KS3 Computer Science

	Content
Year 7 HT 1	**Clear messaging in digital media:** Combining the use of digital tools and online collaboration to produce media.
Year 7 HT 2	**Clear messaging in digital media(cont0** **Networks: from semaphores to the Internet:** Recognising networking hardware and explaining how networking components are used for communication
Year 7 HT 3	**Networks: from semaphores to the Internet (cont)** **Impact of Technology:** Understand how individuals, systems, and society as a whole interact with computer systems
Year 7 HT 4	**Impact of Technology (cont)** **Modelling Data** : Sorting and filtering data and using formulas and functions in spreadsheet software.
Year 7 HT 5	**Modelling Data (cont)** **Programming essentials in Scratch – part I** Applying the programming constructs of sequence, selection, and iteration in Scratch.
Year 7 HT 6	**Programming essentials in Scratch – part I/2 (cont)** Using subroutines to decompose a problem that incorporates lists in Scratch.
Year 8 HT 1	**Layers of computing systems:** Exploring the fundamental elements that make up a computer system
Year 8 HT 2	**Intro to Python programming:** Applying the programming constructs of sequence, selection, and iteration in Python
Year 8 HT 3	**Databases science:** Using data to investigate problems and make real-world changes
Year 8 HT 4 Year 8 HT 5	**Mobile app development (project):** In a world where there's an app for every possible need, this unit aims to take the learners from designer to project manager to developer in order to create their own mobile app. Using App Lab from code.org, learners will familiarise themselves with the coding environment and have an opportunity to build on the programming concepts they used in previous units before undertaking their project. Learners will work in pairs to consider the needs of the user; decompose the project into smaller, more manageable parts; use the pair programming approach to develop their app together; and finish off by evaluating the success of the project against the needs of the user.
Year 8 HT 5	**Online safety:** Identifying how users and organisations can protect themselves from cyberattacks.

	Content
Year 9 HT 1	**IT and the world of work:** Examine modern technology tools that assist with inclusivity and accessibility. Evaluate effective online communication and collaboration. Create a positive work environment for remote working.
Year 9 HT 2	**Python programming with sequences of data:** Manipulating strings and lists. Creating a programming project.
Year 9 HT 3	**Spreadsheets:** Use functions, formulas, and formatting in a spreadsheet. Develop a spreadsheet for a given scenario.
Year 9 HT 4	**AI:** Develop awareness of emerging AI topics and the use of this to create a project informing others of the positives and threats
Year 9 HT 5	**Impacts of technology:** Determine the ethical, legal, environmental, and cultural impacts of technology.
Year 9 HT 6	**Options choice unit:** An option for ICT skills on the core tools used across ks4 subjects from spreadsheet skills to DTP, or an introduction to problem solving with Python and basic game creation!