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 of 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

At the end of each unit, there will be an end of unit assessment.
At the end of Term 1, there will be an Autumn assessment based on everything taught so far in Term 1.
At the end of Term 3, there will be a Spring assessment based on everything taught so far in Terms 1-3.
At the end of Term 5, there will be an End of Year assessment based on everything taught so far in Year 7.

Homework

Students are set weekly tasks on Sparx Maths. Students can log in to this website using their school Microsoft login details.

Links to National Curriculum / Syllabus Specifications

Key Stage 3 National Curriculum
https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study/national-curriculum-in-england-mathematics-programmes-of-study#key-stage-3

Exam Support & Revision Resources

- Tutorial videos for all topics and interactive questions available on Sparx Maths.
- Additional revision resources available at www.bbc.co.uk/bitesize
- Key Stage 3 Revision Guides and Revision Workbooks are available on Parent Pay.
- Revision guides
- Calculators

Interested to know more?

To read:
- Why Do Buses Come in Threes?: The Hidden Mathematics of Everyday Life Rob Eastaway, Jeremy Wyndham
- How Long Is a Piece of String?: More Hidden Mathematics of Everyday Life Rob Eastaway, Jeremy Wyndham
- How Many Socks Make a Pair?: Surprisingly Interesting Everyday Maths Rob Eastaway
- Singh, S (2002) The Code Book: The Secret History of Codes and Code-breaking

- Singh, S. (2014) The Simpsons and their Mathematical Secrets

To watch:

- The History of Mathematics in 300 Stamps - Professor Robin Wilson
- What Maths Really Does - Professor Alain Goriely
- The Sound of Symmetry and the Symmetry of Sound - Marcus du Sautoy
- Hidden Figures (Rated PG) - 2016 American biographical drama film about African American female mathematicians who worked at the National Aeronautics and Space Administration (NASA) during the Space Race

To listen:

- The Numberphile Podcast - Interviews with people who love numbers and mathematics.
- Math Mutationhttp://mathmutation.blogspot.com/ - a podcast for people of all ages where we discuss fun, interesting, or just plain weird corners of mathematics that you would not have heard in school
- Mathematics Simplified - Maths is often dreaded as a subject by most of the students. Here is an attempt to simplify various topics in Mathematics and help reduce Maths Phobia.
- The Powers of Math - Tired of being confused about math? The Powers of Math podcast explains basic Algebra concepts in a straightforward way and discusses practical applications of math in business and everyday life.

To visit:

- Bletchley Park
- Bank of England Museum
- LEGOLAND® Windsor Resort