Year 7 Computer Science	Autumn Term (Cycle 1)	Spring Term (Cycle 2)	Summer Term (Cycle 3)
Students will know and remember...	**Understanding computer systems:** SMHW, Class Charts, Google Classroom and Microsoft programmes. **Password security:** The importance of being safe online and how to protect yourselves from online attacks. **Impact of Technology:** How to use presentation skills to present on cyberbullying and its impact.	**Programming and sequencing essentials:** How to compare, define, predict, and modify sequences. How to trace and sequence variables. How to predict outcomes, create conditions and use logic operators. How to use count-controlled iteration.	**Networks:** Networks, the internet, and associated technology Transmission Control Protocol, Internet Protocol, World Wide Web, WWW, internet services and email Voice over Internet Protocol (VoIP), Internet of Things (IoT), HTTPS, URL, domain name, domain name system. **Spreadsheets:** How to use basic formulas in spreadsheets How to analyse data How to use the functions AVERAGE and COUNTIF and IF in a spreadsheet.
So that they can...	**Understanding computer systems:** Understand and apply the college usage policies and utilise the systems to access and create resources **Password security:** Apply knowledge learned to create a safe and secure password and remain vigilant when online at home and at school **Impact of Technology:** Understand and apply their knowledge of computer systems to create their own presentation, considering their target audience, online licensing laws and the topic of cyberbullying	**Programming and sequencing essentials:** Compare how humans and computers understand instructions. Make sequences that include variables. Define a condition as an expression that will be evaluated as either true or false. Detect and correct errors in a program. Independently design and apply programming constructs to solve a problem.	**Networks:** Define what a computer network is and explain how data is transmitted between computers across networks. Explore the functionality of key hardware components found in a network. Compare wired to wireless connections and define bandwidth and how it varies between the different technologies. Describe components of the World Wide Web and explore how they work together. **Spreadsheets:** Identify columns and cell

			references in spreadsheet software.
			Perform calculations in a spreadsheet.
			Explain the differences between primary and secondary sources of data.
			Use a spreadsheet to sort and filter data.