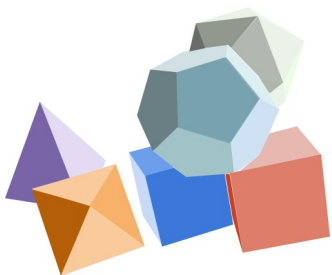




MELVILLE HIGH SCHOOL  
MATHEMATICS FACULTY



# MATHEMATICS

## (Advanced and Extension 1)

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	Mathematician
Actuary	Mechanical engineer
Aerospace engineer	Mechatronic engineer
Agricultural engineer	Medical scientist
Agricultural scientist	Metallurgist
Air traffic controller	Meteorologist
Architect	Mining engineer
Astronomer	Naval architect
Auditor	Optometrist
Bank officer	Orthoptist
Biochemist	Patent examiner
Biotechnologist	Pharmacist
Cartographer	Pharmacologist
Chemical engineer	Physicist
Chemist	Pilot
Civil engineer	Programmer
Company secretary	Quantity surveyor
Computer engineer	Radiation therapist
Economist	Retail buyer
Financial planner	Software engineer
Geophysicist	Sports administrator
Hospital administrator	Statistician
Industrial designer	Surveyor
Industrial engineer	Valuer
Investment analyst	
Logistics clerk	
Market researcher	
Materials engineer	



[www.melville-h.schools.nsw.edu.au](http://www.melville-h.schools.nsw.edu.au)

**MELVILLE HIGH SCHOOL**

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

## Why study Mathematics (Advanced and Extension 1)?

Mathematics is the study of order, relation, pattern, uncertainty and generality and is underpinned by observation, logical reasoning and deduction.

The Mathematics Advanced course is focused on enabling students to appreciate that mathematics is a unique and powerful way of viewing the world to investigate order, relation, pattern, uncertainty and generality. The course provides students with the opportunity to develop ways of thinking in which problems are explored through observation, reflection and reasoning.

The Mathematics Advanced course provides a basis for further studies in disciplines in which mathematics and the skills that constitute thinking mathematically have an important role. It is designed for those students whose future pathways may involve mathematics and its applications in a range of disciplines at the tertiary level.

Extension Mathematics is studied in addition to Mathematics Advanced and classes are run offline. This means classes can be before or after school or on the senior study day.

