KEY STAGE FOUR PATHWAYS

Subject Title: **GCSE Computer Science**

Subject Team Leader: **Mr J Ahmed (jahmed@perins.hants.sch.uk)**
Examination Board: **Pearson Edexcel (1CP2)**

Course Content

This academic course covers computer programming and how computers work at a technical level. The course gives an overview of a wide range of topics.

Areas of theoretical study include:

- Computer Hardware
- Computer Software
- Computer Communications
- Networking
- Security
- Data Representation
- Databases
- Computer Programming

Students will also acquire practical skills with the Python programming language.

Tiers & Grading

- GCSE results are awarded on a 9 to 1 scale. Candidates' final Grade is awarded based on contributions from two exam assessments.

To support pupils learning in Computer Science we plan a range of optional trips, visits and external speakers, these change each year but could include:

- Visit to Bletchley Park & the Computing Museum
- Cyber security speakers
- Hack-a-thon.

Assessment

Principles of Computer Science (Written Exam):
Worth 50% of qualification.
Assessing topics including computational thinking, data representation, hardware, software, programming languages, networks, network security and issues and impact.

Application of Computational Thinking (On screen assessment):
Worth 50% of qualification.
Assessing programming techniques in the Python programming language.

Beyond the specification
As well as covering the GCSE specification, we also go beyond the specification, teaching areas such as:

- Programming a Graphical User Interface
- Creation of SQL databases
- Building a network & computer systems
- Artificial Intelligence
- Cyber Security
- Additional programming languages

While this content is not directly examined, it helps to enhance students' understanding of the subject and provides skills that could be taken into the workplace.