Mathematics Higher

|  | Term one | Term Two | Term Three | Term Four | Term Five | Term Six |
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| Week One | Place value \& Estimating HCF and LCM Indices | Algebraic indices Expanding and factorising Equations and formulae Sequences | Angle properties of triangles and quadrilaterals Interior and exterior of polygon | Circle theorems | Numbers - aiming for grade 9 | Calculating probabilities Listing outcomes Probability from experiment |
| Week Two | Surds | Graphs (1) <br> Linear graphs <br> Graphing rate of change Line segments | Pythagoras Theorem Trigonometry | Vectors and notation <br> Vector arithmetic <br> Parallel vectors and collinear <br> points <br> Solving geometric problems | Algebra - aiming for grade 9 | Tree diagrams Conditional probability |
| Week Three | Fractions ratio and decimals | Graphs (2) <br> Quadratic graphs <br> Cubic and reciprocal graphs <br> More graphs | Perimeter and area <br> Prisms <br> Circles, sectors of circles Cylinders, spheres, pyramids and cones | Interpreting and representing data <br> Statistical diagrams <br> Frequency polygons | ```Geometry - aiming for grade 9``` | Sets |
| Week Four | Growth and decay Compound measures Ratio and proportion | Solving linear inequalities Solving quadratic equations Completing the square Simple simultaneous equations | Reflection, rotation, enlargement <br>  <br> Transformations <br> Scale drawings and bearings Constructions and loci | Further Statistics <br> Cumulative frequency <br> Box plots <br> Histograms \& Distributions | Statistics - aiming for grade 9 | Probability for combined events <br> -AND rule <br> - OR rule <br> - Using the AND/OR rule |
| Week Five | Direct and inverse proportion <br> Exponential functions <br> Non-linear graphs <br> Translating and reflecting graphs | More simultaneous equations Solving linear and quadratic simultaneous equations | Congruence Geometric proof Similarity | Algebraic proofs Surds revisited | Revision |  |
| Week Six | Surds (2) | Solving simultaneous equations graphically Quadratic and cubic equations Using iteration to solve equations | Graph of sine, cosine, tangent function <br> Calculating areas and the sine rule <br> Cosine rule <br> Transforming trigonometric graphs | Functions |  |  |
| Week Seven | Probability | Rearranging formulae Algebraic fractions |  |  |  |  |

