

Year 7 Computing and IT Curriculum Plan

Year 7			
#	Topic	Description	Learning Aims
01	Introduction to Computing <i>Logging in, Teams and OneDrive</i>	Logging in, Teams and OneDrive	1. Know what computer science and digital skills are 2. Log in to school computers and pick a strong password 3. Find your classwork and assignments on Teams 4. Create folders in OneDrive to keep your files organised
02	Digital Skills <i>Application software · Presentations · Email · Word processing · Canva book cover</i>	Application software · Presentations · Email · Word processing · Canva book cover	1. Name six types of application software and what they are used for 2. Choose the right application for a task and explain why 3. Research a topic and create a clear presentation in PowerPoint 4. Explain how email works and write professional school emails 5. Format a Word document using fonts, headings and keyboard shortcuts 6. Use Canva to redesign a book cover with strong typography and layout
03	Bebras Computational Thinking Challenge <i>Annual national computational thinking competition</i>	Annual national computational thinking competition	1. Use logical thinking to solve Bebras challenge problems 2. Work independently under timed conditions 3. Show computational thinking skills such as breaking problems into smaller steps
04	Animation — Pixel Art <i>Frame-by-frame animation and storyboarding</i>	Frame-by-frame animation and storyboarding	1. Plan your animation using a storyboard 2. Create a frame-by-frame pixel art animation 3. Evaluate your animation — what went well and what to improve
05	Scratch Programming <i>Block-based coding — chase game project</i>	Block-based coding — chase game project	1. Find your way around Scratch and understand the key terms 2. Write a script to move a sprite with the arrow keys 3. Add a backdrop, sprites and a score variable 4. Build and improve a playable chase game
06	How Computers Work <i>Hardware, the CPU and the IPOS model</i>	Hardware, the CPU and the IPOS model	1. Define a computer using Input, Process, Output and Storage 2. Explain what peripheral devices do 3. Know that computers use binary (0s and 1s) to store and process data
07	Binary & Data <i>Binary numbers, data sizes and ASCII</i>	Binary numbers, data sizes and ASCII	1. Know what binary is and name common data sizes 2. Convert between binary and denary numbers 3. Explain how ASCII turns characters into binary codes 4. Decode a binary message
08	Python — Adventure Game <i>"Quest for the Crystal" text-based adventure</i>	"Quest for the Crystal" text-based adventure	1. Display output on screen using print() 2. Store and update information using variables 3. Get input from the user with input() 4. Use if statements to make your program make decisions 5. Use functions to organise your code into blocks 6. Use loops to repeat code without rewriting it 7. Add comments to explain your code
09	Wildlife Project <i>Spreadsheets · Data science · Endangered animals presentation</i>	Spreadsheets · Data science · Endangered animals presentation	1. Enter and format data in an Excel spreadsheet 2. Use formulas and SUM to calculate totals, and create charts from your data 3. Explain what data science is and how it is used in real life 4. Analyse a dataset and spot patterns and trends 5. Describe how technology helps to protect endangered wildlife 6. Research an endangered animal and create a presentation to share your findings