

UNIT 1 & 2 FOUNDATION MATHEMATICS

Foundation Mathematics provides for the continuing mathematical development of students entering VCE. There is a strong emphasis on the use of mathematics in practical contexts encountered in everyday life in the community, at work and at study.

UNIT 1

In this unit students will apply the use of integers, decimals, fractions, ratios, proportions, percentages and rates to solve practical problems. They will use and interpret formulas and algebraic expressions to describe relationships between variables and to model patterns that exist in everyday contexts. Students will apply and use metric units and measures, including derived measures. They will apply procedures for the solution of personal, societal and workplace problems involving metric measurement with consideration of error, required accuracy and tolerances. They will interpret and use time and duration including time and date specifications, conventions, schedules, timetables and time zones.

AREA OF STUDY

- Data analysis, probability and statistics
- Algebra, number and structure
- Discrete mathematics

OUTCOMES

Outcome 1: Define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.

Outcome 2: Apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.

Outcome 3: Apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.

UNIT 2

In this unit students will investigate how to interpret and use plans, elevations, maps, models and diagrams. They will investigate geometric conventions and properties of shapes and objects, enlargement and reduction of diagrams and models. The interpretation and use of location, distance, direction and scale on diagrams, maps and plans will be discussed in regards to their use in practical situations. They will cover the processes involved in the collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts. Students will interpret diagrams, charts, tables and graphs and use measures of averages and spread to summarise, interpret and compare data sets.

AREA OF STUDY

- Data analysis, probability and statistics
- Algebra, number and structure
- Discrete mathematics
- Space and Measurement

OUTCOMES

Outcome 1: Define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.

Outcome 2: Apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.

Outcome 3: Apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.