

COMPUTING CURRICULUM ROAD MAP

**YEAR 9
KS3**

INTRODUCTION TO SCHOOL NETWORK

WHAT COMPUTERS DO / HOW COMPUTERS WORK

HISTORY OF COMPUTING

0/1 TO STORE IMAGES AND SOUNDS

BINARY MATHS / DATA REPRESENTATION

ABSTRACTION / DECOMPOSITION

ALGORITHMS
PYTHON PROGRAMMING

BITS / BYTES / ONLINE SAFETY

DATA UNITS / DIGITAL FOOTPRINT

**YEAR 10
GCSE**

VON NEUMANN ARCHITECTURE / MEMORY

COMPUTER SYSTEMS

BINARY / DENARY / HEXADECIMAL

FUNDAMENTALS OF DATA REPRESENTATION

ALGORITHM TRACING

PSEUDOCODE

SEQUENCE / SELECTION / ITERATION

PYTHON PROGRAMMING

SEARCHING / SORTING / EFFICIENCY

FUNDAMENTALS OF ALGORITHMS

IMAGES AND SOUND IN BINARY

CONSTRUCTS OF HIGH LEVEL LANGUAGE

TOPOLOGIES / PROTOCOLS / TCP/IP

FUNDAMENTALS OF COMPUTER NETWORKS

INTERROGATING DATABASES

**YEAR 11
GCSE**

CYBER SECURITY

RELATIONAL DATABASES AND SQL

ETHICAL, LEGAL AND ENVIRONMENTAL IMPACTS

ASSESSMENT READY

ONLINE SAFETY

COMPUTING AND SOCIETY

CONCEPTS, KNOWLEDGE AND SKILLS TAUGHT THROUGHOUT EACH UNIT

