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| **TOPIC** | **CHAPTERS IN BOOK** |
| Algebra 1   * Polynomial expressions * Polynomial functions * Factorising algebraic expressions * Simplifying algebraic fractions * Algebraic identities * Manipulating formulae * Solving equations | Text & Tests 6, Chapter 1 (section 1.7 not included) |
| Algebra 2   * Quadratic equations * Nature of quadratic roots * Solving quadratic and linear equations * Quadratic and linear equations in context * Forming quadratic equations from their roots * Max and min of quadratic graphs * Surds * Algebraic surd equations * Factor Theorem * Graphs of cubic polynomials | Text & Tests 6, Chapter 2 |
| Coordinate geometry – the line   * Revision of formulae * Area of a triangle * Equation of a line * Dividing a line into a given ratio * Concurrencies of a triangle * Perpendicular distance from point to line * Angle between two lines * Using linear relationships to solve problems | Text & Tests 4, Chapter 1 |
| Coordinate geometry – the circle   * Equation of circle with centre (0,0) * Equation of circle with centre (h, k) and radius r * Finding equation of circle * Tangents to a circle * Lines and circles – common chord * Touching circles – chords and circles * Circles touching the x or y axis | Text & Tests 4, Chapter 4 |
| Complex numbers   * Complex numbers * Division of complex numbers * Argand diagram, modulus * Transformations of complex numbers * Conjugate roots theorem * Polar form of complex numbers   Complex numbers (continued)   * Product and quotients of complex numbers in polar form * DeMoivre’s Theorem * Applications of DeMoivre’s Theorem | Text & Tests 6, Chapter 3 (Section 3.1 not included) |
| Geometry 1   * Angles, triangles and parallelograms * Theorems involving triangles and parallelograms * Ratio theorems * Circle theorems * Formal proofs of theorems | Text & Tests 4, Chapter 3 |
| Geometry 2   * Enlargements * Constructions | Text & Tests 4, Chapter 6 |
| Probability   * Permutations and combinations * Elementary probability, experimental probability * Addition rule, multiplication law * Conditional probability * Tree diagrams * Expected value * Bernoulli trials * Independent events * Probability with permutations and combinations * Normal distribution | Text & Tests 5, Chapter 1, Chapter 3 |
| Trigonometry   * Radian measure * Revision of Junior Cert material * Trig equations * Sin rule, cosine rule * 3D Problems * Graphing, practical applications | Text & Tests 4, Chapter 2  Note: Topics in this area will not be examined in summer test if they are not covered during the final term. |