The Vyne Community School- Curriculum Map

Subject: KS3 Computing/KS4 Computer Science

Half term	Year 7	Year 8	Year 9	Year 10	Year 11
HT1	Using computers safely, effectively and responsibly *What makes someone a safe, effective and responsible computer user?* **Checkpoint:** Baseline + practical routines	Computational Thinking *How can we make difficult problems easier to solve?* **Checkpoint:** Computational Thinking	Spreadsheets & Programming Revisited *When should we use a spreadsheet and when should we write a program?* **Checkpoint:** Applied automation	**1.1 Systems architecture** **Python Programming**	**2.1 Algorithms** **2.2 Programming fundamentals**
HT2	Staying Safe Online *Who is responsible for keeping us safe online?* **Assessment:** Digital Responsibility & Online Safety	My Digital World *How does our digital world shape the way we live and communicate?* **Assessment:** Computational Thinking & My Digital World	Foundations of AI Programming Pt. 1 *How can computational thinking help us design programs that solve problems efficiently?* **Checkpoint:** AI problem solving	**1.2 Memory and storage** **Python Programming**	**2.3 Producing robust programs** **Python Programming Project**
HT3	Microbit - Block programming *How can code make a physical device respond to the world?* **Checkpoint:** micro:bit programming	Introducing Spreadsheets *How can data help us make better decisions?* **Checkpoint:** Spreadsheet modelling	Algorithms & Flowcharts *Can every problem be turned into a precise set of instructions?* **Checkpoint:** Algorithm & flowchart	**1.3 Computer networks, connections and Protocols** **Python Programming**	**2.4 Boolean logic** **Python Programming Project**
HT4	Logic Gates & Robotics *How can simple logic control a robot?* **Assessment:** Programming, Logic & Robotics	Binary and computer logic *How can computers represent information and make decisions using only two states?* **Assessment:** Binary & Logic	Data Representation *How can computers represent complex information using only 0s and 1s?* **Assessment:** Algorithms & Data Representation	**1.4 Network security** **Python Programming**	**2.5 Programming languages and Integrated Development Environments**
HT5	Programming in Scratch Pt. 1 *How do we turn an idea into a working program?* **Checkpoint:** Scratch programming	Thinking Critically About AI *When should we trust artificial intelligence?* **Checkpoint:** AI evaluation	Foundations of AI Programming PT.2 *How can computational thinking help us design programs that solve problems efficiently?* **Checkpoint:** AI problem solving	**1.5 Systems software** **Python Programming**	
HT6	Programming in Scratch Pt. 2 *What makes a program reliable, efficient and easy to improve?* **Assessment:** Scratch project + code explanation	An Introduction to Python *How can text-based code turn user input into useful decisions and outputs?* **Assessment:** Python Programming & Problem Solving	Problem Solving with AI *When is AI the best tool for solving a problem?* **Assessment:** AI Programming	**1.6 Ethical, legal, cultural and environmental impacts of digital technology** **Python Programming**	

* Please merge and split cells to fit our delivery time

** Hyperlink your schemes of work to each year group or topic (SoW should have tier 3 word and careers links).