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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 2Note: Topics in this area will not be examined in summer test if they are not covered during the final term. |