



<p style="text-align: center;">DE LA SALLE SCHOOL ST HELENS YEAR 9 – COMPUTING: SECTION 4 THE COMPUTER Half Term 5/Half Term 6</p>		
<p>This half term I am learning: (Theory)</p> <p>Culture</p> <ul style="list-style-type: none"> Name the components of a computer system Describe the function of different types of memory (RAM, ROM, cache) Describe the differences and uses of an assembler, compiler and interpreter <p>Techniques / Technology</p> <ul style="list-style-type: none"> Draw a diagram showing the components of a computer system and how they work together List some functions of an operating system List some items of utility software and state their purpose Give examples of high-level and low-level languages <p>By the end of this half term I will: (Theory)</p> <p>Culture</p> <ul style="list-style-type: none"> Describe the role of the components of the CPU Explain the concept of the stored program computer Describe the steps in the fetch-decode-execute cycle Explain the concept of storing data in the “cloud” Explain the need for embedded systems and their functions Describe the functions of an operating system Describe the suitability of a high-level or low-level programming language for a particular task Describe the purpose and function of security and file management utility software Describe how software can be used to simulate and model aspects of the real world Describe the advantages and disadvantages of a compiler and an interpreter <p>PRACTICAL OUTCOME.</p> <ul style="list-style-type: none"> Construct truth tables for a given logic statement (AND, OR, NOT) Produce logic statements for simple problems 		<p>Key Terms I will learn this half term:</p> <ul style="list-style-type: none"> Input-Process-Output Model CPU Main Memory RAM ROM Cache Control Unit (CU) Arithmetic/Logic Unit (ALU) Register Clock Address Bus Data Bus Control Bus Von Neumann Model Stored Program Concept Magnetic, Optical And Solid State Storage Device Embedded System Truth Table Logic Statement Operating System User Interface Utility Software Compression Defragmentation Anti-Virus Anti-Spyware Simulation Software High-Level Language Low-Level Language Assembler Compiler Interpreter
Learning Outcomes	Literacy Focus	Homework
<p>HT5 week 1 – I will be able to:</p> <ul style="list-style-type: none"> Understand the input-process-output model Understand the function of the hardware components of a computer system (CPU, main memory, secondary storage, input and output devices) and how they work together 	<p>Spelling/ Quality of written answers</p>	<ul style="list-style-type: none"> Cache Memory exam style questions

<ul style="list-style-type: none"> Understand the function of different types of main memory (RAM, ROM, cache) <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to produce, label and explain the fetch-execute-decode model I will be able to label and explain how data travels through the computer 		
<p>HT5 week 2 – I will be able to:</p> <ul style="list-style-type: none"> Understand the concept of a stored program Understand the role of the CPU components in the fetch-decode-execute cycle: <ul style="list-style-type: none"> Control Unit (CU) Arithmetic/logic unit (ALU) registers clock address bus, data bus, control bus <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to develop the models created from week 1 with additional knowledge I have gained on the purpose of the COU, its role and the what affects the performance of the CPU. 	Spelling, quality of written response.	
<p>HT5 week 3 – I will be able to:</p> <ul style="list-style-type: none"> Understand how data is stored on physical devices (solid state, optical, magnetic) Understand the concept of storing data in the “cloud” and other contemporary secondary storage <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able identify and explain the different storage devices available and their uses as well as the pros and cons of each device 	Spelling, quality of written response.	<ul style="list-style-type: none"> Storage Devices
<p>HT5 week 4 – I will be able to:</p> <ul style="list-style-type: none"> Construct truth tables for the following logic gates: <ul style="list-style-type: none"> NOT AND OR Construct truth tables for a given logic statement Produce logic statements for a given problem <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to independently be able to construct a truth table for a variety of given scenarios 	Spelling, quality of written response.	<ul style="list-style-type: none"> Boolean Logic
<p>HT5 week 5– I will be able to:</p> <ul style="list-style-type: none"> Know what an operating system is and how it manages files, processes, hardware and the user interface Understand the need for embedded systems and their functions. 	Spelling, quality of written response.	<ul style="list-style-type: none"> Operating Systems

Outcomes: <ul style="list-style-type: none"> • I will be able to explain the different types of operating systems available and highlight the pros and cons of all. • I will be able to explain the features included within an Operating System 		
HT6 week 1 – I will be able to: <ul style="list-style-type: none"> • Understand the purpose and functions of utility software (managing, repairing and converting files; compression; defragmentation; backing up; anti-virus; anti-spyware) • Understand how software can be used to simulate and model aspects of the real world Outcomes: <ul style="list-style-type: none"> • I will be able to explain in detail the need for utility Software • I will be able to explain the features of utility Software 	Spelling, quality of written response	<ul style="list-style-type: none"> • Revision for assessment
HT6 week 2: The Computer – End of unit Assessment		

<p style="text-align: center;">DE LA SALLE SCHOOL ST HELENS YEAR 10 – COMPUTING: THE COMPUTER Half Term 5/Half Term 6</p>		
<p>This half term I am learning: (Theory)</p> <p>Culture</p> <ul style="list-style-type: none"> Name the components of a computer system Describe the function of different types of memory (RAM, ROM, cache) Describe the differences and uses of an assembler, compiler and interpreter <p>Techniques / Technology</p> <ul style="list-style-type: none"> Draw a diagram showing the components of a computer system and how they work together List some functions of an operating system List some items of utility software and state their purpose Give examples of high-level and low-level languages <p>By the end of this half term I will: (Theory)</p> <p>Culture</p> <ul style="list-style-type: none"> Describe the role of the components of the CPU Explain the concept of the stored program computer Describe the steps in the fetch-decode-execute cycle Explain the concept of storing data in the “cloud” Explain the need for embedded systems and their functions Describe the functions of an operating system Describe the suitability of a high-level or low-level programming language for a particular task Describe the purpose and function of security and file management utility software Describe how software can be used to simulate and model aspects of the real world Describe the advantages and disadvantages of a compiler and an interpreter <p>PRACTICAL OUTCOME</p> <ul style="list-style-type: none"> Construct truth tables for a given logic statement (AND, OR, NOT) Produce logic statements for simple problems 		<p>Key Terms I will learn this half term:</p> <ul style="list-style-type: none"> Input-Process-Output Model CPU Main Memory RAM ROM Cache Control Unit (CU) Arithmetic/Logic Unit (ALU) Register Clock Address Bus Data Bus Control Bus Von Neumann Model Stored Program Concept Magnetic, Optical And Solid State Storage Device Embedded System Truth Table Logic Statement Operating System User Interface Utility Software Compression Defragmentation Anti-Virus Anti-Spyware Simulation Software High-Level Language Low-Level Language Assembler Compiler Interpreter
Learning Outcomes	Literacy Focus	Homework
<p>HT5 week 1 – I will be able to:</p> <ul style="list-style-type: none"> Understand the input-process-output model Understand the function of the hardware components of a computer system (CPU, main memory, secondary storage, input and output devices) and how they work together 	<p>Spelling/ Quality of written answers</p>	<ul style="list-style-type: none"> Cache Memory exam style questions

<ul style="list-style-type: none"> Understand the function of different types of main memory (RAM, ROM, cache) <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to produce, label and explain the fetch-execute-decode model I will be able to label and explain how data travels through the computer 		
<p>HT5 week 2 – I will be able to:</p> <ul style="list-style-type: none"> Understand the concept of a stored program Understand the role of the CPU components in the fetch-decode-execute cycle: <ul style="list-style-type: none"> Control Unit (CU) Arithmetic/logic unit (ALU) registers clock address bus, data bus, control bus <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to develop the models created from week 1 with additional knowledge I have gained on the purpose of the COU, its role and the what affects the performance of the CPU 	Spelling, quality of written response.	
<p>HT5 week 3 – I will be able to:</p> <ul style="list-style-type: none"> Understand how data is stored on physical devices (solid state, optical, magnetic) Understand the concept of storing data in the “cloud” and other contemporary secondary storage <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able identify and explain the different storage devices available and their uses as well as the pros and cons of each device 	Spelling, quality of written response.	<ul style="list-style-type: none"> Storage Devices
<p>HT5 week 4 – I will be able to:</p> <ul style="list-style-type: none"> Construct truth tables for the following logic gates: NOT AND OR Construct truth tables for a given logic statement Produce logic statements for a given problem <p>Outcomes:</p> <ul style="list-style-type: none"> I will be able to independently be able to construct a truth table for a variety of given scenarios 	Spelling, quality of written response.	<ul style="list-style-type: none"> Boolean Logic
<p>HT5 week 5– I will be able to:</p> <ul style="list-style-type: none"> Know what an operating system is and how it manages files, processes, hardware and the user interface Understand the need for embedded systems and their functions <p>Outcomes:</p>	Spelling, quality of written response.	<ul style="list-style-type: none"> Operating Systems

<ul style="list-style-type: none"> • I will be able to explain the different types of operating systems available and highlight the pros and cons of all • I will be able to explain the features included within an Operating System 		
<p>HT6 week 1 – I will be able to:</p> <ul style="list-style-type: none"> • Understand the purpose and functions of utility software (managing, repairing and converting files; compression; defragmentation; backing up; anti-virus; anti-spyware) • Understand how software can be used to simulate and model aspects of the real world <p>Outcomes:</p> <ul style="list-style-type: none"> • I will be able to explain in detail the need for utility software • I will be able to explain the features of utility software 	Spelling, quality of written response	<ul style="list-style-type: none"> • Revision for assessment
<p>HT6 week 2: The Computer – End of unit assessment</p>		