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	• **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.

		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.	• **Ethical, legal, cultural & environmental impacts of digital technology**. • **Programming fundamentals** including sequence, selection, iteration and string manipulation.

		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.	
11	**Component 1 revision** • System architecture • Memory and storage • Computer networks • Network security • Ethical, legal, cultural and environmental impacts of digital technology.	**Component 2 revision** • Programming fundamentals • Algorithms • Boolean logic • Defensive design • Programming languages and use of Integrated Development Environments.	**Component 1 and 2 revision**
12	• **Python programming skills** which form a foundation for the subject. • **The characteristics of contemporary processors, input,**	• **Exchanging data** including databases, networks, and web technologies.	• **Legal, moral, cultural, and ethical issues** including computing related legislation and moral and ethical issues.

	output and storage devices including the structure and function of the processor, types of processors and input, output and storage. • **Software and software development** including systems software, applications generation, software development and types of programming language.	• **Data types, data structures and algorithms including** binary arithmetic, data structures and Boolean algebra.	• **Non examined assessment programming project** – Individual student project.
13	• **Elements of computational thinking** including thinking abstractly, thinking procedurally and thinking logically. • **Problem solving and programming** including programming techniques and computational methods. • **Non examined assessment programming project -** Individual student project.	• **Algorithms** including the use of algorithms to describe problems and standard algorithms. • **Non examined assessment programming project -** Individual student project.	• **Component 1 Revision** • **Component 2 Revision**

Curriculum Overview – Computer Science- Hermitage.