

Year 9 - CYCLE 3 • Computer Science • Systems Architecture / Memory & Storage

Name:					Class:		
Target Grade:		End of cycle grade:	SAE	AE	E	BE	SBE

KEYWORDS			Unit Description
Fetch	Execute	Cache Size	<p><i>In this unit you will learn about: The purpose of the CPU, The Von Neumann architecture, Common CPU components and their function, How common characteristics of CPUs affect their performance & Embedded systems</i></p> <p><i>In addition you will learn about: The purpose of Memory: What is meant by RAM, Virtual Memory & ROM. You will also look at various storage devices and in what situation is best to use each type.</i></p>
von Neumann architecture	Clock Speed	CPU Components	
	Gigahertz	Megahertz	
Embedded Systems	Insert Sort	Merge Sort	
Merge Sort	Linear Sort	Bubble Sort	

Systems Architecture		✓	Memory/ Storage	✓
7-9	Know several examples of embedded systems.		Explain when & why virtual memory might be needed.	
	Explain what the von Neumann architecture is and how it works		Explain the suitability of storage devices for given applications. Explain the advantages and disadvantages of devices based on their characteristics.	
6	Know what factors affect the speed of a CPU.		Understand the purpose of flash memory	
	Know the stages of the fetch, execute cycle.		Understand the need for virtual memory.	
	Know what is meant by the term: 'embedded system'		Understand the need for secondary storage.	
	Know what the registers in a CPU are.		Know what data capacity means.	
5	Use LMC and understand		Know the characteristics of storage devices.	
	Know the components of a CPU.		Know the difference between RAM and ROM.	
	Understand what the CPU of a computer does.		Know the purpose of ROM in a computer system.	
			Know the purpose of RAM in a computer system.	