

YEAR 10 CORE: FOUNDATION MATHEMATICS

Foundation Mathematics is intended to provide for students who may have found mathematics in year 9 particularly challenging. The course will revisit and seek to build fluency in core numeracy skills, including arithmetic, fractions, decimal and percentage. These skills will be applied to a range of real-life applications and everyday problems involving money, travel, time, measurement, statistics and graphs.

Students will require a scientific calculator as prescribed on the booklist.

SEMESTER 1

Students will begin with a revision of number skills with a particular focus on decimals and percentage. Students will solve problems involving the area of triangles and quadrilaterals and the surface area and volume of prisms, cylinders, and related solids. Students will explore practical applications of measurement such as volume of paint required to cover a given area or length of fencing to enclose a pool. Physical measurement of lengths, volumes and angles will be studied, with a focus on estimation and error. The application of Pythagoras' theorem to solve problems related to right-angled triangles will be explored. Students will also learn to read and create house plans.

AREA OF STUDY

- Number
- Measurement
- Geometry and Space

SEMESTER 2

Univariate and bivariate data will be discussed as students compare data sets by referring to summary statistics and describe the distribution in terms of shape, centre and spread. Student will build skills at analyzing and describing graphs, tables, charts and other visual representations of data. Students will also learn about sources of bias in how surveys are designed and conducted. Student will learn about financial math with a focus consumer arithmetic, including calculating wages, bills, budgeting and sales promotions. Students will also learn about income tax, credit cards, loans and investments. Students will investigate how probability affects decision making in areas such as workplace safety and gambling.

AREA OF STUDY

- Statistics
- Financial Arithmetic
- Probability