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| **Subject: GCSE ICT: Creative iMedia OCR Cambridge Nationals** | **Year Group: 9** |
| **Autumn 1 – Curriculum Plan** | **Homework Plan** |
| **R081:Preproduction Skills**  **LO1: Understand the purpose and content of pre-production**  Introduction- Course overview  1.1 Understand the purpose and uses for moodboards  1.2 Create a moodboard  1.3 Understand the purpose and uses for mind maps/spider diagrams  1.4 Create a mind map/spider diagram  1.5 Understand the purpose and uses for visualisation diagrams  1.6 Create visualisation diagrams  1.7 Understand the purpose and uses for storyboards  1.8 Create a storyboard  1.9 Understand the purpose and uses for scripts  1.10 Create a script | Embed  Complete Learning Mat |
| Apply   * Create a mood board for a billboard advert for a new action movie * Create a mindmap for a given scenario * Create a visualisation of the Homepage of a trainer’s company * Produce all the preproduction documents needed for a new video game |
| Challenge/Interleaving  Complete Exam Questions |
| Improve/Go Green  Based on the feedback you have received from Exam Questions, perform the following tasks:   * Do you analysis on weaknesses * Redo questions that were not completed to gain full marks * Write revision notes with a green pen |
| **Autumn 1 Assessment: End of Unit Assessment** | |

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| **Subject: Computer Science OCR GCSE Computer Science** | **Year Group: 9** |
| **Autumn 1 – Curriculum Plan** | **Homework Plan** |
| **Theory: Computer System Architecture**   1. Course Overview & What is a Computer System? 2. Components and Purpose of a Computer System 3. Explain and describe Von Neumann Architecture & Fetch Execute Cycle 4. Explain the Common Characteristics & Performance of a Computer System 5. Identify and Explain what is Embedded Systems   **Programming : Scratch**   1. Introduction Flowchart planning- Planning Pacman Game - Flowcharts 2. Writing input and output statements- Programming simple Controls, Score Health Labels 3. The 3 Programming Constructs- Iteration(Loops) 4. Variables- How to create a variable to store Scores 5. Selection (Conditionals)- Win/Lose conditions 6. Evaluation of Project- Consolidation of evidence | Embed   * Extended Writing homework with writing frame * Watch the video below   <https://www.youtube.com/watch?v=PrSD8tpoSz0>  Then study the Apollo 11 Hardware and write a report discussing how the technology has changed over the last 40-50 years. |
| Apply  Program and produce a report on Pacman Game |
| Challenge/Interleaving   * OCR MCQ on Computer Architecture * Doodle Quiz on computer Architecture |
| Improve/Go Green  Go green on Extended writing essay  Based on the feedback you have received from your Extended writing essay, rewrite the essay again |
| **Autumn 1 Assessment: End of Unit Assessment on Computer Architecture** | |

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| **Subject: GCSE Computer Science** | **Year Group: 10** |
| **Autumn 1 – Curriculum Plan** | **Homework Plan** |
| **Component 2**  **Theory**  **2.1 Algorithms**   1. Intro & Expectations-Course Overview. 2. Computational Thinking skills- Decomposition, Abstraction, pattern match, Algorithms 3. Algorithms- Introduction to Algorithms 4. Standard searching algorithms  * Binary search * Linear search  1. Standard sorting algorithm  * Bubble sort * Merge sort * Insertion sort   **Programming**  **2.1 Algorithms**   1. Algorithms-Flowcharts Symbols 2. Algorithms - Pseudocode-OCR Pseudocode Guide 3. Algorithms - Input/Output 4. Algorithms- Selection 5. Algorithms- Iteration 6. Algorithms- Arrays 7. Algorithms- Sums, Total | Embed  Flip classroom- create presentations on the search and sort algorithms |
| Apply  Algorithm Homework sheets 1-5 |
| Challenge/Interleaving   * OCR MCQ assessments * Revise Computer Architecture * Doodle Quizzes |
| Improve/Go Green  Based on the feedback you have received from your OCR MCQ assessments and End of Unit assessment, perform the following tasks:   * Do you analysis on weaknesses * Redo questions that were not completed to gain full marks * Write revision notes with a green pen |
| **Autumn 1 Assessment:**  End of Unit 2.1 Assessment: | |

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| **Subject: GCSE Computer Science** | **Year Group: 11** |
| **Autumn 1 – Curriculum Plan** | **Homework Plan** |
| **Programming Project 10hrs of 20**  **Introduction of Task 1 hour**  **1. Analysis 3 hours**  1.1 Problem Decomposition- High level plan -break problem into subparts- visual block diagram  1.2 Requirement -Written explanation of what you have been asked to do. What does the system require?  1.3 Justification of Approaches  1.4 Input-Output Diagram  1.5 Success criteria- bullet points of how you are going to solve the problem  **2. Design 2 hours**  2. 1 Detailed plan :  • Flowchart  • Pseudocode  2.2 Test plan  2.3 Data Structure: Variables/Lists to be used Validation of variables  **3. Development and Testing 5 hours**  3.1 Code of different sections-take screenshots of every error, after correction take a screenshot and explain how you solve it  3.2 Validation techniques used-take screenshot to show code used for validation  3.3 Annotated code to show programmed techniques used  **Theory : Component 1**  **1.5 Network Topologies, Protocols & Layers**  1.5.1 Wifi & Ethernet  1.5.2 Star and mesh topologies  1.5.3 Uses of IP & MAC addressing & packet switching  1.5.3 Protocols  1.5.4 Protocols & concept of layers | Embed  Revisiting programming concepts to prepare for Programming Project |
| Apply  Network homework booklet |
| Challenge/Interleaving  OCR MCQ assessments on Networks, Network Security, Software Systems  Doodle Quizzes |
| Improve/Go Green  Feedback Sheet- Choose 3 questions based on areas you need to improved following your End of Year 10 exam  Make revision notes on weak topics using a green pen |
| **Autumn 1 Assessment: Interleaving Component 1 Assessment- with focus on Network and Network Security** | |