Topic: 8.2 Computer Systems		Duration: 6 weeks	Composite: EoU Test
Key vocabulary:	**Core knowledge questions**	**Powerful knowledge crucial to commit to long term memory**	**Links to previous and future topics**
Input Process Output Fetch Decode Execute Component Storage Memory RAM ROM CPU HDD Binary Bit Byte	1. What is a computer system? A computer system is any device that can take an input, process it, and output the result 2. What is hardware? Hardware is the term given to a component that can be physically touched 3. What is software? Software is the program or application that can be used to control the hardware in a computer system. 4. What is the role of the CPU? The CPU is the most fundamental component within the computer system. It is used to process and control all data input into the system. 5. What is the main function of the CPU? To run an endless fetch, decode and execute cycle to process instructions. 6. How does the fetch decode execute cycle work? It works by retrieving an instruction from memory, decoding it to understand what is required from the instruction and then processing or enacting on that instruction. 7. What is binary? Binary is a number system which represents states of "On" (1) or "Off" (0) 8. What is ASCII? ASCII stands for American Standard Code of Information Interchange. It is the standard for how characters and data are represented on a computer. 9. What is storage? Storage is how computers store data and programs so that they can be retrieved at a later date. 10. What is memory? Memory is where data is stored temporarily so that it can be accessed and interacted with more quickly than storage.	• A computer system is any device that can take an input, process it, and output the result • Hardware is the term given to a component that can be physically touched • Software is the program or application that can be used to control the hardware in a computer system • The CPU is the most fundamental component within the computer system. It is used to process and control all data input into the system. • The FDE cycle works by retrieving an instruction from memory, decoding it to understand what is required from the instruction and then processing or enacting on that instruction. • Storage is how computers store data and programs so that they can be retrieved at a later date. • Memory is where data is stored temporarily so that it can be accessed and interacted with more quickly than storage	• Builds on foundations of how the computer system works and operates. • Links to programming units • Revisited from Year 7.

We will develop these skills:

Impressive reading	Impressive speaking	Impressive writing	Resilience	Numeracy via:	Digital Literacy via:	Employability via:
Read and research the function and purpose of ASCII / Unicode	Explain the differences between ASCII and Unicode	Explain the role of the CPU in the computer system	Developing ability to consistently amend and refine work. Learning how to quickly interpret binary calculations	Calculating storage size and rotations per second in GHz	Understanding how a computer system works and process data. Developing awareness of the technology students use.	Links to how digital technology is made and works