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| **Curriculum Plan for Parents – Year 11 Foundation GCSE (2016/2017 only) (Edexcel exam board)** |

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| **Subject** | Mathematics | **Contact Person** | Mrs Shaw / Mrs Landy |

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| **Half term and topic** | **Your child will learn....** | **Key Homework** | **Assessment** |
| **Autumn 1**  Graphs  Transformations  Ratio & Proportion  Right-Angled Triangles | Draw and interpret distance-time graphs; draw, describe and combine transformations; divide quantities into parts using ratio; use the unitary method to solve proportion problems; understand currency conversions; understand value for money and work out best buys; direct and inverse proportion; use Pythagoras’ Theorem to work out the lengths of sides in right-angled triangles; find the length of a line segment on a graph; apply Pythagoras to non-right-angled triangles; | Homework will be set once each week to consolidate learning and provide challenge to promote independent thought. (Homework may be revision in the run-up to a test). | October – formal assessment using a non-calculator GCSE past paper |
| **Autumn 2**  Right-Angled Triangles  Probability  Multiplicative-Reasoning  Constructions | Right-Angled Triangles (continued); use and apply trigonometry to solve problems; know the exact values of sine, cosine and tangent; understand mutually exclusive and exhaustive outcomes; sample space diagrams; experimental probability; relative frequency; venn diagrams and set notation; independent events; tree diagrams; percentage change; percentage profit and loss; solve growth and decay problems; speed, distance, time; mass, volume, density; use formulae to calculate acceleration; draw 3D shapes on isometric paper; plans and elevations; scale and maps; identify congruent triangles; construct line and angle bisectors; | Homework will be set once each week to consolidate learning and provide challenge to promote independent thought. (Homework may be revision in the run-up to a test). | December – mock examinations (non-calculator and calculator assessments using GCSE past papers) |
| **Spring 1**  Loci  Bearings  Quadratics  Area and Volume | Solve loci problems; find and use three-figure bearings; use angles on parallel lines to work out bearings; expand double brackets; plot graphs of quadratic functions; solve quadratic equations using a graph; area and circumference of a circle (calculator methods and in terms of π); sectors of circles; volume and surface area of prisms, pyramids, cones and spheres; | Homework will be set once each week to consolidate learning and provide challenge to promote independent thought. (Homework may be revision in the run-up to a test). |  |
| **Spring 2**  Fractions  Indices  Standard Form  Congruence  Similarity  Vectors  Algebra | Calculate with fractions and mixed numbers; know and use the Laws of Indices; write numbers in standard form; calculate using standard form; use congruence and similarity scale factors to work out unknown lengths of shapes; add and subtract vectors; write multiples of a vector; recognise and draw graphs of cubic and reciprocal functions; | Homework will be set once each week to consolidate learning and provide challenge to promote independent thought. (Homework may be revision in the run-up to a test). | March – formal assessment using calculator GCSE past papers |
| **Summer 1**  Algebra  Revision of all Topics | Algebra (continued); solve simultaneous equations graphically; change the subject of a formula; prove results using algebra; | Homework will be set once each week to consolidate learning and provide challenge to promote independent thought. (Homework may be revision in the run-up to a test). |  |
| **Summer 2** |  |  | GCSE examinations |

Mathematics at Holly Lodge supports the GCSE Maths qualification provided by the Edexcel examination board. Further details can be found at <https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html>