

Introducing Cambridge IGCSE Subject Mathematics 0580¹

Why Choose This Syllabus?

Cambridge IGCSE Mathematics supports learners in building competency, confidence and fluency in their use of techniques and mathematical understanding. Learners develop a feel for quantity, patterns and relationships, as well as developing reasoning, problem-solving and analytical skills in a variety of abstract and real-life contexts. It provides a strong foundation of mathematical knowledge both for candidates studying mathematics at a higher level and those who will require mathematics to support skills in other subjects.

Our approach in Cambridge IGCSE Mathematics encourages learners to be:

- **confident**, in using mathematical language and techniques to ask questions, explore ideas and communicate
- **responsible**, by taking ownership of their learning, and applying their mathematical knowledge and skills so that they can reason, problem solve and work collaboratively
- **reflective**, by making connections within mathematics and across other subjects, and in evaluating methods and checking solutions
- **innovative**, by applying their knowledge and understanding to solve unfamiliar problems creatively, flexibly and efficiently
- **engaged**, by the beauty, patterns and structure of mathematics, becoming curious to learn about its many applications in society and the economy.

Syllabus Aims

The aims are to enable students to:

- develop a positive attitude towards mathematics in a way that encourages enjoyment, establishes confidence and promotes enquiry and further learning
- develop a feel for number and understand the significance of the results obtained
- apply their mathematical knowledge and skills to their own lives and the world around them
- use creativity and resilience to analyse and solve problems
- communicate mathematics clearly
- develop the ability to reason logically, make inferences and draw conclusions
- develop fluency so that they can appreciate the interdependence of, and connections between, different areas of mathematics
- acquire a foundation for further study in mathematics and other subjects.
- develop the ability to reason logically, make inferences and draw conclusions
- develop fluency so that they can appreciate the interdependence of, and connections between, different areas of mathematics
- acquire a foundation for further study in mathematics and other subjects.

Content Overview

- | | | |
|------------------------|-----------------|--------------------------------|
| 1. Number | 4. Geometry | 7. Transformations and vectors |
| 2. Algebra and graphs | 5. Mensuration | 8. Probability |
| 3. Coordinate geometry | 6. Trigonometry | 9. Statistics |

Continued ►

¹ This content is based on the 2028–2030 version of the Cambridge IGCSE Mathematics syllabus. For the latest updates and detailed information, please visit <https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-igcse-mathematics-0580/>.



Introducing Cambridge IGCSE Subject Mathematics 0580

Cambridge IGCSE Mathematics is tiered to enable effective differentiation for learners. There are two options: Core and Extended. The Core subject content is intended for learners targeting grades C–G, and the Extended subject content is intended for learners targeting grades A*–C. The Extended subject content contains the Core subject content as well as additional content. Please refer to the full syllabus document for detailed information on the Core and Extended subject contents.

Assessment Objectives

Assessment objectives as a percentage of the Core qualification

Assessment Objectives	Weighting in IGCSE %
Knowledge and understanding of mathematical techniques	60-70
Analyse, interpret and communicate mathematically	30-40
Total	100

Assessment objectives as a percentage of the Extended qualification

Assessment Objectives	Weighting in IGCSE %
Knowledge and understanding of mathematical techniques	40-50
Analyse, interpret and communicate mathematically	50-60
Total	100

Previous Study

We recommend that learners starting this course should have studied a mathematics curriculum such as the Cambridge Lower Secondary programme or equivalent national educational framework.

Exam Timetable

Students can take exams in the June and November exam series.

Guided Learning Hours

130 guided learning hours. This is for guidance only. The number of hours a learner needs to achieve the qualification may vary according to each school and the learners' previous experience of the subject.

Further Study

It is recommended that the learners complete the Extended subject content of this course as a previous study for Cambridge International AS & A Level Mathematics 9709.