Cornwallis Academy
Ambitions for All

SMILE
SUCCESSFUL | MOTIVATED | INSPIRED | LEARNING | EXCITED & ENGAGED

Mathematics

Curriculum Intent

We believe that all our students can be mathematicians, who enjoy and excel in mathematics at all levels. All students, irrespective of ability, should be given the opportunity to achieve their full potential in mathematics.
We are aiming for all our students to be:

- Fluent in the fundamentals of mathematics so they can master the subject
- Good communicators by clearly explaining their thoughts and giving reasons
- Resilient problem solvers who have the confidence to try and try again
- Committed to the 'why', not just the 'how'

At Cornwallis Academy, we teach the National Curriculum for mathematics, which aims to ensure that all pupils:

- Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils have conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions

Assessment, Marking and Feedback

During year 11 students will sit two sets of PPE exams, one set in November and one in February. These will be used to guide next steps.

Homework

All students provided with accounts for Sparx Maths (www.Sparxmaths.com) which offers tutorial videos for all topics and interactive questions available
All year 11 students provided with extensive packs of GCSE past papers for use in class, as directed homework or as independent practice, as dictated by the class teacher (electronic copies of papers, mark schemes and video walkthroughs of all papers included, available at www.mathsgenie.co.uk)

Links to National Curriculum / Syllabus Specifications

https://qualifications.pearson.com/content/dam/pdf/GCSE/mathematics/2015/specification-and-sample-assesment/gcse-maths-2015-specification.pdf

Exam Support & Revision Resources

- All year 11 students are provided with Corbett Maths 5'a'Day revision packs for use in class and independently for all days when they do not have lessons (https://corbettmaths.com/5-a-day/gcse/)
- GCSE Revision Guides, Revision Workbooks and a book of supplementary exam questions (Practice Papers Plus+) available through Parent Pay (https://www.parentpay.com/)
- Topic specific tutorial videos and practice exam questions available at https://www.mathsgenie.co.uk/gcse.html
- Topic specific tutorial videos, practice questions and practice exam questions available at https://corbettmaths.com/contents/
- Additional revision resources available at www.bbc.co.uk/bitesize

Extracurricular and Enrichment Opportunities

- Target forms
- After-school extra Maths sessions
- Lunchtime revision sessions

Interested to know more?

To read:

- A Mathematical Pandora's Box – Brian Bolt
- The Indisputable Existence of Santa Claus – Dr Hannah Fry and Dr Thomas Evans
- Book of Curious and Interesting Mathematics – David Wells

To watch:

- Mathematics is the Queen of Sciences - YouTube
- Journeys of Women in Mathematics – YouTube
- The Joy of Numbers – Amazon Prime

To listen:

- BBC - More or Less
- Numberphile – 4211 The Party Pooper Prime
- The Royal Institution recorded talks

To visit:

- Bletchley Park
- The Winton Gallery in the Science Museum
- Maths City - Leeds