KS3 IT & Computing Curriculum 2026-27

YEAR 7	YEAR 8	YEAR 9
General IT Procedures & ESAFETY What is online safety Cyberbullying Sharing personal information & content online Online gaming Strong passwords	**ESAFETY** Think before you share Check if it's for real Respect each other	**E-SAFETY** Social Engineering Malware Hacking, DOS Attack You and your data Screen time awareness
COMPUTATIONAL THINKING & DATA REP Computational Thinking & Algorithms Decomposition and Binary to Denary Abstraction and Denary to Binary Pattern Recognition & Introduction to Hex	**PROGRAMMING & LAb:BITS** Micro:bit and the Robo:bit Making a 'Switch' and a 'Dice Control - Traffic Lights & Control Motor Speed Colour a Rainbow and Scare the Micro:bit	**PROGRAMMING PYHON** Variables Input Output Arithmetic & Casting Iteration - For & While Loops Selection – IF statements Data Structures - Lists, Procedures
BLOCK BASE PROGRAMMING & Microbits Using Computational Thinking Online Micro bit simulator Programming Microbits Programming Robo: Bit Iteration – Real Life examples	**SPREADSHEETS** Concatenation VLOOKUP, IF Function Data Validation Formatting Datatypes Graphical Representation	**SPREADSHEETS** Recap-VLOOKUP, Validation Count A, Count Blank SumIF Scenarios based tasks
SPREADSHEETS Spreadsheets uses & Arithmetic formulas MIN, MAX, AVERAGE functions Graphical Representation Conditional Formatting & operators Count IF	**PROGRAMMING PYHON** Print function & basic debugging Input Statements & Concatenation Data Types & Boolean Expression IF Statements	**SYSTEMS ARCHITECTURE** Inside the Hood - PC dismantling CPU Performance – RAM & ROM The CPU & FDE Cycle Storage Devices
PROGRAMMING Python Understand what Python programming is Write & run simple Python programs. Display messages using print() Use variables to store information Ask users questions using input()	**DATA REP** Binary Addition What is Hex Binary to Hex, Hex to Binary Basic Logic circuit – AND, OR, NOT	**SORTS, SEARCHES & DATA REP** Sorting Data Insertion, Bubble & Merge sort Linear & Binary search Storing images & sound Logic Circuits & Truth Table

SPREADSHEETS Basic +/-* Arithmetic SUM, MIN, MAX AVERAGE function Spreadsheet Formatting Graphical Representation	**SYSTEMS ARCHITECTURE** PC components Hardware & Software Input & Output Devices	**AI, Images & Sound** Identify misinformation & use credible sources Use of AI for learning AI-generated information accuracy Use AI safely and responsibly Image-representation (pixels & binary) Sound-analogue to digital
Artificial Intelligence What is AI? Identify examples of AI in everyday life Use AI to support learning, research & problem-solving	**Artificial Itelligence** Recognise harmful, misleading or fake AI-generated content Understand the risks and limitations of using AI	**Ethics, Legislation, Use of AI** DPA, CMA, Copyright, Health & Safety, Internet Of Things
KEY: Digital Literacy, Information Technology, Computer Science		