

ICT/Computing



Department Intent: To provide students with the skills needed in an ever changing digital World. To stimulate pupil interest and empower them with advanced computing skills needed in modern society.

KS4 – Computer Science

Intention Overview: To deepen the students' understanding of Computer Science with focus on computer hardware, software and programming. Students will also learn skills in cyber security, computer networking and learn how to troubleshoot computers problems.

Curriculum Knowledge	
<p>Year 10: Students seek understanding of computer science for Exam Component 1 which includes computer hardware, software, networking, cyber security, computer legislations, environmental impact of digital technology, Binary, number systems, binary calculations and logical operators.</p> <p>Year 11: Students focus on completing HTML, Algorithm and then spend Half Term 3 studying Programming and project management. By February HT, exam revision begins.</p>	
Skill Development	
<p>Subject Specific Skills:</p> <ul style="list-style-type: none"> ● Knowledge and understanding of Computer Science. ● Understanding of how to interpret and write algorithm. ● Problem solving ability. 	<p>Wider Academic Skills / Attributes:</p> <ul style="list-style-type: none"> ● Constructive ability to analyse contextual questions. ● Planning extended answers that demonstrate skills and knowledge of the subject.
Personal Development - SMSC and Cultural Capital (opportunities/experiences)	
<ul style="list-style-type: none"> ● Students are taught about their rights and responsibilities in terms of their ethical and legal use of computer systems and the consequences of their actions in relation to such ('Digital Footprint and 'Computer Misuse') ● Students also learn how to work collaboratively and independently to solve complex problems. ● Critical thought and the ability to question and make judgements. ● Cyber Crime and legislations looks at broader factors on computer vulnerability. ● Developed and Developing countries digital divide and how technology shape political scene. 	

Implementation:

- The lessons are centrally planned and consistent with the demands of our schemes of learning. The lessons include regular exam-style assessment to support student progress.
- An assessment calendar is in place for KS4, and is reviewed annually.
- Revision guides and cards are available in school.
- We use google classroom to provide links to our lesson resources, useful YouTube clips, www.csnewbs.com, Quizlet and Seneca to support revision of prior learning.

Measuring Impact:

- Assessment folders provide students with exam-style assessments and feedback to support their revision.
- HOD conducts learning walks and work scrutiny to check for consistency across the Department.