

# Culcheth High School Key Stage 3 Curriculum Map 2020 - 2021

## Computer Science Year 8



	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Key Concepts	Data Representation & Cyphers	Network safety, Operating Systems and Programming Languages	Advanced Problem solving	Sorting and Searching	Relational Database Structures and Computer Architecture	Logic and Emerging Technology
Themes	8-bit binary numbers Hexadecimal & Caesar Ciphers	Network Safety, Command line programming, high and low-level programming	Iteration, selection statements, Functions, procedures and arrays	Binary and Linear Searches  Bubble and Merge sorts	Validation and data structure, also GUI and functions relating to the CPU	Logic gate structure in programming. Digital awareness and appropriate use of technology
Writing Whole school literacy focus	Encryption and decryption	Structure of solutions and development of codes	Pseudocode  Decomposition and naming conventions (Subject-specific vocab)	Writing code  Exam technique	Selection of appropriate information (Boolean operators)	Selection and presentation of data
Spiritual, Moral, Social and Cultural theme (SMSC) Fundamental British Values	Security of Data / Encryption and the need for privacy	Audience and purpose  Fitness for purpose	Ethical techniques  Working in groups	Working in groups	Data processing and security  Collection of data and data protection	Safe and responsible use of digital technology  Social, Ethical and Moral issues with Internet technology
Key Assessment Focuses, Suggested Assessments and Feedback Week	Project assessments, exam-style questions and homework tasks (QMA 1 binary, data and encryption)	Iteration feedback and final coding challenge for assessment	Programming assessment (QMA2) with feedback the week after	Project assessments, exam-style questions and homework tasks (QMA 3)	Database structure assessment (QMA 4 with feedback the following week)	Project assessments, exam-style questions and homework tasks QMA
Special Events						
Possible Visits						