Craigmount High School
Mathematics Faculty

Supporting your child in Maths

S3 Maths | National 5 | Higher | Advanced Higher

Mr Mastoridis



Applications of Maths courses are covered in a separate session.
These slides will be shared after this evening.

Four courses at a glance

	S3 Maths Level 4 → 5	National 5 usually S4	Higher usually S5	Advanced Higher S6
Final exam May · two papers	**No exam yet** building towards N5	**1 h + 1 h 30** non-calculator + calculator	**1 h 15 + 1 h 30** non-calculator + calculator	**1 h + 2 h 30** non-calculator + calculator
Formal assessments exam-style, in school	**November** topics on a later slide	**Nov/Dec** and Feb/March	**Nov/Dec** and March	**Nov/Dec** and Feb/March
Next step what's needed	**National 5** Maths in S4	**A or B for Higher** strong C after discussion	**A or B for** Advanced Higher	**Final school course** university, college, work

Formal assessments give the evidence for estimate grades and next year's course. **Unit assessments** in class check the core C/D skills only — they don't predict the exam grade.

Where marks are won and lost

Show full working, every time. Mathematical rigour is where the marks are — at every level.

National 5

Number, no calculator

negatives, fractions of amounts, × 3.14, splitting numbers

Algebra

indices, rearranging, factorising — especially when the x^2 coefficient isn't 1

Learn by heart

area and circle formulae; discriminant and statistics statements

Higher

Number, no calculator

negatives, reciprocals, roots, simplifying fractions

Algebra

indices, algebraic fractions, factorising

Learn by heart

statements for the discriminant, polynomial factors and collinearity

Advanced Higher

Algebra

fluent with indices and algebraic fractions

Foundations

secure Higher skills sit underneath every AH question

Two quick wins: put negative numbers in brackets when substituting · don't round until the final answer

How to be successful

Six habits that make the difference

1 Finish classwork

Every lesson is on MS Teams, so missed or unfinished work can be completed at home.

2 Do every homework

Set regularly on Teams. Before each assessment we give revision with videos, practice and answers.

3 Start revising early

Maths is practised, not memorised: go over class examples, then try fresh questions.

4 Come to supported study

Free help after school and online, every week. Times on the next slide.

5 Practise past paper questions

Topic by topic now, full papers later in the year.

6 Ask for help early

Don't wait until the end of the course. Ask now, so we can help now.

Plus: every pupil needs their own Casio scientific calculator

Supported study

Free extra help, every week

In school

After school in the Maths department

S1–3	**Tue 3:30 pm**
N5 Maths	**Wed 3:30 pm**
Higher Maths	**Wed 3:30 pm**
Advanced Higher	**Wed 3:30 pm**

Check with the class teacher which room each week

e-Sgoil

Free live online Study Support

N4 Maths	**Mon 6 pm**
N5 Maths	**Mon 5 pm**
Higher Maths	**Tue 5 pm**
Advanced Higher	**Tue 6 pm**

e-sgoil.com

Maths Coach Scotland

Free online maths help

Days	**Tue and Thu**
Time	**6–8 pm**
Runs	**Sept to April**

Not during university holidays

mathscoach.scot

The best practice there is

1. **Try it without notes**
   Answer what you can on your own first.
2. **Fill the gaps**
   Use class notes for anything you're unsure about.
3. **Mark it**
   Check against the marking scheme, or watch the worked solution.
4. **Repeat it later**
   Come back to the same questions later in revision.

Start now: questions on topics already taught. Full papers come later.

Read the wording

The question often tells you how to start.

(a) Factorise $4x^2 - 25$.

(b) Hence simplify $\dfrac{4x^2 - 25}{2x^2 - x - 10}$.

"Hence" means: use your answer to part (a).

Live demo

Where to find it all

mrmmaths.com

LIVE DEMO

Free, built for the Scottish courses

- Past papers by topic or by year
- Worked video solutions
- Practice for N5, Higher and AH

MS Teams

Lessons, homework and revision for your child's class

Free N5 Maths

national5maths.co.uk — exam worksheets by topic, N5 and Higher

Qualifications Scotland

Official past papers and marking instructions

School website

Course timelines for every year group

Thank you for coming

Questions?

Scan the code to send a question to the Maths Faculty.

These slides, with extra reference pages, will be shared after this evening.

Questions for the Maths Faculty

For reference

Grades, assessments and course content

1	2	3	4	5	6	7	8	9
A	A	B	B	C	C	D	No Award	No Award

Grade bands from the final exam. Moving on to the next course normally needs an A or B (for N5 → Higher, a strong C may be discussed).

Unit assessments

In class through the year. They check the core C/D skills and are not a guide to the exam — most important for pupils tracking at D or No Award.

Formal assessments

Exam-style, Nov/Dec and Feb/March (Higher: March). They give the evidence for estimate grades and course recommendations.

Units on their own

Pupils can be presented for units alone, but these don't carry the same standing as the full graded award.

National 5

Expressions and Formulae
Relationships
Applications

Higher

Expressions and Functions
Relationships and Calculus
Applications

Advanced Higher

Geometry, Proof and Systems of Equations
Methods in Algebra and Calculus
Applications of Algebra and Calculus

“Applications” here is a unit of the Maths course — not the separate Applications of Maths course.

For reference

Key skills in full

National 5

Number, no calculator

Multiplying in any order; × 3.14; splitting numbers ($70 \times 7 = 7 \times 10 \times 7$); $\frac{1}{3}$ of 1860 = $\frac{1}{3} \times 1860$; negative numbers; rounding — not too early, and when to leave a fraction

Algebra

Indices; collecting like terms; rearranging (especially with fractions); factorising, especially when the x^2 coefficient isn't 1

Learn the statements

Discriminant; comparing mean, median, standard deviation and IQR

Formulae not given

Area of a rectangle and triangle; area and circumference of a circle; sector area and arc length

Higher

Number, no calculator

Reciprocals; negative numbers; brackets when substituting negatives; roots ($x^2 = 4$ gives $x = \pm 2$); simplifying fractions

Algebra

Indices; collecting like terms; algebraic fractions; factorising, especially when the x^2 coefficient isn't 1

Learn the statements

Discriminant; polynomial factors; collinearity

Formulae not given

Area of a rectangle and triangle; perimeter

Advanced Higher

Working

Full, rigorous working on every line

Algebra

Indices; algebraic fractions

For reference

S3 November topics and using marking schemes

S3 Maths

Non-calculator skills since August; now adding calculator skills. Regular homework is set as revision, aiming for National 5 Maths in S4.

November assessment topics

Solving equations	Expanding single brackets	Compound area
Gradient	Pythagoras	Trigonometry
Mean and range	Scatter graphs	Probability

Finding a marking scheme

1. national5maths.co.uk
2. choose the course
3. SQA Past & Practice Papers
4. marking scheme

What it shows you

Generic scheme — what each mark is for

Illustrative scheme — the working that earns it

Notes — how part-correct answers are marked