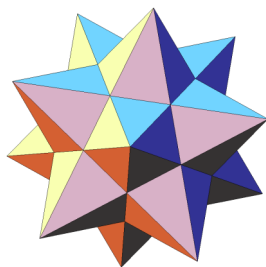




MELVILLE HIGH SCHOOL
MATHEMATICS FACULTY



MATHEMATICS

(Standard 1 and Standard 2)

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



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

MELVILLE HIGH SCHOOL

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

Why study Mathematics (Standard 1 and Standard 2)?

The Mathematics Standard courses are 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.

Mathematics Standard 1 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.

Mathematics Standard 2 is designed for those students who want to extend their mathematical skills beyond Stage 5 but are not seeking the in-depth knowledge of higher mathematics that the study of calculus would provide. This course offers students the opportunity to prepare for a wide range of educational and employment aspirations, including continuing their studies at a tertiary level.

Course Topics

Year 11

- MS-A1 Formulae and Equations
- MS-A2 Linear Relationships
- MS-M1 Applications of Measurement
- MS-M2 Working with Time
- MS-F1 Money Matters
- MS-S1 Data Analysis
- MS-S2 Relative Frequency and Probability

Year 12 Standard 1

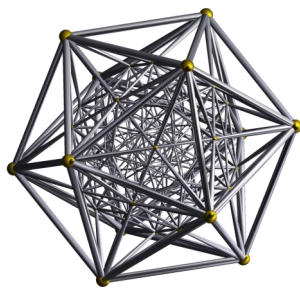
- MS-A3 Types of Relationships
- MS-M3 Right-angled Triangles
- MS-M4 Rates
- MS-M5 Scale Drawings
- MS-F2 Investment
- MS-F3 Depreciation and Loans
- MS-S3 Further Statistical Analysis

Year 12 Standard 2

- MS-A4 Types of Relationships
- MS-M6 Non-right-angled Trigonometry
- MS-M7 Rates and Ratios
- MS-F4 Investments and Loans
- MS-F5 Annuities
- MS-S4 Bivariate Data Analysis
- MS-S5 The Normal Distribution
- MS-N2 Network Concepts
- MS-N3 Critical Path Analysis

Aim

- The study of Mathematics Standard in Stage 6 enables students to develop their knowledge and understanding of what it means to work mathematically, improve their skills to solve problems relating to their present and future needs and aspirations, and improve their understanding of how to communicate in a concise and systematic manner.



Objectives

Knowledge, skills and understanding

- Students develop the ability to apply reasoning, and the use of appropriate language, in the evaluation and construction of arguments and the interpretation and use of models based on mathematical concepts
- develop the ability to use concepts and apply techniques to the solution of problems in algebra and modelling, measurement, financial mathematics, data and statistics, probability and networks
- develop the ability to use mathematical skills and techniques, aided by appropriate technology, to organise information and interpret practical situations
- develop the ability to interpret and communicate mathematics in a variety of written and verbal forms, including diagrams and graphs.

Rationale

- Mathematics is an interconnected subject that involves understanding and reasoning about concepts and the relationships between those concepts. It provides a framework for thinking and a means of communication that is powerful, logical, concise and precise.
- The Mathematics Stage 6 syllabuses are designed to offer opportunities for students to think mathematically. Mathematical thinking is supported by an atmosphere of questioning, communicating, reasoning and reflecting and is engendered by opportunities to generalise, challenge, identify or find connections and think critically and creatively.
- All Mathematics Stage 6 syllabuses provide opportunities for students to develop 21st-century knowledge, skills, understanding, values and attitudes. As part of this, in all courses students are encouraged to learn with the use of appropriate technology and make appropriate choices when selecting technologies as a support for mathematical activity.



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/mathematics-standard-2017>