

Computing KS3 Curriculum Intent, Implementation and Impact Overview

Year: 8 Subject: Computing IMPLEMENTATION							
National Curriculum Coverage, key concepts and skills ('Big Ideas')	Half Term 1 - Unit 4 Context: Algorithms- Flowol, Binary to Denary  Key Vocabulary: Binary, Denary, 8 Bit, Nibble, Bit, Byte, On_Off, Base 10, Base 2, Input_Output, Process, Decision, Terminator  Prior Learning/LTM: KS2 & Y7 I.T  Cultural Capital: Understand that all digital devices consist of logic circuits which use binary to operate.  Links to Numeracy Addition, denary and binary	Half Term 2 Unit 4 Context: Input, Output, Storage, CPU, RAM, PC specification  Key Vocabulary: Hardware, input, output, process, CPU, binary, logic, memory, storage  Prior Learning/LTM: KS2 & KS3 I.T  Cultural Capital: Understand how all computer systems around us such as Traffics lights are made up of input processes and output  Links to Numeracy Addition, division, Subtraction- Working out memory amounts.	Half Term 3 - Unit 5 Context: I.T in Business.  Key Vocabulary: Income, Business, Profit, Point of Sale, Enterprise, Sole Trader, Goals, SMART Targets,  Prior Learning/LTM: Homework  Cultural Capital: Understand how computer systems are used to increase market share, profit, improve processes.  Numeracy Links Logical, operators & maths skills to solve a problem	Half Term 4 - Unit 5 Context: Python  Key Vocabulary: Sequence, Selection, Iteration, algorithm, pseudocode, syntax, Debug, IDE, Variable, Input. Output, Print,  Prior Learning/LTM: KS3 Y7 I.T  Cultural Capital: Alan Turing - Enigma machine Bill Gates Larry Page  Numeracy Links Logical, operators & maths skills to solve a problem	Half Term 5 - Unit 6 Context: Planning Audio  Key Vocabulary: Sound sequence, Client Brief, Assets, Client Requirements, Target Audience, File Formats, Quality of sound,  Prior Learning/LTM: Homework  Cultural Capital: Understand how digital audio is used for a wide variety of purposes to inform, educate, entertain, promote.  Numeracy Links Samples sizes	Half Term 6 - Unit 6 Context: Creating Audio  Key Vocabulary: Sound sequence, Client Brief, Assets, Client Requirements, Target Audience, File Formats, Quality of sound,  Prior Learning/LTM: HT5 Planning audio  Cultural Capital: Understand how digital audio is used for a wide variety of purposes to inform, educate, entertain, promote.  Numeracy Links Bit, bytes and units of storage	
	Design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems	x					
	Understand several key algorithms that reflect computational thinking	x			X		
	Use two or more programming languages, at least one of which is textual				X		
	Understand simple Boolean logic and some of its uses in circuits and programming	x					
	Understand the hardware and software components that make up computer systems		x				
	Understand how instructions are stored and executed within a computer system	x	x				
	Understand how data of various types can be represented and manipulated digitally			x			
	Undertake creative projects that involve selecting, using, and combining multiple applications.			x			
	Create, re-use, revise and re-purpose digital artefacts for a given audience.					x	x
Understand a range of ways to use technology safely, respectfully, responsibly and securely.							

<p style="text-align: center;"><b>IMPACT</b></p>	<p><b>HT1</b>  <b>Assessment: Mini</b>  <b>Key Piece 1:</b> Flowol  <b>Assessment 2: Main</b>  Binary assessment  <b>Progression to KS4:</b>  Data representation GCSE  Computing, Programming  Constructions</p>	<p><b>HT2</b>  <b>Assessment: Mini</b>  <b>Key Piece 1:</b>  Input,Output,storage  <b>Assessment 2: Main</b>  Computing Spec task  <b>Progression to KS4:</b>  <b>Computer hardware GCSE</b></p>	<p><b>HT3</b>  <b>Assessment: Main</b>  <b>Key Piece 1:</b> I.T in Business  <b>Assessment 2: Mini</b>  I.t in Business  <b>Progression to KS4:</b>  GCSE Business- Understand  how technology is used in  business.</p>	<p><b>HT4</b>  <b>Assessment: MINI</b>  <b>Key Piece 1:</b> Python  assessment  <b>Assessment 2: Main</b>  Python assessment  <b>Progression to KS4:</b>  Creative - I Media - Creating a  Digital Sound Sequence RO88</p>	<p><b>HT5</b>  <b>Assessment: MINI</b>  <b>Key Piece 1:</b> Planning an  <b>Audio</b>  <b>Assessment 2: Mini</b>  Creating Audio  <b>Progression to KS4:</b>  Creative - I Media - Creating a  Digital Sound Sequence RO88</p>	<p><b>HT6</b>  <b>Assessment: Main</b>  <b>Key Piece 1:</b> Evaluation of  Audio  <b>Assessment 2: Mini</b>  ICT is all around us  <b>Progression to KS4:</b>  Creative - I Media - Creating a  Digital Sound Sequence RO88</p>
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