## <sup>GCSE</sup> Maths

NORTHAMPTON SCHOOL FOR GIRLS

256 550 ab/c OWS Exp  $xAB = \frac{\sin 30^\circ}{\sin 20^\circ} \times 200$ 30 200 342 × 200 92.4 m $-= \sin 50^{\circ}$ -B Gin 50° 92.4 × Sin 50° 224 m

### What is **Maths**?

#### Purpose:

• GCSE Maths is a core subject essential for advancing to A-levels, apprenticeships, and many university courses, especially in STEM fields. Beyond academics, mathematical proficiency enhances everyday decision-making, financial literacy, and logical reasoning, vital in both professional and personal contexts.

#### **Subject-Specific Skills:**

- **Numerical fluency** working confidently with numbers.
- Algebra and problem-solving solving equations and applying maths to real-world problems.
- **Data analysis** interpreting graphs, statistics, and probability.
- **Geometric reasoning** understanding shapes, space, and measurement.







#### **Course Overview and structure.**

#### **Subject content** covers the following areas:

- Number
- Algebra
- Ratio, proportion and rates of change
- Geometry and measures
- Probability
- Statistics

Students will study either **Foundation tier** (grade 1 - 5) or **Higher tier** (grade 4 -9 with grade 3 allowed)

#### NORTHAMPTON SCHOOL FOR GIRLS

#### Assessment

While **Foundation** and **Higher** covers similar topics, the levels of depth will differ. The topics are as follows:

- Number (Foundation 22-28% / Higher 12-18%)
- Algebra (Foundation 17-23% / Higher 27-33%)
- Ratio, Proportion and Rates of change (Foundation - 22-28% / Higher - 17-23%)
- **Geometry and Measures** (Foundation 12-18% / Higher 17-23%)
- Statistics and Probability (Foundation 12-18% / Higher 12-18%)

### GCSE (9-1) Mathematics

Specification	
Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Mat	thematics (1MA1)
First teaching from September 2015	
First certification from June 2017	Issue 2

#### ALWAYS LEARNING

edexcel



#### Assessment

The qualification consists of **3 papers**, which are equally weighted, lasting 90 minutes.

Paper 1 is **non-calculator**, while paper 2 and 3 permit a **calculator**.

Students will study either **foundation tier** (grade 1 - 5) or **higher tier** (grade 4 -9 with grade 3 allowed).





# Key Career Skills

Logical thinking and problem-solving – crucial for

decision-making.

- Attention to detail essential in fields like engineering and finance.
- **Data handling** valuable in business, science, and IT.
- **Time management and resilience** working efficiently under pressure.

## Future career opportunities

Studying **MATHS** can lead to a career in;

Finance & Accounting – banking, investment, actuarial science.
Engineering & Technology – software, AI, mechanical engineering.
Science & Medicine – research, pharmaceuticals, medical fields.
Data Science & IT – cybersecurity, analytics, artificial intelligence.
Business & Economics – market analysis, management, entrepreneurship.





## Future study opportunities

Studying **MATHS** can lead to further study in;

- Any relevant subject at Level 3 (A level), for example at NSG we offer:
  - A Level Further Maths
  - A Level Physics
  - A Level Chemistry
  - A Level Psychology
  - A Level Geography

It can also support **any other subject** where there is a element of analytical and quantitative reasoning needed.