Year	Autumn	Spring	Summer
7	**E-Safety** including cyber bullying and digital footprints. **Office Skills** including email, Teams and online systems use.	**E-Safety** including cyber bullying and digital footprints. **Introduction to Computer Systems** including hardware, software, storage devices, networks and network security.	**E-Safety** including cyber bullying and digital footprints. **Photoshop**, looking at image manipulation in the media and using skills learnt to create an image based on a given scenario. **Scratch**, a block-based visual programming language where students learn coding concepts and develop a game based around the classic PONG theme.
8	**E-Safety** including body image and social media. **Intermediate Computer Systems** including binary, sorting algorithms, network topologies, computer logic and data representation.	**E-Safety** including body image and social media. **Vector Graphics** including digital graphic properties, branding and image editing skills.	**E-Safety** including body image and social media. **GameMaker**, a high-level visual programming language where students learn coding concepts, basic scripting and develop a maze game of their own theme, similar to that of PAC MAN.

		Cyber Security, discovery of techniques that cybercriminals use to steal data, disrupt systems, and infiltrate networks.	
9	**E-Safety** including grooming, inappropriate content and messaging. **Python** including sequence, selection, iteration and string manipulation.	**E-Safety** including grooming, inappropriate content and messaging. **Interactive Multimedia Products**, students design and create a product for a given scenario, including video, sound, and animation. **Photoshop**, looking at image manipulation in the media and using skills learnt to create an image based on a given scenario.	**E-Safety** including grooming, inappropriate content and messaging. **Digital Literacy Skills,** students will be empowered with knowledge and skills to enable them to be exceptional digital citizens of today's digital world.
10	**Systems architecture** including the CPU, its purpose and how it impacts performance, Von Neumann Architecture and embedded systems. **Memory and storage** including primary, secondary, units, data representation and compression.	**Programming fundamentals** including sequence, selection, iteration and string manipulation. **Computer networks**, connections and protocols including types of factors effecting the performance of, hardware required for networks. Also, network topologies and methods of connection.	**Ethical, legal, cultural & environmental impacts of Digital Technology**. **Programming fundamentals** including sequence, selection, iteration and string manipulation.

		Network security including threats to computer systems and how to protect against vulnerabilities. **Systems software** including both operating, application and utility software.	
11	**Programming fundamentals** including sequence, selection, iteration and string manipulation. **Additional programming techniques** including records to store data, SQL, arrays and subprograms. **Producing robust programs** including defensive design and testing. **Boolean logic** including common arithmetic operators. **Programming languages and Integrated Development Environments** including characteristics of purpose of and facilities available in.	**Component 1** and **component 2** revision.	**Component 1** and **component 2** revision.

Curriculum Overview – Computer Science- Shotton Hall.