

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. Cyber Security, discovery of techniques that cybercriminals use to steal data, disrupt systems, and infiltrate networks.	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.

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. Network security including threats to computer systems and how to protect against vulnerabilities. Systems software including both operating, application and utility software.	Ethical, legal, cultural & environmental impacts of Digital Technology. Programming fundamentals including sequence, selection, iteration and string manipulation.

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.
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Curriculum Overview – Computer Science- Shotton Hall.