



Department:	Computer Science
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Year 9 Course summary:

In Year 9, students cover a small subset on the Unit 1 theory, in order to introduce a more formal way of working compared to that of Key Stage 3. Following an introduction to the core components of computing hardware and software, the emphasis moves towards practical skills and content for Unit 2. Programming forms a large part of the offering in Year 9. Students begin with console (text) based programs in Visual Basic, before introducing GUI development (above GCSE required skills). This spiral approach allows key algorithms to be revisited and practised in a new context, assisting with the concretion of skills and knowledge. By the end of the year, most students are working at levels above those needed for the exam tasks and are developing an awareness of the rigours that may be required for larger, real-world projects.

New Topics Covered:

- 1.1 Systems Architecture (introduction)
- 1.3 Storage
- 1.7 Systems Software (introduction)
- 1.8 Ethical, Legal, Cultural and Environmental Concerns (introduction)

- 2.1 Algorithms (introduction)
- 2.2 Programming Techniques
- 2.3 Producing Robust Programs
- 2.4 Computational Logic
- 2.6 Data Representation

Assessment of students' work focuses on monitoring their development of practical skills using the Programming Tracker booklet and accompanying showcases of their project work.

There are a number of extra-curricular opportunities available to students. There are two lunchtime support sessions each week, opportunities to assist with Digital Schoolhouse workshops for local primary schools and an "open access" policy for students' own programming projects. Students may also take part in the popular Esports competitions.

IST Assessments:

Michaelmas 1	Michaelmas 2	Lent 1	Lent 2	Summer 1	Summer 2
Coding project from Tracker Booklet	Haunted House planning	Haunted House doc	Coding project from Tracker Booklet	Coding standards essay	"Strings" project doc