

Course Outline Year 8 Semester 2 2026

Mathematics

Course Description and Aims

The framework for MYP mathematics outlines four branches of mathematical study.

1. Numerical and abstract reasoning
2. Thinking with models
3. Spatial reasoning
4. Reasoning with data

The study of mathematics is a fundamental part of a balanced education. It promotes a powerful universal language, analytical reasoning and problem-solving skills that contribute to the development of logical, abstract and critical thinking. The MYP mathematics and challenge mathematics courses promote both inquiry and application, helping students to develop problem-solving techniques that transcend the discipline and are useful in the world outside school.

Mathematics in the MYP is tailored to the needs of students, seeking to intrigue and motivate them to want to learn its principles. Students should see authentic examples of how mathematics is useful and relevant to their lives and be encouraged to apply it to new situations.

MYP Assessment Criteria

Criterion A: Knowing and understanding

Students select and apply mathematics to solve problems in both familiar and unfamiliar situations in a variety of contexts, demonstrating knowledge and understanding of the framework's branches (number, algebra, geometry and trigonometry, statistics and probability).

Criterion B: Investigating patterns

Students work through investigations to become risk-takers, inquirers and critical thinkers.

Criterion C: Communicating

Students use appropriate mathematical language and different forms of representation when communicating mathematical ideas, reasoning and findings, both orally and in writing.

Criterion D: Applying mathematics in real-life contexts

Students transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results.

Course Outline

This semester, you will strengthen your problem-solving skills through number, measurement, statistics and mathematical modelling while applying mathematics to real-world situations. In Term 3, you will investigate rational and irrational numbers, including square roots and pi, and use Pythagoras' Theorem to solve problems involving right-angled triangles. You will also calculate the area and perimeter of composite shapes, solve problems involving circles, and work with area, volume and capacity using appropriate units. In Term 4, you will explore ratios, rates and scale by solving practical and financial problems using mathematical modelling. You will investigate data collection methods, analyse and interpret samples, and conduct statistical investigations while considering fairness and uncertainty. You will also solve problems involving duration and time across different time zones.

Assessment Tasks

Assessment Task	Due*
Test- Criterion B	Week 4
Test- Criteria A & C	Week 8
Test- Criterion D	Week 14
Test- Criteria A & C	Week 17

**Due date subject to change at classroom teacher discretion.*

Approaches to Learning

Communication skills and Thinking skills.

Australian Curriculum Achievement Standard

The Achievement Standard for Year 8 Mathematics is based on the Australian Curriculum v9 Mathematics <https://www.australiancurriculum.edu.au/>.