| Subject: Maths |  |  |  |
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| Exam Board: Edexcel Maths |  |  |  |
| Year Group | Unit 1 | Unit 2 | Unit 3 |
| 7 | - Understand place value and their use in written and mental methods <br> - Apply effective mental and written methods of multiplication and division <br> - Perform calculations with negative numbers and understand the uses of negative numbers in context <br> - Recognise and use relationships between operations, such as factors, multiples, primes, and inverses <br> - Identify and find prime numbers, prime decomposition, LCM and HCF <br> - Calculate percentages of amounts | - Understand equivalent fractions and perform calculations involving fractions <br> - Find equivalent fractions, decimals and percentages, and use them to compare proportional values <br> - Use algebraic notation correctly to set up and derive equations and formulae. Recognise equations, identities and formulae. <br> - Use and interpret the collection of like terms, multiplication rules and expanding brackets to simplify algebraic expressions <br> - Use inverse operations to rearrange or solve equations <br> - Recognise terms, expressions and sequences, and substitute values including decimals, fractions and negatives | - Calculate the perimeter of a range of shapes <br> - Calculate the area of a range of shapes <br> - Accurately draw, measure and name the 3 types of angles <br> - Use geometric reasoning to find missing angles in 2D shapes <br> - Interpret statistical data through calculating the mean, median, mode and range <br> - Understand how to collect and organise data <br> - Construct and interpret a range of graphs <br> - Find and contextualise statistical measures using graphs |



|  | - Ratio \& Proportion |  |  |
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| 8 | - Understand and execute the order of operations <br> - Negative Numbers <br> - Apply rounding to estimate the answer to a calculations <br> - Identify and find powers and roots <br> - Identify and find prime numbers, prime decomposition, LCM and HCF <br> - Understand equivalent fractions and perform calculations involving fractions <br> - Recognise and use relationships between units of measurement and compound measures | - Calculate the area of a range of shapes <br> - Understand the use of pi and apply it to calculate the area and circumference of circles <br> - Use and determine the nth term of a linear sequence <br> - Simplify algebraic expressions by collecting like terms, expanding and factorising <br> - Use algebraic manipulation to solve multi-step equations including unknowns on both sides and change the subject of a formulae <br> - Apply algebraic skills to plot linear and quadratic graphs <br> - Understand and solve linear inequalities | - Find percentages of amounts and percentage increase/decrease using multipliers <br> - Understand and use the relationship between ratio and proportion and proportional reasoning <br> - Find unknown angles in parallel lines <br> - "Use protractor and compasses to accurately construct triangles and quadrilaterals <br> - Use a straight edge and compass to form constructions" <br> - Understand how to identify congruent and similar shapes <br> - "Represent and use 3D shapes in 2D form to calculate surface area <br> - Calculate the volume of prisms" <br> - Interpret statistical data through calculating the mean, median, mode and range <br> - Find and contextualise statistical measures |



|  |  |  | - Use probability rules to describe chance <br> - Use probability rules to describe chance |
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| 9 | - Apply rounding to estimate the answer to a calculation <br> - Identify and find prime numbers, prime decomposition, LCM and HCF <br> - Using Index Laws ands Standard Form <br> - Understand equivalent fractions and perform calculations involving fractions <br> - Convert between fractions, decimals and percentages <br> - Calculating percentage increase, decrease, reverse, simple interest and compound interest | - Ratio and proportion <br> - Probability <br> - Simplify algebraic expressions by collecting like terms, expanding and factorising <br> - Use algebraic manipulation to solve multi-step equations including unknowns on both sides and change the subject of a formulae <br> - Understand and solve linear inequalities <br> - Substitution, further algebraic manipulation \& solving simultaneous equations <br> - Use and determine the nth term of a linear sequence <br> - Apply algebraic skills to plot linear graphs <br> - Apply algebraic skills to plot quadratic, cubic and reciprocal graphs and circles | - Representing data <br> - Calculate area and perimeter of shapes including triangles, quadrilaterals and circles <br> - Represent and use 3D shapes in 2D form to calculate surface area and volume of prisms <br> - Identify and calculate angles in polygons \& unknown angles in parallel lines <br> - Using Pythagoras Theorem <br> - Understanding and using trigonometric ratios <br> - Transformations |



| 10 <br> (Foundation) | - Integers and place value <br> - Decimals <br> - Indices, powers and roots <br> - Indices and Standard form <br> - Algebra the basics <br> - Expressions and substitution into formulae <br> - FDP <br> - Percentages | - Tables, Charts and graphs <br> - Pie Charts <br> - Scatter graphs <br> - Equations and Inequalities <br> - Sequences <br> - Properties of shapes, parallel lines and angle facts. <br> - Interior and exterior angles of polygons. | - Real Life Graphs <br> - Straight Line Graphs <br> - Statistics, sampling and the averages <br> - Ratio <br> - Proportion <br> - Pythagoras and Trigonometry <br> - Plans and Elevations <br> - Constructions, loci and bearings |
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| Y10 <br> (Crossover) | - Calculating, checking and rounding <br> - Indices, roots, reciprocals and hierarchy of operations <br> - Factors, multiples, primes, standard form and surds <br> - Algebra 'the basics' | - Sequences <br> - Fractions and Percentages <br> - Ratio and proportion <br> - Polygons angles and parallel lines <br> - Pythagoras and trigonometry <br> - Averages and Range <br> - Representing and interpreting data and scatter graphs | - Graphs, the basics and real life graphs <br> - Linear graphs and coordinate geometry <br> - Quadratic, cubic and other graphs <br> - Perimeter, area and circles <br> - 3D forms, volumes <br> - Accuracy and bounds <br> - Solving Quadratic and <br> Simultaneous Equations <br> - Inequalities <br> - Probability <br> - Transformations and Constructions |


|  |  |  | - Similarity and Congruence |
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| 10 (Higher) | - Calculating, checking and rounding <br> - Indices, roots, reciprocals and hierarchy of operations <br> - Factors, multiples, primes, standard form and surds <br> - Algebra 'the basics' | - Sequences <br> - Fractions and Percentages <br> - Ratio and proportion <br> - Polygons angles and parallel lines <br> - Pythagoras and trigonometry <br> - Averages and Range <br> - Representing and interpreting data and scatter graphs <br> - Graphs, the basics and real life graphs <br> - Linear graphs and coordinate geometry <br> - Quadratic, cubic and other graphs | - Perimeter, area and circles <br> - 3D forms, volumes, cylinders, cones and spheres. <br> - Accuracy and bounds <br> - Solving Quadratic and Simultaneous Equations <br> - Inequalities <br> - Probability <br> - Multiplicative Reasoning <br> - Transformations and Constructions <br> - Similarity and Congruence |
| $11$ <br> (Foundation) | - Multiplicative Reasoning <br> - Quadratic Equations, expanding and factorising. <br> - Quadratic equations: graphs <br> - Circles, cylinders,cones and spheres <br> - Fractions and reciprocals <br> - Indices and standard form <br> - Transformations <br> - Similarity and Congruence in | - Review and Revision in advance of exams | - Review and Revision in advance of exams |


|  | 2D <br> - Vectors <br> - Rearranging equations, graphs of cubic and reciprocal functions and simultaneous equations. |  |  |
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| Y11 <br> (Crossover) | - Multiplicative Reasoning <br> - Equations and Graphs <br> - Changing the subject of more complex formulae <br> - Algebraic fractions <br> - Rationalising surds <br> - Further Statistics; cumulative frequency <br> - Proportion and Graphs | - Review and Revision in advance of exams | - Review and Revision in advance of exams |
| 11 (Higher) | - Changing the subject of more complex formulae, solving equations from algebraic fractions, rationalising surds, proof <br> - Advanced Trigonometry <br> - Further Statistics <br> - Circle Theorems | - Review and Revision in advance of exams | - Review and Revision in advance of exams |



|  | Vectors and Geometric Proof <br> • Proportion and Graphs |  |  |
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