

Autumn 1: September – October

What are we learning:

Algebra and Functions

1a. Algebraic expressions: basic algebraic manipulation, indices and surds

1b. Quadratic functions: factorising, solving, graphs and discriminants

1c. Equations: quadratic/linear simultaneous

1d. Inequalities: linear and quadratic (including graphical solutions)

1e. Graphs: cubic, quartic and reciprocal

Assessments:

- Algebra 1 assessment on 1a
- Algebra 2 assessment on 1a, 1b, 1c and 1d

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in – Thursday afterschool in D20

Autumn 2: October – December

What are we learning:

1f. Transformations: transforming graphs

Further algebra

3a. Algebraic division, factor theorem and proof

3b. The binomial expansion

Trigonometry

4a. Trigonometric ratios and graphs

4b. Trigonometric identities and equations

Assessments:

- Further Algebra assessment on topics 3a and 3b

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in – Thursday afterschool in D20

Spring 1: January – February

What are we learning:

Statistical Sampling

S1a. Introduction to sampling terminology

S1b. Understand and use sampling techniques

Data Presentation and Interpretation

S2a. Calculation and interpretation of measures of location and variation. Understand and use Coding

Assessments:

- Trigonometry assessment on 4a and 4b.
- Intro to Statistics assessment on S1a, S1b and S2a.

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in – Thursday afterschool in D20

Spring 2: February – April

What are we learning:

Probability

S3. Mutually exclusive events. Independent events.

S2a. Using set notation for probability. Conditional probability.

S2b. Questioning assumptions in probability.

Statistical Distributions

S4. Use discrete distributions for modelling. Use discrete uniform distribution. Calculate probabilities using binomial distribution (calculator use expected)

Assessments:

- No assessment

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in –
Thursday afterschool
in D20

Summer 1 : April – May

What are we learning:

Statistical Hypothesis Testing

S5a. Language of hypothesis testing. Significance levels.

S5b. Carry out Hypothesis testing on the binomial theorem.

Algebraic and Partial Fractions

2a. Simplifying algebraic fractions.

2b. Partial fractions.

The Binomial Theorem

5a. Expanding $(a + bx)^n$ for rational n . Knowledge of the range of validity.

5b. Expansion of functions by first using partial fractions.

Assessments:

- Statistics assessment on all statistics topics.

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in – Thursday afterschool in D20

Summer 2: June – July

What are we learning:
Preparing for EOY assessments.

Functions and Modelling

3a. Modulus function

3b. Composite and inverse functions

3c. Transformations

3d. Modelling with functions

Assessments:

- End of year Assessment covering all Year 1 A-Level Maths elements.

Support:

- Integral Maths
- ActiveLearn
- Showbie resources
- Year 12 drop in – Thursday afterschool in D20