

Essential Mathematics

Applied senior subject

Applied

Essential Mathematics' major domains are Number, Data, Location and time, Measurement and Finance.

Essential Mathematics benefits students because they develop skills that go beyond the traditional ideas of numeracy.

Students develop their conceptual understanding when they undertake tasks that require them to connect mathematical concepts, operations and relations. They learn to recognise definitions, rules and facts from everyday mathematics and data, and to calculate using appropriate mathematical processes.

Students interpret and use mathematics to make informed predictions and decisions about personal and financial priorities. This is achieved through an emphasis on estimation, problem-solving and reasoning, which develops students into thinking citizens.

Pathways

A course of study in Essential Mathematics can establish a basis for further education and employment in the fields of trade, industry, business and community services. Students learn within a practical context

related to general employment and successful participation in society, drawing on the mathematics used by various professional and industry groups.

Objectives

By the conclusion of the course of study, students will:

- select, recall and use facts, rules, definitions and procedures drawn from Number, Data, Location and time, Measurement and Finance
- comprehend mathematical concepts and techniques drawn from Number, Data, Location and time, Measurement and Finance
- communicate using mathematical, statistical and everyday language and conventions
- evaluate the reasonableness of solutions
- justify procedures and decisions by explaining mathematical reasoning
- solve problems by applying mathematical concepts and techniques drawn from Number, Data, Location and time, Measurement and Finance.

Structure

Unit 1	Unit 2	Unit 3	Unit 4
Number, data and graphs <ul style="list-style-type: none">• Fundamental topic: Calculations• Number• Representing data• Graphs	Money, travel and data <ul style="list-style-type: none">• Fundamental topic: Calculations• Managing money• Time and motion• Data collection	Measurement, scales and data <ul style="list-style-type: none">• Fundamental topic: Calculations• Measurement• Scales, plans and models• Summarising and comparing data	Graphs, chance and loans <ul style="list-style-type: none">• Fundamental topic: Calculations• Bivariate graphs• Probability and relative frequencies• Loans and compound interest

Assessment

Schools devise assessments in Units 1 and 2 to suit their local context.

In Units 3 and 4 students complete four summative assessments. Schools develop three summative internal assessments and the common internal assessment (CIA) is developed by the QCAA.

Summative assessments

Unit 3	Unit 4
Summative internal assessment 1 (IA1): <ul style="list-style-type: none">• Problem-solving and modelling task	Summative internal assessment 3 (IA3): <ul style="list-style-type: none">• Problem-solving and modelling task
Summative internal assessment 2 (IA2): <ul style="list-style-type: none">• Common internal assessment (CIA)	Summative internal assessment (IA4): <ul style="list-style-type: none">• Examination

Additional Requirements

Study Requirements	Special Requirements
<p>This is an Applied subject and as such requires a reasonable commitment of time and energy to complete the course successfully.</p> <p>Students will be required to complete revision and homework each night in addition to assignment requirements.</p> <p>Students are encouraged to develop and maintain a study plan to assist in revising concepts and skills learnt during face to face lessons.</p>	<p>Keppock SHS is an iPad school. School owned devices are available for use within our student resource scheme.</p> <p>Students will be required to bring an iPad (9.7/10.2 inch, running iOS 14 or better, with 32 GB storage) to school each day.</p> <p>The school has a replacement scheme for iPads that need to be serviced or repaired. (Please note, no other BYO device is supported by the school.)</p> <p>Calculator – Depending on the Mathematics chosen.</p>