



## Curriculum Overview: Maths

Mathematics is fundamental to life in the sense that its unique language helps us to calculate, estimate and problem-solve. It also informs many of the choices and decisions we make about real-life issues and challenges and the actions we subsequently take. Students at St Philip Howard will develop their problem solving strategies which can be used in Maths and applied to everyday and real world situations.

Our aim is to enable all students to:

- a positive attitude towards mathematics, as well as competence and confidence in mathematical knowledge, concepts and skills;
- an ability to solve problems, to reason, to think logically and to work systematically and logically;
- the skills to use their own initiative and an ability to work both independently and in co-operation with others;
- an ability to communicate through mathematics and to use and apply mathematics across the curriculum and in real life.

At St Philip Howard, all students study a 5 year Maths programme. The new GCSE has enabled us to set pathways for all students to achieve success in Maths.

In year 7 and 8, students are assessed to sit either a delta, theta or pi scheme for learning. Students are encouraged to problem solve using basic Maths skills early on. Students are put into the practice to become more fluent in skills and be able to apply and extend their knowledge. Standardised assessments allow students to gain feedback on their strengths and weaknesses, and improve these. The new scheme allows students be more reflective and aware in the build up to year 9 to 11.

In year 7 and 8, students cover units through in Number, Algebra, Ratio and Geometry. Students are given the opportunity to see the real life application of such topics and also to be able to apply skills in different units.

In year 9, students begin the GCSE scheme for learning which allows students to reflect on their learning before their final assessments in year 11.

The new GCSE is split into 5 parts and 20 units:

- Number – 20%
- Algebra – 30%
- Ratio – 25%
- Geometry – 15%
- Statistics – 10%

The 20 units are spread over 3 years of learning, which means students are regularly being tested and have practice in the build up to GCSE. The early start also means students can become more competent in their chosen tier of entry, Higher or Foundation.

The 9-1 GCSE course has become more challenging yet engaging. Older Higher topics like Vectors and Trigonometry now also feature on the Foundation course. A level topics such as Expanding trinomials and Finding the area under a curve now feature in the Higher course. The new GCSE means students will be able to see the real life application of Maths and our engaging teachers will allow students to build a love for the subject.