St.Thomas More
CATHOLIC SCHOOL

Computing

OVERVIEW

During KS3 pupils receive one lesson per week of computing education in one of our three well-equipped ICT suites. The programme of study is designed to meet the requirements of the National Curriculum for England, but is enriched by further opportunities for digital creativity, using a range of innovative hardware and software. Pupils are expected to complete two pieces of homework and one formal assessment approximately every half term. The curriculum is supplemented by weekly extra-curricular activities; Coding Club and #TechFutureGirls and daily lunch time drop-ins in the main ICT suite.

AIMS

To ensure that pupils:

- are responsible, competent, confident and creative users of information and communication technology
- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems

PROGRAMME OF STUDY

Year 7

- ICT induction / digital literacy
- Using computers safely, effectively and responsibly
- Data handling with spreadsheets
- Computational thinking
- Hardware, software and types of computer
- Computer graphics

Year 8

- Computer crime and cyber security
- Understanding computers
- Data handling with spreadsheets II
- Introduction to Python programming
- Computer animation
- Independent programming project

Year 9

- Python programming: next steps
- Database development
- Ethical, legal, cultural and environmental concerns of computing*
- Computer networks
- HTML and web development
- Independent programming project

**GCSE Computer Science Unit*