Cornwallis Academy
Ambitions for All

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SUCCESSFUL | MOTIVATED | INSPIRED | LEARNING | EXCITED & ENGAGED

Mathematical Studies

Curriculum Intent

This Level 3 Certificate Mathematical Studies qualification will consolidate students' mathematical understanding, build their confidence and competence in applying mathematical techniques to solve a range of problems and introduce them to new techniques and concepts that will prepare them for further study and future employment within a broad range of academic, professional and technical fields.

Mathematical Studies aims to prepare students for the mathematical demands of higher education and work where there is a distinct mathematical or statistical element, but where the mathematical demands do not stretch to a requirement for A-level mathematics.

A course of study leading to this qualification should enable students to:

- study a mathematics curriculum that is integrated with other areas of their study, work or interest leading to the application of mathematics in these areas
- develop mathematical modelling, evaluating and reasoning skills
- solve problems some of which will not be well defined and may not have a unique solution
- solve substantial and real-life problems encountered by adults
- use ICT as an exploratory tool for developing mathematical understanding and when solving problems
- develop skills in the communication, selection, use and interpretation of their mathematics
- enjoy mathematics and develop confidence in using mathematics

Assessment, Marking and Feedback

Year 12 students to sit an end of year exam in April.
Year 13 students to sit a PPE in March and their final exam is in June.

Homework

Homework is set weekly and expected to be completed by hand and returned the following week.

Links to National Curriculum / Syllabus Specifications

Level 3 Mathematical Studies Specification for first teaching in 2014

Exam Support & Revision Resources

- AQA Core Maths subject page (specification, updates, assessment info)
- AQA revision resources (past papers, mark schemes, exam guidance)
- Exampro (AQA question bank used by schools – excellent for practice questions)

Interested to know more?

To read:

- *The Art of Statistics* – David Spiegelhalter (how data is used in medicine, media, and life)
- *Naked Statistics* – Charles Wheelan (very readable intro to why statistics matters)
- *How Not to Be Wrong* – Jordan Ellenberg (everyday thinking using maths)
- *Factfulness* – Hans Rosling (how data changes how we see the world)

To watch:

- Numberphile – fun maths ideas, probability, patterns, surprising problems
- 3Blue1Brown – brilliant visual explanations (great for understanding *why* maths works)
- StatQuest – very clear stats and data explanations (super useful for Core Maths stats topics)
- BBC Ideas / BBC Earth clips – often show real-world data, modelling, and interpretation

To listen:

- *Freakonomics Radio* – how data and incentives explain behaviour
- *More or Less (BBC Radio 4)* – checks statistics in news headlines (perfect for Core Maths)
- *The Infinite Monkey Cage* – science + maths with humour
- *Not So Standard Deviations* – data science and statistics in real life

To visit:

- Science Museum (London) – real engineering, finance, and data applications
- Natural History Museum – statistics in climate, populations, evolution
- The Royal Institution – talks on science, maths, and real-world applications
- Bank of England Museum – inflation, interest rates, and financial maths in real life