

# **NORTHBROOKS SECONDARY SCHOOL**

**SOARING YET ROOTED**

*Sec 2 Subject  
Information:  
**Additional  
Mathematics  
(G3)***





# Subject Combination offered at G3 Level:

1. Additional Mathematics (G3) is offered as an elective subject, in addition to compulsory subjects such as English Language, Mother Tongue, Mathematics, Pure/Combined Science, Pure/Combined Humanities.
2. Please note that subject combinations are reviewed annually and is subject to change.

# Additional Mathematics Syllabus in a Nutshell

The Additional Mathematics syllabus aims to enable students who have an aptitude and interest in Mathematics to:

- i. acquire mathematical concepts and skills for higher studies in mathematics and to support learning in the other subjects, with emphasis in the sciences, but not limited to the sciences;
- ii. develop thinking, reasoning, communication, application and metacognitive skills through a mathematical approach to problem-solving;
- iii. connect ideas within mathematics and between mathematics and the sciences through applications of mathematics; and
- iv. appreciate the abstract nature and power of mathematics.



# Additional Mathematics Syllabus Content

The content is organised into three strands: Algebra, Geometry and Trigonometry, and Calculus. Topics covered are shown below.

## Algebra

Quadratic functions

Equations and inequalities

Surds

Polynomials and partial fractions

Binomial expansions

Exponential and logarithmic functions

## Geometry & Trigonometry

Trigonometric functions, identities and equations

Coordinate geometry in two dimensions

Proofs in plane geometry

## Calculus

Differentiation and integration

# Assessment Objectives

## **AO1 Use and apply standard techniques**

1. recall and use facts, terminology and notation
2. read and use information directly from tables, graphs, diagrams and texts
3. carry out routine mathematical procedures

## **AO2 Solve problems in a variety of contexts**

1. interpret information to identify the relevant mathematics concept, rule or formula to use
2. translate information from one form to another
3. make and use connections across topics/subtopics
4. formulate problems into mathematical terms
5. analyse and select relevant information and apply appropriate mathematical techniques to solve problems
6. interpret results in the context of a given problem

## **AO3 Reason and communicate mathematically**

1. justify mathematical statements
2. provide explanation in the context of a given problem
3. write mathematical arguments and proofs



# Scheme of Assessment

Paper	Duration	Description	Marks	Weighting
Paper 1	2 h 15 min	There will be 12 – 14 questions of varying marks and lengths.  Candidates are required to answer all questions.	90	50%
Paper 2	2 h 15 min	There will be 9 – 11 questions of varying marks and lengths.  Candidates are required to answer all questions.	90	50%

# Mathematics vs Additional Mathematics: What are the key differences?

1. Mathematics (G3) is influenced by a stronger orientation towards learning mathematics as a tool, whereas Additional Mathematics (G3) is influenced by a stronger orientation towards learning mathematics as a discipline.
2. Students who want to pursue Additional Mathematics need to have:
  - i. Aptitude and interest in Mathematics
  - ii. A strong foundation in algebraic manipulation and mathematical reasoning
  - iii. Values such as persistence and resilience



# Frequently Asked Questions

**Q1** Is Additional Mathematics a compulsory subject for admission to Junior College (JC) / Millennia Institute (MI)?

**A1** Additional Mathematics is **not** a compulsory subject for computation of L1R4 (MI) **for admission** to Junior College (JC) / Millennia Institute (MI).

While students' admission to JC / MI is based on L1R4 results, different JCs / MI require different subject pre-requisites for the subjects that your child / ward can take in JC / MI. Depending on the JC/ MI, Additional Mathematics **may be a requisite subject** to offer A-Level H2 Mathematics.

It is good to find out the relevant information from the targeted JC directly.





# Frequently Asked Questions

**Q2** Will taking Additional Mathematics affect the subjects that I can take in Junior College (JC) / Millennia Institute (MI)?

**A2** Different JCs / MI require different subject pre-requisites for the subjects that your child / ward can take in JC / MI. Depending on the JC / MI, Additional Mathematics **may be a requisite subject** to offer A-Level H2 Mathematics.

It is good to find out the relevant information from the targeted JC directly.



# Frequently Asked Questions

**Q3**      **Is Additional Mathematics a compulsory subject for admission to Polytechnic?**

**A3**      Additional Mathematics is **not** a compulsory subject for computation of ELR2B2 for admission to Polytechnics.

While students' admission to Polytechnics is based on ELR2B2 results, the study of Additional Mathematics can help to build a strong foundation for the study of some Polytechnic courses, e.g., engineering, business and IT.

It is good to find out the relevant information from the targeted Polytechnic directly.

# Useful Links

For more related information about the O-Level Additional Mathematics syllabus examined in 2026, scan the QR code below:



<https://go.gov.sg/oleveladditionalmath2026>

