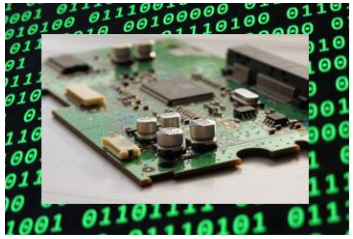
KS3 COMPUTER SCIENCE AND ICT SKILLS

YEAR 7 / 8

OVERVIEW

The purpose of Computer Science at KS3 is to equip learners with the knowledge of computational thinking, develop understanding of digital systems and apply this knowledge in a range of content. Learners will develop skills to become digitally literate and to build confidence to use technology.



Topics you will learn

- **Issues of Computer use** - E-safety and potential risk when using computer devices and the Internet such as cyberbullying. Various data security issues and how to avoid data loss, infection of viruses/worms when using computers online to protect data from security threats.
- **Knowledge of computing** -Basic architecture of a computer, how the various parts connects and the evolution of computers (timeline). Hardware, software, storage devices, input and output devices, data representation using binary number system.
- **Control System (Flowol)** – Use flowcharts to produce control systems to mimic real life scenarios that uses basic inputs /outputs and loops. Understand how to create subroutines and manipulate variables.
- **Algorithms and Programming -**Designing an algorithm using flowcharts**, C**oncept of programming using online tools such as, Google blockly, Khan Academy and Code.org, progressing to coding using Microbit and Python.

How you will be assessed

Assessment is by classwork end of topics assessment.

YEAR 9

OVERVIEW

The purpose of the curriculum in year 9, is to prepare learners for KS4 courses which currently are Functional Skills ICT and OCR Creative iMedia. Learners will able be equipped with Digital Literacy skills towards the Prince's Trust qualification.

Topics you will learn

- **Using computer safely and wisely** - E-safety, cyber bullying, how to search the web safely, computer misuse act.
- **Using ICT** - Select and use software applications to meet needs and solve straightforward problems.
- **Finding and selecting information -** Use search techniques to locate and select relevant information.
- **Developing, presenting and communicating information -** Use the Internet, presentation software, word processing software and Spreadsheet software to present information**.** Use communication software (email) to read, send and receive electronic messages with attachments.
- **Graphics** - Characteristics of vector and bitmap graphics. Enhancement and add effects to graphics. Create graphics using Serif DrawPlus.
- **Website design** – Introduction to basic HTML tags to create a simple website. Create a website using Serif WebPlus.

How you will be assessed

Assessment is by classwork and end of topics test using past papers.