MELVILLE HIGH SCHOOL

MATHEMATICS FACULTY

MATHEMATICS

(Numeracy CEC)

The Mathematics Stage 6 syllabuses are designed to offer opportunities for students to think mathematically through questioning, communicating, reasoning and reflecting. They promote development of 21st-century knowledge, skills, understanding, values and attitudes and provide challenge. Students generalise, find connections, think critically and creatively, using appropriate technology to support mathematical activity.

Careers in Mathematics

Occupations where a study of Mathematics would be useful are endless, but could include: -

Accountant
Accounts clerk
Aquaculture technician
Architectural technician
Bank officer
Building contractor
Cartographer
Cartographic technician
Financial dealer's assistant
Importer and exporter
Insurance agent
Insurance broker
Insurance officer
Inventory and supply
Laboratory worker
Logistics clerk
Marine surveyor
Metallurgical technician
Pilot
Programmer
Retail buyer
Ship's master
Ship's officer
Stock and station agent
Surveying technician
Surveyor
Valuer
Accounts clerk
Agricultural technical
Aircraft maintenance
Bank officer
Building contractor
Financial dealer's assistant
Importer and exporter
Insurance agent
Insurance broker
Insurance officer
Laboratory worker
Logistics clerk
Newsagent
Pilot
Retail buyer
Secretary
Stock and station agent
Survey assistant
Transport clerk

www.melville-h.schools.nsw.edu.au

MELVILLE HIGH SCHOOL
44-50 NICHOLSON STREET, KEMPSEY, NSW 2440
PH (02) 6562 7511

Why study Mathematics

(Numeracy CEC)?

The Numeracy CEC is focused on enabling students to use mathematics effectively, efficiently and critically to make informed decisions in their daily lives. They provide students with the opportunities to develop an understanding of, and competence in, further aspects of mathematics through a large variety of real-world applications for a range of concurrent HSC subjects.

Numeracy CEC is designed to help students improve their numeracy by building their confidence and success in making mathematics meaningful. Numeracy is more than being able to operate with numbers. It requires mathematical knowledge and understanding, mathematical problem-solving skills and literacy skills, as well as positive attitudes. When students become numerate they are able to manage a situation or solve a problem in real contexts, such as everyday life, work or further learning. This course offers students the opportunity to prepare for post-school options of employment or further training.

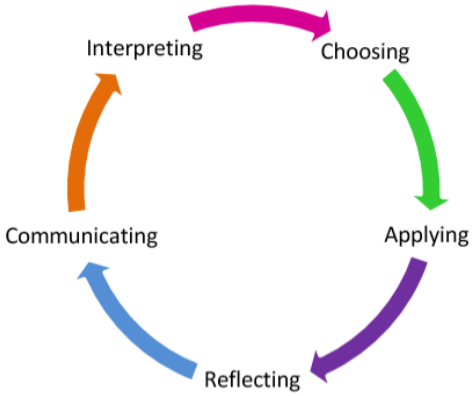
Course Topics

Year 11

- *Whole Numbers*
- *Distance, Area and Volume*
- *Time*
- *Data, Graphs and Tables*
- *Fractions and Decimals*
- *Metric Relationships*
- *Length, Mass and Capacity*
- *Probability of everyday events*

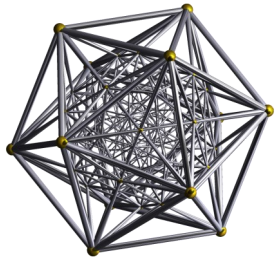
Year 12

- *Percentages*
- *Finance*
- *Location, Time and Temperature*
- *Space and Design*
- *Rates and Ratios*
- *Statistics and Probability*
- *Exploring Numeracy*



Aim

- *The study of Numeracy in Stage 6 enables students to build upon existing numeracy skills and to develop and improve their capability to:*
    - *Interpret and use numerical information*
    - *Solve problems using visual, spatial, financial and statistical literacy skills*
    - *Think mathematically in practical situations*
    - *Represent and communicate information*
    - *Use the context to determine the reasonableness of solutions.*

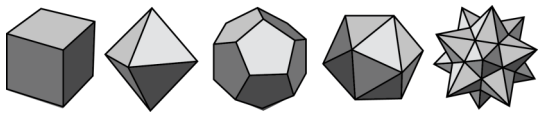


Objectives

- *Students develop numerical reasoning and mathematical thinking skills needed in everyday contexts to solve problems, evaluate results and communicate solutions using appropriate language.*
- *Students develop the capacity to select and apply techniques effectively to meet numeracy demands of life in personal and community, workplace and employment and education and training contexts.*
- *Students develop the capacity to use numerical reasoning and mathematical skills and techniques.*

Rationale

- *Numeracy involves drawing on knowledge of particular contexts and circumstances in deciding when to use mathematics, choosing the mathematics to use, and critically evaluating its use.*
- *Students become numerate as they develop the capacity to recognize and understand the role of mathematics in the world around them and the confidence, willingness and ability to apply mathematics to their lives in constructive and meaningful ways.*
- *The Numeracy CEC is designed to offer opportunities for students to reason numerically and think mathematically.*



Further information about the course content and outcomes can be obtained from the website below.

Mathematics Standard
http://educationstandards.nsw.edu.au/wps/portal/nesa/11-12/stage-6-learning-areas/stage-6-mathematics