Mathematics Curriculum: Year 7

The Mathematics Curriculum will develop the knowledge and cultural capital needed for students to succeed in life, leaving school with mathematical skills for future learning and future employment. The Mathematics Curriculum is rigorous and ambitious for every student. It is carefully planned to maximise the progress from the first day of year 7 to the last day of year 11. The Mathematics Curriculum seeks to raise the aspirations of our students and includes links with careers and financial capability. It provides our students with the knowledge they need for future success in education and helps students to develop core transferable skills required for success in later life.

All students follow an introductory unit: Maths is everywhere. Students will gain an understanding of the areas of mathematics that will appear in other subjects such as Geography, Science, Engineering and Physical Education.

Autumn 1	**Autumn 2**	**Spring 1**
Students will study the following units in mathematics in the first Autumn term. • Sequences • Understand and use algebraic notation. • Equality and equivalence.	Students will study the following units in mathematics in the second Autumn term. • Place Value, ordering integers and decimals. • Fraction, decimal and percentage equivalence.	Students will study the following units in mathematics in the first spring term. • Solving problems with addition and subtraction. • Solving problems with multiplication and division. • Fractions and percentages of amounts.
Important vocabulary: Linear, term, geometric, Fibonacci expression, variable, coefficient, greater than, less than equal.	**Important vocabulary:** Integer, decimal, tenths, hundredths, numerator, denominator, mixed number, improper fraction, percent.	**Important vocabulary:** Inverse, operation, fact family, percent, perimeter.
Spring 2	**Summer 1**	**Summer 2**
Students will study the following units in mathematics in the second spring term. • Operations and equations with directed number. • Addition and subtraction of fractions.	Students will study the following units in mathematics in the first summer term. • Constructing, measuring and using geometric notation. • Developing geometric reasoning.	Students will study the following units in mathematics in the second summer term. • Developing number sense. • Sets and probability. • Prime numbers and proof
Important vocabulary: Negative, positive, number line, numerator, denominator, improper fraction, mixed number.	**Important vocabulary:** Line segment, geometric notation, protractor, acute, obtuse, reflex.	**Important vocabulary:** Factor, multiple, estimation, likely, unlikely, complement, intersection, event, outcome, prime number.

These topics will also help students to:

- Make connections between units and develop an appreciation that mathematical topics are related.
- Not to be afraid of "being lost" and having to struggle to find a way through a problem.
- To use calculation to solve basic problems.
- To be resilient and persevere with tasks and challenges.
- To have rapid and sound memorisation of mathematical material.

Key staff contacts:

Faculty Leader: Mr M Fryirs m.fryirs@fi.coastandvale.academy

Head of Year 7: Ms L St Pierre l.stpierre@fi.coastandvale.academy

How parents can help:

- Review key vocabulary with your child to help them transfer it to their long-term memory.
- Ask students to explain what they have learnt that week, this also helps build long-term memory.
- Spend time together accessing the following websites – Corbettmaths, Maths Genie and Mathswatch (Students will have their login details). All of these websites contain a broad range of resources and questions along with video explanations.
- Visit Corbettmaths website and click 5 a day worksheets. 5 a days are 5 questions per sheet on 5 different topics. If students were to complete just 3 of these per week, this would make a huge positive impact to their understanding of mathematics.

How your child will be assessed:

We operate a thorough testing process. Students complete a short test every unit of work to assess progress. At KS3 (Years 7, 8 and 9) the tests consist of a short 30 minute test paper, typically every two weeks. Each test paper is marked and the Question Level Analysis is stored in our records database so we have a full diagnosis of strengths and weaknesses of each individual student. After doing test corrections and intervention there is an opportunity to improve during the Improvement Check Homework that takes place during the week after the test results are issued. The QLA from the test informs planning: any remaining misconceptions are drip fed into subsequent lessons in interleaving retrieval starters and cumulative starters

Students are entered for Pearson Edexcel GCSE Mathematics at the end of year 11. Traditionally our top sets and second sets are entered for Higher Tier. Our third set and fourth set are both entered for Foundation Tier.

Please feel free to contact us to discuss our assessment policy in depth.