

Culcheth High School Key Stage 4 Curriculum Map 2020 - 2021

Computer Science Year 10

OCR



| | Autumn Term 1 | Autumn Term 2 | Spring Term 1 | Spring Term 2 | Summer Term 1 | Summer Term 2 |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Key Concepts | Introduction to Computing Systems & Data Representation | Data Representation | Structured and Unstructured Data, Software, Embedded systems | Sorting and Searching Algorithms | NEA Preparation and Completion | NEA completion and preparation |
| Themes | System Architecture, basic hardware components (CPU, Memory and Storage) | Binary, Hexadecimal, Sound, Images, Character recognition, Encryption and Compression. | Database management | Bubble, Insertion and Merge sort Algorithms. Linear and Binary Search Algorithms | Computational Thinking: Analysing, designing, implementing, testing and evaluating problems | Computational Thinking: Analysing, designing, implementing, testing and evaluating problems |
| Writing Whole school literacy focus | Exam technique and key term recognition | Exam technique and key term recognition | Exam technique and key term recognition | Exam technique and key term recognition | Exam technique and key term recognition | Exam technique and key term recognition |
| Spiritual, Moral, Social and Cultural theme (SMSC) Fundamental British Values | Personal organisation and financial modelling Risk avoidance | Ethical Programming Data Security | Ethical Programming Problem-solving Prioritising events | Ethical Programming Data Protection | Planning & considering others | Planning & considering others Data Security and Access rights to data |
| Key Assessment Focuses, Suggested Assessments and Feedback Week | Practical Assessments QMA | Practical Assessments QMA | Practical Assessments | QMA | QMA | QMA |
| Special Events | | | | | | |
| Possible Visits | | | | | Science and Industry Museum | |