractions Multiplying Fractions Dividing Fractions FDP Conversions Calculating percentages Interest and Depreciation Algebraic Proportion Compound Interest and Depreciation
11	Number Calculations (add, subtract, multiply and divide) Decimal Numbers Calculating with Indices Zero, Negative and Fractional Indices Place Value Factors and Multiples Squares, Cubes and Roots Index Numbers Standard Form Algebraic Notation Simplifying Expressions Substitution Algebraic Indices Expanding and Factorising Expanding Brackets Factorising Equations Formulae	Solving Equations Introducing Inequalities Solving Inequalities Using Formulae Sequences Nth Term Properties of Shapes Angles Rule Angles in Parallel Lines Interior and Exterior Angles Angle Rules Angle Properties of Triangles and Quadrilaterals Averages and the Range Averages from Frequency Tables Perimeter/Area of Rectangles, Triangles and Parallelograms Perimeter/Area of Trapezia and Compound Shapes Area and Circumference of Circles	Revision

	Rearranging Formulae Linear sequences Non-linear sequences Frequency Tables Two-Way Tables Representing Data Stem and Leaf Diagrams Pie Charts Scatter Graphs Frequency Polygons Stem and Leaf Probability Working with Fractions Adding and Subtracting Fractions Multiplying Fractions Dividing Fractions FDP Conversions Calculating percentages Interest and Depreciation Algebraic Proportion Compound Interest and Depreciation Volume Surface Area Plans and Elevations Reflections Translations Rotations Enlargement Bearings Scale Drawings Constructions Loci	Volume of Prisms Surface Area of Prisms Pythagoras' Theorem Trigonometry Linear Graphs y=mx+c Parallel and Perpendicular Lines Quadratic Graphs Cubic and Reciprocal Graphs Travel Graphs Perimeter and Area Units and Accuracy Circles Sectors Circle Theorems Applied Circle Theorems Proof Algebraic Fractions Surds Probability Basics Combined Events Relative Frequency Independent Events and Tree Diagrams Conditional Probability Functions Proof Vectors and Vector Notation Vector Arithmetic Parallel Vectors and Collinear Points Solving Geometric Problems Direct and Inverse Proportion Transformation of Graphs Exponential Graphs	

Curriculum Content

Year 7 (Higher Content)

Topic	Number	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems						
Lesson Learning Intentions	Addition and Subtraction • To display questions in column method • To add and subtract in single columns • To add and subtract across columns where required Multiplication and Division • Multiply and divide with 10s, 100s, 1000s • Multiply 2 digit numbers with 1/2 digit numbers • To divide using bus stop Place Value • Understand decimal and integer place values • Write figures using words • Order numbers (with decimals) Calendar and Clocks • Read and use calendars • Tell the time using an analogue clock • Convert times between 12- and 24-hour clock Money • Recognise different values of coins • Calculate amounts of money using pounds and pence • Solve money problems (e.g. change) Ordering Numbers • Order numbers on a number line • Understand temperature with negatives Negative Numbers - Addition and Subtraction • Identify whether you 'move left or right' on a number line • Add and subtract using negative numbers	✓			✓	✓	

	• Solve problems with addition and subtraction Negative Numbers - Multiplication and Division • Decide whether the answer will be positive or negative • Multiply and Divide using negative numbers • Solve problems with negative numbers Squares, Cubes and Roots • Learn the square and roots up to 12 squared • Learn the cubes and cube roots up to 5 cubed • Estimate a square root BIDMAS • Identify the order of calculations • Solve BIDMAS problems without negative numbers • Solve BIDMAS problems with negatives Rounding • Round numbers to different place values (10, 100, 1000) • Round numbers to different decimal points Rounding and Estimating • Round numbers to significant figures • Estimate simple calculations • Estimate calculations with more than one step Basic Powers • Understand how powers work • Understand different roots • Anything with power 0 = 1 More Powers • Use fractional powers where the coefficient is 1 • Use fractional powers where the coefficient is greater than 1 • Use negative powers Indices Rules • Learn the laws of indices (with numbers only) • Apply the laws to fractional/negative powers Factors and Multiples						

	• Define a factor and a multiple • Find factors and multiples of numbers HCF/LCM • List factors and multiples of numbers • Identify the HCF and LCM of two numbers • Solve problems with HCF/LCM Product of Primes • Define a prime number (a number with only two factors) • Draw a factor tree • Express a number as a product of its prime numbers Calculator Skills • Powers and Roots • Understand the different symbols on a calculator • Use the square and square root button on a calculator • Find other powers and roots of more complicated numbers • Identify the fraction buttons on a calculator • Solve calculations with fractions • Solve calculations with fractions and powers Powers of 10 • Understand power notation • Multiply by powers of 10 • Divide by powers of 10 Standard Form Notation • Understand the structure of numbers in standard form • Convert between normal numbers and standard form Using Standard Form • Add and subtract numbers in standard form (by converting) • Multiply and divide numbers in standard form						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning		✓	✓	✓	✓	

	• Attempt exam questions with problem-solving						
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Algebraic Notation • BIDMAS • Find missing numbers from equations • Understand what simple notation means (3n, n2, 3n + 2 etc) Collecting Like Terms • Simplify expressions by collecting simple like terms with positive and negative coefficients Multiplying and Dividing Terms • Multiply terms with positive and negative coefficients Expanding Brackets • Expanding single • Expanding double brackets Substitution • Substitute positive and negative integers into simple expressions • Substitute values into worded formulae Sequences and Rules • Find term-to-term rules in a linear sequence • Find missing terms in a sequence	✓			✓	✓	

	• Introduce special sequences (Fibonacci, triangular numbers…) Nth term • Find the nth term from ascending and descending sequences Using the Nth Term • Find terms in a sequence using the nth term • Determine whether a number is in a sequence using the nth term One Step Equations • Solve equations in the form x + b = y • Solve equations in the form x - b = y • Solve equations in the form ax = y • Solve equations in the form of x/a=y Two Step Equations • Solve equations in the form ax + b = y • Solve equations in the form of x/a=y • Solve equations in the form of x/a+b=y Equations with Brackets • Expand a simple bracket a(x + y) • Expand and solve an equation Forming and Solving Equations • Create expressions for perimeter and solve algebraically • Construct equations from worded examples Coordinates • Plot coordinates onto a Cartesian graph in positive quadrant • Read coordinates from a Cartesian graph in positive quadrant • Read and Plot coordinates from a Cartesian graph in all 4 quadrants Straight Line basics • Lines parallel to x- and y- axes • y = x • y = -x • Drawing table of values • Drawing a graph from a table of values Substituting values into a graph						

	• Substitute values into a simple values table to create a linear graph for y = x + c • Substitute values to create a graph for y = mx + c • Discover whether a point will be on a certain graph Quadratic Graphs • Complete a table of values for a quadratic equation • Plot points and draw a quadratic graph						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	Simplifying and Equivalent Fractions • Shade a fraction of a shape • Simplify fractions • Find equivalent fractions • Order fractions based on equivalent denominators Mix and Improper Fractions • Identify what mixed numbers and improper fractions are • Convert between mixed numbers and improper fractions Add and Subtract Fractions • Add and subtract using common denominators • Add and subtract with different denominators Mixed Number Operations • Add and subtract with mixed numbers • Convert answers into mixed numbers in their simplest form Multiply and Divide Fractions • Multiply fractions • Divide fractions Fraction of an Amount • Find a fraction of an amount where the numerator is 1 • Find a fraction of an amount where the numerator is more than 1 Mixed Number Operations • Multiply and Divide with mixed numbers • Convert answers into mixed numbers in their simplest form Ordering Decimals • Order decimals by size Adding and Subtracting decimals • Add and subtract decimals by column method Multiplying and Dividing with decimals	✓			✓	✓	

	• Multiply/Divide integers and decimals by 10, 100, 1000 • Multiply/Divide integers and decimals by integers/decimals Percentage of Amounts (Non Calc) • Find simple percentages of whole numbers (ie 50%, 25%, 10%, 5%, 1%) • Use simple percentages to solve problems Percentage of amounts (Calc) • Use a calculator to find harder percentages • Using the % button • Multipliers Increasing and Decreasing Amounts • Find solutions following a percentage change (simple and harder percentages with and without a calculator) Simple FDP • Convert between basic fractions, decimals and percentages • Solve problems using basic FDP Complex FDP • Convert between complex fractions, decimals and percentages • Solve problems using complex FDP Ratio Basics • Learning ratio notation • Simplification with 2/3 parts • Find amounts from a 2/3 part ratio Ratio Problems • Recipe questions • Unitary method • Best buys						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets	✓	✓	✓	✓	✓	

	Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/						
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Length and Perimeters • Understand the term perimeter • Find perimeters of different shapes by adding lengths Area • Find areas of squares • Find areas of rectangles (and parallelograms) • Find areas of triangles • Reverse area Compound Shapes • Understand the term compound shape • Find missing lengths from sides • Find the perimeter of a compound shape • Find the area of rectilinear shapes Angle Basics • Define/estimate acute, obtuse, right and reflex angles • Note angles on shapes correctly • Recognise angle notation Calculating Angles • Calculate missing angles from a right angle • Calculate missing angles along a straight line • Calculate missing angles inside a triangle • Calculate missing angles at a point Angles problems • Practise problem solving of triangle-based questions • Calculate missing angles in a quadrilateral/isosceles triangle Measuring Angles • Use a ruler to construct accurately measured straight lines	✓			✓	✓	

	• Use a protractor to measure angles • Use a protractor to construct angles Reflection • Reflect a shape across a mirror line parallel to x- or y-axis • Reflect a shape across y = x or y = -x • Describing a reflection Rotation • Rotational symmetry • Rotate a shape by a number of degrees from a point on the shape • Rotate a shape a certain number of degrees from a coordinate on a grid • Describing a rotation Translation • Understand the word Congruence. • Use a description to translate a shape • Use a vector to translate a shape Enlargement • Enlarge a shape by a positive scale factor • Enlarge a shape with a positive scale factor and a centre of enlargement • Enlarge a shape with a negative/fractional scale factor (with a centre of enlargement)						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf	✓					✓

	Mathswatch https://vle.mp[athswatch.co.uk/vle/						

Topic	Statistics and Probability	C	R	E	A	T	E
NC Learning Intention	Develop understanding of different methods of statistical representation and analyses and calculate probabilities of events.						
Lesson Learning Intentions	Averages and the Range • What is an average? • Mean, Mode, Median, Range from a list of data Averages and the range from frequency tables • Mean, Mode, Range from a frequency table • Median from a frequency table • Estimated mean from a grouped frequency table Reading and Interpreting graphs • Draw and interpret data from; Bar Graphs, Pictograms, Line Graphs and Tally Charts Pie Charts • Draw and interpret data from pie charts Scatter Graphs • Draw a line of best fit • State and interpret correlation • Use interpolation to estimate data Probability Scale • Use words to describe probability • Place probabilities on a scale • Use fractions to show probability • Find probability of an event (e.g. die roll, coin flip, spinner) Fractions and Probability • Place numerical probabilities on a scale • Find probabilities using fractions as descriptors Probability sum to 1 • Find probabilities using sum to 1 • Use experimental probabilities	✓			✓	✓	

	Combined Events • Sample Space Diagrams						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Year 8 (Higher Content)

Topic	Number	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems						
Lesson Learning Intentions	Addition and Subtraction • To display questions in column method • To add and subtract in single columns • To add and subtract across columns where required Multiplication and Division • Multiply and divide with 10s, 100s, 1000s • Multiply 2 digit numbers with 1/2 digit numbers • To divide using bus stop Place Value • Understand decimal and integer place values • Write figures using words • Order numbers (with decimals) Calendar and Clocks • Read and use calendars • Tell the time using an analogue clock • Convert times between 12- and 24-hour clock Money • Recognise different values of coins • Calculate amounts of money using pounds and pence • Solve money problems (e.g. change) Addition and Subtraction	✓			✓	✓	

	• Order numbers • Add and subtract using negative numbers • Solve problems with addition and subtraction Multiplication and Division • Multiply and Divide using negative numbers • Solve problems with negative numbers Squares, Cubes and Roots • Learn the square and roots up to 12 squared • Learn the cubes and cube roots up to 5 cubed • Estimate a square root BIDMAS • Identify the order of calculations • Solve BIDMAS problems without negative numbers • Solve BIDMAS problems with negatives Rounding • Round numbers to different place values (10, 100, 1000) • Round numbers to different decimal points Rounding and Estimating • Round numbers to significant figures • Estimate simple calculations • Estimate calculations with more than one step Factors and Multiples • Define a factor and a multiple • Find factors and multiples of numbers HCF/LCM • List factors and multiples of numbers • Identify the HCF and LCM of two numbers • Solve problems with HCF/LCM Product of Primes • Define a prime number (a number with only two factors) • Draw a factor tree • Express a number as a product of its prime numbers						

	• Calculate HCF and LCM using the product of primes Powers and Roots • Understand the different symbols on a calculator • Use the square and square root button on a calculator • Find other powers and roots of more complicated numbers Fractions • Identify the fraction buttons on a calculator • Solve calculations with fractions • Solve calculations with fractions and powers Trigonometry • Identify the trigonometric functions on a calculator • Solve calculations with trigonometric functions Powers of 10 • Understand power notation • Multiply by powers of 10 • Divide by powers of 10 Standard Form Notation • Understand the structure of numbers in standard form • Convert between normal numbers and standard form • Order numbers in/not in standard form Using Standard Form • Add and subtract numbers in standard form (by converting) • Multiply and divide numbers in standard form						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests		✓		✓	✓	

	Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term						
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Algebraic Notation • BIDMAS • Find missing numbers from equations • Understand what simple notation means (3n, n2, 3n + 2 etc) Collecting Like Terms • Simplify expressions by collecting simple like terms with positive and negative coefficients Multiplying and Dividing Terms • Multiply terms with positive and negative coefficients Expanding Brackets • Expanding single and double brackets Substitution • Substitute positive and negative integers into simple expressions • Substitute values into worded formulae Sequences and Rules • Find term-to-term rules in a linear sequence • Find missing terms in a sequence • Introduce special sequences (Fibonacci, triangular numbers…) Nth term • Find the nth term from ascending and descending sequences	✓			✓	✓	

	Using the Nth Term • Find terms in a sequence using the nth term • Determine whether a number is in a sequence using the nth term One Step Equations • Solve equations in the form x + b = y • Solve equations in the form x - b = y • Solve equations in the form ax = y • Solve equations in the form of x/a=y Two Step Equations • Solve equations in the form ax + b = y • Solve equations in the form of x/a=y • Solve equations in the form of x/a+b=y Equations with Brackets • Expand a simple bracket a(x + y) • Expand and solve an equation Forming and Solving Equations • Create expressions for perimeter and solve algebraically • Construct equations from worded examples Simultaneous Equations: Solving Using Elimination • Use elimination with one pair of coefficients = 1 • Use elimination with same coefficients but >1 • Use elimination with different coefficients Solving Using Substitution • Use substitution without rearrangement • Use substitution with rearrangements required • Use substitution with different coefficients Solving Graphically • Draw lines of y=mx+c • Solve simultaneous equations graphically Coordinates • Plot coordinates onto a Cartesian graph in positive quadrant • Read coordinates from a Cartesian graph in positive quadrant						

	• Read and Plot coordinates from a Cartesian graph in all 4 quadrants Straight Line basics • Lines parallel to x- and y- axes • y = x • y = -x Drawing table of values • Drawing a graph from a table of values Substituting values into a graph • Substitute values into a simple values table to create a linear graph for y = x + c • Substitute values to create a graph for y = mx + c • Discover whether a point will be on a certain graph Quadratic Graphs • Complete a table of values for a quadratic equation of the form y=$x^2 + c$ • Complete a table of values for a quadratic equation of the form y=$x^2 + bx + c$ • Plot points and draw a quadratic graph						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	FDP Conversions Decimals • Adding and Subtracting Decimals • Multiplying and Dividing Decimals Percentage of an amount • Find percentages of an amount with and without a calculator Percentage Increase and Decrease • Increase and decrease values by a percentage, with and without a calculator Percentage Change • Calculate percentage changes, with and without a calculator Compound Interest and depreciation • Use the formula to calculate compound interest and depreciation Ratio Basics • Learning ratio notation • Simplification with 2/3 parts • Find amounts from a 2/3 part ratio Ratio Problems • Recipe questions	✓			✓	✓	

	• Unitary method • Best buys Percentage of Amounts (Non Calc) • Find simple percentages of whole numbers (ie 50%, 25%, 10%, 5%, 1%) • Use simple percentages to solve problems Direct Proportion • Find proportions using ratio and unitary method • Find proportions using multiplication or division • Direct Proportion: y = kx Inverse Proportion • Understand what inverse proportion is • Use a graphical representation of inverse proportion (e.g. time and speed) • Inverse Proportion: y = $\frac{k}{x}$ Graphs and Direct Proportion • Show direct proportion on a graph • Construct a conversion graph (e.g. miles and km)						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Length and Perimeters • Understand the term perimeter • Find perimeters of different shapes by adding lengths Area • Find areas of squares • Find areas of rectangles (and parallelograms) • Find areas of triangles • Find the area of trapezia • Reverse area Compound Shapes • Understand the term compound shape • Find missing lengths from sides • Find the perimeter of a compound shape • Find the area of rectilinear shapes Introduction to Pythagoras • Investigate relationship between squares of sides and right-angled triangles	✓			✓	✓	

	• Formula • Use Pythagoras's Theorem to find the hypotenuse 2 Finding Lengths • Use Pythagoras's Theorem to find the hypotenuse • Use Pythagoras's Theorem to find one of the shorter sides • Use Pythagoras to decide if a triangle is right-angled Solving Problems using Pythagoras • Find the diagonal length of a cuboid using Pythagoras's Theorem • Find the height of a square-based pyramid • Solve problems involving ships, ladders, kites etc Angle Basics • Define/estimate acute, obtuse, right and reflex angles • Note angles on shapes correctly • Recognise angle notation Calculating Angles • Calculate missing angles from a right angle • Calculate missing angles along a straight line • Calculate missing angles inside a triangle • Calculate missing angles at a point Angles problems • Practise problem solving of triangle-based questions • Calculate missing angles in a quadrilateral/isosceles triangle Measuring Angles • Use a ruler to construct accurately measured straight lines • Use a protractor to measure angles • Use a protractor to construct angles Reflection • Reflect a shape across a mirror line parallel to x- or y-axis • Reflect a shape across y = x or y = -x • Describing a reflection Rotation • Rotational symmetry						

	• Rotate a shape by a number of degrees from a point on the shape • Rotate a shape a certain number of degrees from a coordinate on a grid • Describing a rotation Translation • Understand the word Congruence. • Use a description to translate a shape • Use a vector to translate a shape Enlargement • Enlarge a shape by a positive scale factor • Enlarge a shape with a positive scale factor and a centre of enlargement • Enlarge a shape with a negative/fractional scale factor (with a centre of enlargement)						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mp[athswatch.co.uk/vle/	✓					✓

Topic	Statistics and Probability	C	R	E	A	T	E
NC Learning Intention							
Lesson Learning Intentions	Averages and the Range • What is an average? • Mean, Mode, Median, Range from a list of data • Calculate missing data given an average or the range Averages and the range from frequency tables • Mean, Mode, Median and Range from a frequency table • Mean Mode Median and Range from a grouped frequency table Reading and Interpreting graphs • Draw and interpret data from; Bar Graphs, Pictograms, Line Graphs and Tally Charts Pie Charts • Draw and interpret data from pie charts Scatter Graphs • Draw a line of best fit • State and interpret correlation • Use interpolation to estimate data Probability Scale • Use words to describe probability	✓			✓	✓	

	• Place probabilities on a scale • Use fractions to show probability • Find probability of an event (e.g. die roll, coin flip, spinner) Fractions and Probability • Place numerical probabilities on a scale • Find probabilities using fractions as descriptors Probability sum to 1 • Find probabilities using sum to 1 • Use experimental probabilities Combined Events • Sample Space Diagrams • Combinations						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Year 9 (Higher Only)

Topic	Number	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems						
Lesson Learning Intentions	Number and Reasoning • Adding, Subtracting, Multiplying, Dividing • Combinations Place Value and Estimating • Rounding • Using calculations • Estimation HCF and LCM • Prime factors • Highest common factors	✓			✓	✓	

	• Lowest common multiples Indices • Using powers and roots • Index laws • Zero, negative and fractional powers Standard Form • Converting in and out of standard form • Adding and subtracting • Multiplying and dividing						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Expressions and Simplifying • Understanding algebraic conventions • Collecting like terms • Multiplying/dividing terms Substitution and Formulae • Substitution • Rearranging formulae Expanding and Factorising • Expanding single brackets • Expanding double brackets • Factorising into single brackets	✓			✓	✓	

	• Factorising quadratics • Factorising quadratics with x^2 coefficient > 1 Equations • Solving one-step equations • Solving two-step equations • Solving multi-step equations Sequences • Nth term of linear sequences • Nth term of quadratic sequences • Fibonacci sequences • Geometric progressions						
Lesson Tasks			✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Statistics	C	R	E	A	T	E
NC Learning Intention							
Lesson Learning Intentions	Two-way Tables • Complete two-way tables • Answer simple probability questions Stem and Leaf Diagrams • Draw a stem and leaf • Find averages from a stem and leaf Scatter Graphs • Correlation • Line of best fit and estimating data • Relationship between variables Pie Charts • Finding angles from a frequency table	✓			✓	✓	

	• Drawing pie charts • Interpreting pie charts Averages and the Range • Mean, median, mode, range • Sum of means Frequency Tables • Finding averages from frequency tables • Estimated mean from a grouped frequency table • Finding median and modal class from grouped frequency table						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	Fractions • Simplifying, equivalent and converting fractions • Adding and subtracting fractions • Multiplying and dividing, fractions of an amount Decimals • Adding and subtracting • Multiplying and dividing Percentages • Percentages of an amount (calculator/non-calculator) • Interest/Repeated percentage change • Percentage change	✓			✓	✓	

	Ratio • Simplifying, equivalent • Sharing ratios • Finding the difference between • Ratios to fractions Proportion • Simple direct/inverse • Algebraic direct/inverse • Proportion graphs						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Angles • Simple angle rules • Parallel line angles • Interior/exterior angles Pythagoras • Finding the shorter side • Finding the longer side Trigonometry • SohCahToa Mixed Pythagoras and Trigonometry problem solving	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching.		✓	✓	✓	✓	

	• Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving						
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mp[athswatch.co.uk/vle/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Linear Graphs • Tables of Values • Gradient/y=mx+c • Parallel and Perpendicular Lines Quadratic Graphs • Tables of values • Identifying intercepts/solving graphically Distance-time Graphs	✓			✓	✓	

	• Converting time • Completing distance-time graphs • Speed, distance and time with graphs						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	**Geometry**	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Perimeter and Area • Perimeter • Areas of rectangles, triangles, parallelograms and trapezia • Rectilinear/Compound shapes Volume and Surface Area • Cubes/Cuboids • Triangular Prisms	✓			✓	✓	

	• Cylinders • Spheres, cones and square-based pyramids Units and Accuracy • Converting units • Upper and lower bounds/error intervals • Solving problems with bounds						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mp[athswatch.co.uk/vle/	✓					✓

Topic	**Geometry**	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Transformations • Reflection • Rotation • Translation • Enlargement • Enlargement with negative/fractional scale factors	✓			✓	✓	

	Constructions • Constructing triangles • Perpendicular and angle bisectors • Bearings • Loci						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mp[athswatch.co.uk/vle/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Inequalities • Inequalities notation • Drawing Inequalities on a number line • Solving inequalities Simultaneous Equations	✓			✓	✓	

	• Solving linear simultaneous equations • Solving simultaneous equations with a quadratic • Solving simultaneous equations graphically						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Topic	**Probability**	C	R	E	A	T	E
NC Learning Intention	Record, describe and analyse outcomes of events – simple, combined mutually exclusive and independent – using a range of tables and diagrams.						
Lesson Learning Intentions	Probability Notation • Solving basic probability • Probability sums to 1 Experimental Probability • Relative frequency	✓			✓	✓	

	Tree Diagrams • Replacement • Non-replacement Venn Diagrams • Completing venn diagrams • Finding probabilities using venn diagrams • Set notation						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets\KS3 Chapter Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations\KS3 Powerpoints Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	Unit Tests R:\Subjects\Maths\Assessments\KS3 Unit Tests Half-term Tests R:\Subjects\Maths\Assessments\KS3 Half Term		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Maths Loops/Treasure Hunt R:\Subjects\Maths\End of Term and Year Resources\MATHSLOOPS.pdf Mathswatch https://vle.mathswatch.co.uk/vle/	✓					✓

Year 10 Foundation (Challenging Content)

Topic	**Number**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems						
Lesson Learning Intentions	Place value Negative numbers Rounding numbers Adding and subtracting	✓			✓	✓	

	Multiplying and dividing Decimals and place value Operations on decimals Squares, cubes and roots indices Estimation Factors. multiples and primes HCF and LCM Fractions Operations on fractions Mixed numbers Calculator and number skills Standard form Counting strategies						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	Collecting like terms Simplifying expressions Algebraic indices Substitution Formulae	✓			✓	✓	

	Writing formulae Expanding brackets Factorising Linear equations Inequalities Solving inequalities Sequences Coordinates Gradients of lines Straight-line graphs Real-life graphs Distance—time graphs Rates of change Expanding double brackets Quadratic graphs Using quadratic graphs Factorising quadratics Quadratic equations Cubic and reciprocal graphs Simultaneous equations Rearranging formulae Using algebra Identities and proof						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	

Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Ratio and Proportion**	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	Percentages Fractions, decimals and percentages Percentage change Ratio	✓			✓	✓	

	Metric units Reverse percentages Growth and decay Speed Density Compound measures Proportion Proportion and graphs						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Geometry**	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	Symmetry Quadrilaterals Angles	✓			✓	✓	

	Angles in polygons Time and timetables Reading scales Perimeter and area Area formulae Solving area problems 3D shapes Volumes of cuboids Prisms Units of area and volume Translations Reflections Rotations Enlargements Pythagoras' theorem Line segments Trigonometry Solving trigonometry problems Measuring and drawing angles Measuring lines Plans and elevations Scale drawings and maps Constructions Loci Bearings Circles Area of a circle Sectors of circles Cylinders Volumes of 3D shapes Surface area Similarity and congruence Similar shapes						

	Congruent triangles Vectors						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Probability and Statistics**	C	R	E	A	T	E
NC Learning Intention	Construct and interpret tables, graphs and diagrams based upon different data sets. Find and interpret averages based on this data.						
Lesson Learning Intentions	Two-way tables Pictograms Bar charts	✓			✓	✓	

	Pie charts Scatter graphs Averages and range Averages from tables Line graphs Stem-and-leaf diagrams Sampling Stratified sampling Comparing data Probability Relative frequency Frequency and outcomes Venn diagrams						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Year 10 Higher (Challenging Content)

Topic	**Number**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems						

Lesson Learning Intentions	1.1 Number problems and reasoning 1.2 Place Value and estimating 1.3 HCF and LCM 1.4 calculating with Indices 1.5 Zero, negative and fractional indices 1.6 Powers of 10 and Standard Form 1.7 Surds	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						

Lesson Learning Intentions	2.1 Algebraic Indices 2.2 Expanding and Factorising 2.3 Equations 2.4 Formulae 2.5 Linear sequences 2.6 Non-linear sequences 2.7 More expanding and factorising	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Statistics**	C	R	E	A	T	E

NC Learning Intention	Construct and interpret tables, graphs and diagrams based upon different data sets. Find and interpret averages based on this data.						
Lesson Learning Intentions	3.1 Statistical diagrams 1 (frequency polygons) 3.2 Time Series/Pie charts 3.3 Scatter Graphs 3.4 Line of Best fit 3.5 Averages and Range 3.6 Statistical Diagrams 2	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Ratio and Proportion**	C	R	E	A	T	E

NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	4.1 Fractions 4.2 Ratios 4.3 Ratio and Proportion 4.4 Percentages 4.5 Fractions, Decimals and Percentages	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Geometry**	C	R	E	A	T	E

NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	5.1 Angle Properties of Triangles and Quadrilaterals 5.2/3 Interior/Exterior Angles of a Polygon 5.4/5 Pythagoras' Theorem 1 5.6 Trigonometry 1	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	**Algebra**	C	R	E	A	T	E

NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	6.1 Linear Graphs 6.2 More Linear Graphs 6.3/4 Rates of Change/Real-life Graphs 6.5 Line Segments 6.6 Quadratic Graphs 6.7 Cubic and Reciprocal Graphs 6.8 More Graphs	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	7.1 Perimeter and Area 7.2 Units and Accuracy 7.3 Prisms 7.4 Circles 7.5 Sectors of Circles 7.6 Cylinders and Spheres 7.7 Pyramids and Cones	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	8.1 3D Solids 8.2 Reflection and Rotation 8.3 Enlargement 8.4 Translations and Combinations of transformations 8.5 Bearings and Scale Drawings 8.6 Constructions 1 8.7 Constructions 2 8.8 Loci	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	9.1 Solving Quadratic Equations 1 9.2 Solving Quadratic Equations 2 9.3 Completing the Square 9.4 Solving Simple Simultaneous Equations 9.5 More Simultaneous Equations 9.6 Solving linear and Quadratic Simultaneous Equations 9.7 Solving linear inequalities	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Probability	C	R	E	A	T	E
NC Learning Intention	Record, describe and analyse outcomes of events – simple, combined mutually exclusive and independent – using a range of tables and diagrams.						
Lesson Learning Intentions	10.1 Combined Events 10.2 Mutually Exclusive Events 10.3 Experimental Probability 10.4 Independent Events and Tree Diagrams 10.5 Conditional Probability 10.6 Venn Diagrams and Set Notation	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	11.1 Growth and Decay 11.2 Compound Measures 11.3 More Compound Measures 11.4 Ratio and Proportion	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	12.1 Congruence 12.2 Geometric Proof and Congruence 12.3 Similarity 12.4 More Similarity 12.5 Similarity in 3D Models	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	13.1 Accuracy 13.2 Graph of the Sine Function 13.3 Graph of the Cosine Function 13.4 The Tangent Function 13.5 Calculating Areas and the Sine Rule 13.6 The Cosine Rule and 2D Trigonometry 13.7 Solving Problems in 3D	✓			✓	✓	

	13.8 Transforming Trigonometric Graphs 1 13.9 Transforming Trigonometric Graphs 2						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Statistics	C	R	E	A	T	E
NC Learning Intention	Construct and interpret tables, graphs and diagrams based upon different data sets. Find and interpret averages based on this data.						
Lesson Learning Intentions	14.1 Sampling 14.2 Cumulative Frequency 14.3 Box Plots 14.4 Drawing Histograms 14.5 Interpreting Histograms 14.6 Comparing and Describing Populations	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	15.1 Solving Simultaneous Equations Graphically 15.2 Representing Inequalities Graphically 15.3 Graphs of Quadratic Functions 15.4 Solving Quadratic Equations Graphically 15.5 Graphs of Cubic Functions	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Year 11 Foundation

Topic	Number	C	R	E	A	T	E
NC Learning Intention	Develop understanding of number properties and apply number methods to solve problems. Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	Place value Negative numbers Rounding numbers Adding and subtracting Multiplying and dividing Decimals and place value Operations on decimals Squares, cubes and roots indices Estimation Factors. multiples and primes HCF and LCM Fractions Operations on fractions Mixed numbers Calculator and number skills Standard form Counting strategies	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		

Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae. Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	Collecting like terms						
	Simplifying expressions						
	Algebraic indices						
	Substitution						
	Formulae						
	Writing formulae						
	Expanding brackets						
	Factorising						
	Linear equations						
	Inequalities						
	Solving inequalities						
	Sequences						
	Coordinates						
	Gradients of lines	✓			✓	✓	
	Straight-line graphs						
	Real-life graphs						
	Distance—time graphs						
	Rates of change						
	Expanding double brackets						
	Quadratic graphs						
	Using quadratic graphs						
	Factorising quadratics						
	Quadratic equations						
	Cubic and reciprocal graphs						
	Simultaneous equations						
	Rearranging formulae						
	Using algebra						

	Identities and proof						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio. Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	Percentages Fractions, decimals and percentages Percentage change Ratio Metric units Reverse percentages Growth and decay Speed Density Compound measures Proportion Proportion and graphs	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions. Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	Symmetry Quadrilaterals Angles Angles in polygons Time and timetables Reading scales Perimeter and area Area formulae Solving area problems 3D shapes Volumes of cuboids Prisms Units of area and volume Translations Reflections Rotations Enlargements Pythagoras' theorem Line segments Trigonometry Solving trigonometry problems Measuring and drawing angles Measuring lines Plans and elevations	✓			✓	✓	

	Scale drawings and maps Constructions Loci Bearings Circles Area of a circle Sectors of circles Cylinders Volumes of 3D shapes Surface area Similarity and congruence Similar shapes Congruent triangles Vectors						
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Probability and Statistics	C	R	E	A	T	E
NC Learning Intention	Construct and interpret tables, graphs and diagrams based upon different data sets. Find and interpret averages based on this data. Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	Two-way tables Pictograms Bar charts Pie charts Scatter graphs Averages and range Averages from tables Line graphs Stem-and-leaf diagrams Sampling Stratified sampling Comparing data Probability Relative frequency Frequency and outcomes Venn diagrams	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	

DRAFT	R:\Subjects\Maths\Assessments\GCSE Foundation		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Year 11 Higher

Topic	**Geometry**	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	16.1 Radii and Chords 16.2 Tangents 16.3 Angles in Circles 1 16.4 Angles in Circles 2 16.5 Applying Circle Theorems	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Algebra	C	R	E	A	T	E
NC Learning Intention	Develop understanding of algebraic constructs and learn skills to manipulate algebraic expressions, equations and formulae.						
Lesson Learning Intentions	17.1 Rearranging Formulae 17.2 Algebraic Fractions 17.3 Simplifying Algebraic Fractions 17.4 More Algebraic Fractions 17.5 Surds 17.6 Solving Algebraic Fraction Equations 17.7 Functions 17.8 Proof	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Geometry	C	R	E	A	T	E
NC Learning Intention	Understand different properties associated with shapes and develop skills associated with transformations and constructions						
Lesson Learning Intentions	18.1 Vectors and Vector Notation 18.2 Vector Arithmetic 18.3 More Vector Arithmetic 18.4 Parallel Vectors and Collinear Points 18.5 Solving Geometric Problems	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Ratio and Proportion	C	R	E	A	T	E
NC Learning Intention	Learn the different methods of expressing and computing proportional relationships including fractions, decimals, percentages and ratio.						
Lesson Learning Intentions	19.1 Direct Proportion 19.2 More Direct Proportion 19.3 Inverse Proportion 19.4 Exponential Functions 19.5 Non-Linear Graphs 19.6 Translating Graphs of Functions 19.7 Reflecting and Stretching Graphs of Functions	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/	✓					✓

Topic	Revision	C	R	E	A	T	E
NC Learning Intention	Revise, refine and extend learning of year 10. Exam questions and preparation.						
Lesson Learning Intentions	R:\Subjects\Maths\Contents\Chapter Content Sheets\GCSE Higher\0 All chapter contents - higher.docx	✓			✓	✓	
Lesson Tasks	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. • Observe and discuss examples • Use mini whiteboards to attempt questions • Complete exercises to consolidate learning • Attempt exam questions with problem-solving		✓	✓	✓	✓	
Resources	Contents R:\Subjects\Maths\Contents\Chapter Content Sheets Powerpoints R:\Subjects\Maths\Powerpoint presentations Exercises/Videos https://corbettmaths.com/contents/ Revision Resources R:\Subjects\Maths\GCSE Revision and Papers	✓	✓	✓	✓	✓	
DRAFT	R:\Subjects\Maths\Assessments\GCSE Higher		✓		✓	✓	
Literacy	R:\Subjects\Maths\Displays\Word Wall.docx		✓	✓	✓		
Numeracy		✓	✓	✓	✓	✓	
Challenge	Mathswatch https://vle.mathswatch.co.uk/vle/ Exam questions https://www.examq.co.uk/ Revision Papers \\Eastwood7\restricted\Subjects\Maths\GCSE Revision and Papers\Papers	✓					✓