

**Mathematics & Computing at Trinity School**

**The Mathematics and Computing Faculty**

**Faculty Ethos**

Mathematics is important to all modern society as it is fundamental to problem solving and decision making. Mathematics is a subject which transcends all walks of life and provides essential tools for a modern society which range from the beauty of nature to computer programming and designing modern apps.

We want Maths and Computing at Trinity School to be engaging and relevant to modern life and will create lessons which support this.

**Maths Curriculum**

KEY STAGE 3

In years 7 and 8, students receive three one-hour lessons a week. They are expected to produce at least one written home learning piece per week. For the first time this year, students in Year 7 follow the Mathematics Mastery approach, with the intention that this will continue into year 8 next year. If a student does need support with any class or home learning task then there will always be staff on hand to assist. In computing students receive one hour a week in year 7 and one hour in year 8 covering IT, Coding and Digital Literacy.

KEY STAGE 4

Students begin the Key Stage 4 course in year 9. At Key Stage 4, students receive four one-hour lesson a week and are expected to produce at least one written piece of homework per week. The examination board used is EdExcel and students are entered at the appropriate level, either Foundation or Higher. Students are encouraged to apply a problem solving approach to mathematics and are taught the skills to answer the new GCSE questions.

KEY STAGE 5

# In the Sixth Form we offer A2 courses in both Mathematics and Further

# Mathematics combining modules in Core, Mechanics, Statistics and Decision

# Mathematics. We also offer students the opportunity to take an AS in Core Maths. Students receive four one-hour lessons per week and eight lessons if they are taking both Mathematics and Further Mathematics. We provide extra lessons for those students taking Oxbridge entrance exams and/or applying to a University course which requires a STEP qualification in Mathematics. We are proud of our students who go on to university to study mathematically based degrees at the best universities in the country and internationally including Harvard, USA.

**Computing Curriculum**

KEY STAGE 3

In years 7 and 8, Computer Science is included in the #Trinity3 timetable, along with lessons on resilience and teamwork. In their Computer Science lessons, students learn the principles of computer programming with LOGO, Scratch and Python. They also learn what an algorithm is as well as how to structure and write them.

KEY STAGE 4

Students may choose to study OCR GCSE Computer Science in years 9 to 11. In the three 1-hour lessons per week, the students learn about the components inside a computer system, how they work together, how to think logically, how to interpret and create algorithms and how to write programs in Python. The course is examined through two external examination papers. In addition, students must complete a 20 hour programming project in year 10 or 11.

KEY STAGE 5

At Sixth Form, we offer BTEC Level 3 Extended Certificate in Information Technology. This involves four 1-hour lessons per week in which students study four separate units. In the first unit is assessed through external examination, and covers designing and critiquing I.T. systems, as well as the related U.K. legislation. The second unit is assessed by a 10-hour, externally marked controlled assessment. It covers designing and building databases. The final two units cover the use of social media in business, and web development. They are assessed through centre-marked coursework units.

**Extra-Curricular activities and Enrichment**

All students have equal entitlement to extra support and access to extra-curricular activities. We provide revision classes, after school, enrichment club that targets our gifted and talented students as well as homework clubs. We also enter our students in the UKMT Challenge team and individual events.

**Staff**

We have a very experienced teaching staff. There are nine members of staff, who teach across all key stages, including three senior staff who are Maths specialists. The faculty also has a full time Higher Level Teaching Assistant (HLTA) who supports students in the classroom, and with small targeted groups of students.

**Accommodation**

The Mathematics Faculty has eight well-appointed rooms, including a new-build classroom, situated together in one suite. All are equipped with interactive white boards, and staff are provided with a school laptop. Maths and Computing also benefits from a dedicated ICT room which is prioritised for the ICT and computer science lessons.