IT
Curriculum Map

Year 7

Introduction to the network
Business documents
Control programming with Flowol
Internet safety
Spreadsheets (Priory Papers)

Year 8

Web development
Programming with Python
Databases (Marvel Superheroes)
Spreadsheets (China Friends)

Year 9

Graphics
Multimedia websites
Digital animation

Year 10/11

Creating a digital graphic
Creating a multi-page website
Creating a digital animation
Pre-production skills (Examination)

Year 12

Creating systems to manage information
Using social media in business (Coursework Unit)

Year 13

Information Technology Systems
Website development

Computing Curriculum Map

Year 7

Introduction to Scratch
Scratch game project

Year 8

Basic Flash skills
Water Aid project brief

Year 9

Introduction to programming
Algorithms and flowcharts
Fundamentals of Python
Binary and hexadecimal
Turtle using Python
Computer ethics project

Year 10

Python consolidation of key skills
Computer hardware
Computational thinking and specific algorithms (searching and sorting)
Storing data
Cyber security
Advanced programing tasks

Year 11

Computer systems
Computer networks
Ethical, legal and environmental impacts of digital technology

Revision
Revisit pseudocode and flowcharts Revisit cyber security
Revisit number bases and data storage
Revisit computer systems
General revision & examination practice

Year 12

Computational thinking
Finite state machines
Beginning Visual Basic
Data representation & encryption
Standard algorithms
Object oriented programming
Event driven Visual Basic
Logic & Boolean algebra
Systematic approach to problem solving
Computer systems hardware, operating systems, languages

Year 13

Hardware/ peripherals
Computer architecture
Fundamentals of networking
The Internet fundamentals
Internet security
TCP-IP (Transmission Control Protocol/Internet Protocol)
Client server Databases
SQL (Structured Query Language) & DDL (Data Definition Language)
Consequences of uses of computing
Theory of computation
Data structures
Advanced algorithms
Big data

IT and Computing Assessment Guidance

Much of the students' work is completed on screen and focusses on developing skills with either software applications or programming solutions. Short term assessment therefore takes the form of verbal feedback and support. This forms the basis of a coaching model where teachers observe progress and intervene as necessary. This is under-pinned by traditional teaching in relation to the relevant theoretical knowledge associated with each subject.

Key finished products and associated documentation are assessed in detail and feedback given (in line with external examination board guidelines where appropriate). At KS4/5 these will be assessed against examination board criteria, whereas at KS3 the criteria will be defined internally by the Academy. Throughout Years 7 to 11, online testing is used to assess subject knowledge and understanding. Feedback in this case is immediate and specific.

In Years 9-13 written examinations are used at the end of subject units as well as annual mock examinations. Where possible these are based on examination board materials and formally assessed by the teacher in line with the examination board criteria. Coursework units in Years 9-13 are assessed and feedback is given in line with examination board procedures.

The validity and reliability of the techniques described above are supported by their closeness to examination board criteria. This is replicated in ear 7and 8 at a necessarily more basic level. In years 7 and 8 the wide variety of assignments can lead to students scoring unevenly across the year, but this serves to differentiate between the requirements of Computer Science and ICT.

Students derive value from the framework in terms of immediacy of feedback and through their understanding of the way they are being assessed against a series of shared criteria. This serves to identify gaps in their knowledge/evidence. Teachers derive value from the framework in that they can use the assessment data to inform module grades and written report content and through more detailed analysis, identify modifications to the associated Scheme of Learning for delivery to future cohorts.