TELOPEA PARK SCHOOL
LYCÉE FRANCO-AUSTRALIEN

ACT Government Education

Unit Outline Year 10 Semester 1 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 become a skilled data investigator and functional thinker.

In Term 1, you will dive into real-world data analysis—using box plots, histograms, dot plots, quartiles, interquartile range and scatter plots to compare datasets and evaluate statistical claims with confidence. You will also strengthen your algebraic problem-solving skills by tackling linear inequalities and solving simultaneous equations both graphically and algebraically.

In Term 2, you will explore the powerful world of linear, quadratic and exponential functions. You will apply exponent laws, solve equations, work with turning-point form and the discriminant, and use logarithmic scales to interpret and represent relationships. You will model growth and decay processes and use digital tools to uncover patterns, make conjectures, and generalise the mathematical rules that drive them.

Assessment Tasks

Assessment Task	**Due***
Test: Criterion D (Applications in Real Life)	**Week 4-5 Term 1 (Take Home Assignment)**
Test: Criteria A (Knowledge and Understanding) &C (Communication)	**Week 8 Term 1**
Test: Criterion B (Patterns)	**Week 4 Term 2**
Test: Criteria A (Knowledge and Understanding) & C (Communication)	**Week 7 Term 2**

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

Approaches to Learning

Communication, Thinking

Australian Curriculum Achievement Standard

The Achievement Standard for Year 10 Mathematics is based on the Australian Curriculum v9 https://www.australiancurriculum.edu.au/

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