





The curriculum for this stage of students' education has been designed to build upon their knowledge of percentages to enable them to compare quantities and combine it with their knowledge of proportion. Students will also have the opportunity to study different methods of sampling and how to interpret grouped data. Students will also have the opportunity to look at angles in polygons and angles associated with parallel lines. Building on this, students will study Pythagoras' theorem and trigonometry and will have the opportunity to combine this with 3D shapes. Each half term, students will focus on one particular area of Mathematics, allowing for a greater depth of that topic and allowing regular repetition of skills, as well as allowing students to make links between topics. Throughout the year, students will be exposed to regular exam questions and exam papers to prepare them fully for their mock exam at the end of the year. Underpinning the curriculum areas, will be the opportunity to explore how the skills they are developing can be used in real life situations and applied to problem solving questions.

HALF TERM 1: NUMBER

STUDENTS MUST KNOW:

The importance of being able to calculate including

- Four operations with negatives.
- HCF and LCM with prime numbers.
- Using rounding to estimate solutions.

How to calculate with fractions including

- The four operations with fractions.
- Calculating fractions of quantities.

HOW THIS WILL BE ASSESSED:

Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.

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HALF TERM 3: GEOMETRY

STUDENTS MUST KNOW:

The importance of units of measure including

- Metric and imperial conversions.
- Properties of 3D shapes.

How to solve missing angle problems including

- Angles in polygons.
- Corresponding and alternate angles.
- Bearings.

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HALF TERM 4: ALGEBRA

STUDENTS MUST KNOW:

How to carry out basic algebraic manipulation including

- Expanding and factorising, including quadratics.
- How to change the subject of a formula.
- Substitution into expressions and formulas.

Various techniques for solving linear equations including

- Equations with unknowns on both sides.
- Equations with fractional answers.

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HALF TERM 6: GEOMETRY

STUDENTS MUST KNOW:

The importance of right-angled triangles including

- Pythagoras' theorem.
- Trigonometric ratios.
- Angles of elevation and depression.
- Standard trigonometric ratios.

HOW THIS WILL BE ASSESSED:

Assessments will be completed at the end of each topic. All students will sit a mock GCSE exam in the summer term.

Embedding this knowledge can be supported at home by using Dr Frost Maths website to consolidate learning that has taken place in class, attempting questions which can be found online at www.corbettmaths.com, practising exam papers from the AQA website and www.mathsgenie.co.uk and using revision guides and the CGP workbook provided.