Computing: Year 11

Scheme of Learning	Assessments
Half Term One: NEA Preparation **The Overarching Inquiry:** How do we solve a given problem using programming techniques? Review of programming techniques, how to analyse a project brief, design skills, a look at testing products and how to write a good evaluation. **Key concepts:** **CS AO1:** Understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms and data representation. **CS AO2:** Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs. **CS AO3:** Think creatively, innovatively, analytically, logically and critically. **CS AO6:** Apply Mathematical skills relevant to Computer Science.	**Assessment One:** Complete practice NEA project sections - these will be given feedback on how to improve so pupils will be prepared for the NEA project (AO1, AO2, AO3, AO6) These will be split in to 5 separate grades over the half term for: - Section 1: Analysis - Section 2: Design - Section 3: Development - Section 4: Testing - Section 5: Evaluation
Half Term Two: NEA Project **The Overarching Inquiry:** How do we solve a given problem using programming techniques? The pupils will complete a 20 hour independent programming project based on a given brief, provided by the exam board. This project will incorporate skills in 5 sections of Analysis, Design, Development, Testing and Evaluation.	**Assessment One:** Complete NEA project sections will be assessed by the subject teacher based on the exam board mark criteria (AO1, AO2, AO3, AO6) These will be split in to 5 separate grades over the half term for: - Section 1: Analysis

Key concepts: **CS AO1:** Understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms and data representation. **CS AO2:** Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs. **CS AO3:** Think creatively, innovatively, analytically, logically and critically. **CS AO6:** Apply Mathematical skills relevant to Computer Science	▪ Section 2: Design ▪ Section 3: Development ▪ Section 4: Testing ▪ Section 5: Evaluation
Half Term Three: Revision – Exam 1 **The Overarching Inquiry:** What are computer systems? Pupils will recap a range of topics from the exam 1 (Computer Systems) paper. These include systems architecture, memory, storage, networks, system security and software. **Key concepts:** **CS AO4:** Understand the components that make up digital systems, and how they communicate with one another and with other systems. **CS AO5:** Understand the impacts of digital technology to the individual and to wider society.	**Assessment One:** Quizizz test covering various exam 1 topics (AO4, AO5) **Assessment Two:** Mock exam based on past paper questions incorporating all key concepts from exam 1 (AO4, AO5)
Half Term Four: Revision – Exam 2 **The Overarching Inquiry:** What is computational thinking? Pupils will recap a range of topics from the exam 2 (Computational Thinking and Algorithms) paper. These include algorithms, programming	**Assessment one:** Quizizz test covering various exam 2 topics (AO1, AO2, AO3, AO6) **Assessment Two:** Mock exam based on past paper

techniques, how to create robust programs, logic and data representation.

Key concepts:

CS AO1: Understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms and data representation.

CS AO2: Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs.

CS AO3: Think creatively, innovatively, analytically, logically and critically.

CS AO6: Apply Mathematical skills relevant to Computer Science.

questions incorporating all key concepts from exam 2 (AO1, AO2, AO3, AO6)

Half Term Five: Revision – Tailored Topics

The Overarching Inquiry: How do I get a good GCSE in Computer Science?

Pupils will be given topics to revise based on analysis of their mock exam performance. This will incorporate both exam 1 and exam 2 material.

Key concepts:

CS AO1: Understand and apply the fundamental principles and concepts of Computer Science, including abstraction, decomposition, logic, algorithms and data representation.

CS AO2: Analyse problems in computational terms through practical experience of solving such problems, including designing, writing and debugging programs.

CS AO3: Think creatively, innovatively, analytically, logically and critically.

CS AO4: Understand the components that make

Assessment One:

Mock exam based on past paper questions incorporating key concepts from exam 1 and exam 2 (AO1, AO2, AO3, AO4, AO5, AO6)

up digital systems, and how they communicate with one another and with other systems. **CS AO5:** Understand the impacts of digital technology to the individual and to wider society. **CS AO6:** Apply Mathematical skills relevant to Computer Science.	