

Co-op Academy Walkden | ICT & Computing Learning Journey

Apprenticeships
 Cyber Security
 Digital Analyst
 Network Engineer
 Software Engineer
 CAD Designer
 MIS, MI6 & GCHQ

Further & Higher study
 A Level / Level 3+ courses in
 Computer Science
 Mathematics
 Science
 Design & Engineering

Further & Higher study
 A Level / Level 3+ courses in
 ICT
 Creative iMedia
 Media
 Games Art & Development

Apprenticeships
 Web Design
 Games Developer
 Animator
 Data Analyst
 Software Architect

Students will have developed effective logical thinking, problem solving, analytical, independence, team working and application skills, valuable in day-to-day future experiences

Students will have developed planning methods, creative and research skills, ability to work independently and as part of a team

Revision and final exam preparation

Final Exam papers

R093 Exam

Ethical, legal and environmental
 Impact and risks of digital technologies on society
 GDPR

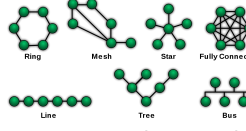
Systems security and software
 Authentication, encryption, firewalls & MAC addressing
 Cyber security threats, processes and procedures

R093
 Exam preparation and revision

NEA completion
 Preparation for moderation

Optional unit (NEA 2)
 Planning, creating, testing and reviewing a digital product, following a specified client brief

R094 Visual Identity and Digital Graphics (NEA 1)
 Interpret and apply details of a client brief when creating a digital graphic



Networks - wired & wireless, topologies
 Bus, Star, Mesh, Ring
 Protocols

Memory & Storage
 Primary, secondary and tertiary
 Volatile vs non-volatile
 Magnetic, solid state
 optical & cloud
 storage types



Robust programming
 Efficiency techniques using iteration, selection and subroutines

Programming Techniques
 Arithmetic operations
 Variables and constants
 Sorting and searching algorithms

Computing logic and data representation
 Binary & hex number bases
 Character coding - ASCII and unicode
 Data compression

Systems Architecture
 Von Neumann architecture
 FDE Cycle
 Embedded Systems

R093 Creative iMedia in the Media Industry
 Pre-production planning and Distribution considerations

R093 Creative iMedia in the Media Industry
 Factors influencing product design

GCSE Computer Science

CamNat. Creative iMedia

Year 10

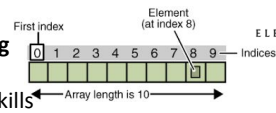
Year 9

- CHATROOMS - eSafety
 Demonstrating safe practices - peer pressure



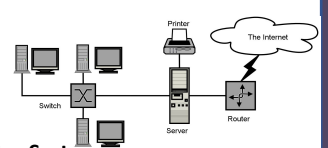
Using Applications
 Planning and designing digital products (graphic design)

Programming
 Developing programming skills using Lists, tables and arrays



Using Applications
 Developing digital products
 Game design

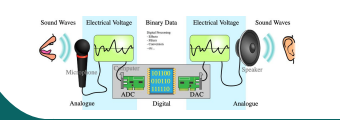
Programming
 Developing programming skills using functions and procedures



Computer Systems
 Understanding how computer networks and their components are connected

KS4 Option choices

Data Handling and Storage
 Examining how computer systems handle data using databases

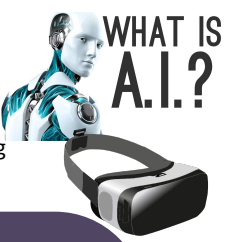


Using Applications
 Developing web design skill using WYSIWYG software packages

Computational Thinking
 Exploring data structures
 Data types and types of iteration

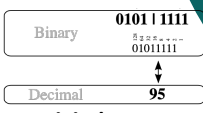


eSafety & Trends in Computing
 Demonstrating safe practices using social media and emerging technologies



Year 8

Digital Representation
 Exploring how text, sound and images are handled by computer systems

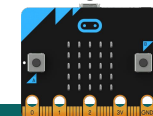


Web Design
 Exploring target audiences and principles of web design using HTML



Creating and repurposing digital artifacts
 Exploring logo design

Computational Thinking
 Problem solving
 Resolving practical programming problems using Micro:bits



Animation
 Examining the origins and how to create animation



Computational Thinking
 Abstraction and decomposition
 Basic programming constructs of Sequence, selection and iteration

Welcome Navigating the network
 Google Suite & Email



eSafety
 Demonstrating safe practices online



Spreadsheet Modelling
 Understanding how spreadsheets work in the real world



Collecting and Analysing Data
 Investigating social, ethical and legal issues associated with modern data technologies



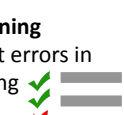
Computer Systems
 Identifying the differences and features of Hardware and Software. Inputs, outputs and storage

Year 7

Combine a variety of software
 Accomplish goals through collecting, analysing, evaluating and presenting data and information



Logical Reasoning
 Identify and correct errors in programming



Primary School



Computer networks
 Using the World Wide Web
 Opportunities for communication and collaboration



eSafety
 Using technology safely
 Recognise acceptable/unacceptable behaviour



KS2 National Curriculum