

Year 11

Subject: Computer Science

Half term	Objectives/ enquiry questions	Content	Skills	Assessment
1 & 2	Logical operations	This topic covers knowledge and understanding of logical operations.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: The use of logical operators in truth tables and to solve problems, including AND, OR, NOT and XOR.	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
1 & 2	Data representation and storage	This topic covers how data is represented and stored by computers.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: Data types, Representation of numbers, representation of Characters, representation of Graphics, Representation of Sound, Storage requirements and Compression	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
1 & 2	Data organisation	This topic covers different data structures and files.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: One and two dimensional arrays, design of file and records.	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
1 & 2	Algorithms and constructs	This topic covers different methods of defining algorithms including text based, pseudo-code and flowcharts.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: Algorithms, sorting, searching, validation and verification.	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
1 & 2	Impact of digital technology on wider society	This topic covers how digital technology impacts how society functions and laws of the industry.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: Impacts of digital technology, legislation and professional standards.	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
3 & 4	Component 2 Investigation	This topics covers the methods and approaches in solving computational problems.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: decomposition and abstraction and to analyse a set of requirements.	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment. Homework Homework once a week to assess specific content and skills covered.
3 & 4	Design	This topics covers the design and	This topic enables pupils to demonstrate and apply knowledge and understanding on the	Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment.

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		documentation of a computing system.	following: Design of data structures using pseudo code or flowcharts, design and document routines for validation and verification, data handling and processing, authentication etc.	<p>Homework Homework once a week to assess specific content and skills covered.</p>
3 & 4	Implementation	This topics covers the implementation of a solution to a computational problem or IT solution.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: Design coding, write code, test and refine code. It uses programing constructs including iteration, selection, sequence, file handling etc.	<p>Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment.</p> <p>Homework Homework once a week to assess specific content and skills covered.</p>
3 & 4	Testing	This topics covers the design and implementation different forms of testing.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: testing strategy, use of typical, extreme, erroneous data, use of a test plan and record the outcome of tests.	<p>Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment.</p> <p>Homework Homework once a week to assess specific content and skills covered.</p>
3 & 4	Refinements	This topics covers the improvements to a system after testing to ensure it is efficient and it meets user requirements.	This topic enables pupils to demonstrate and apply knowledge and understanding on the following: Demonstrating understanding of changes required due to testing, Identification of strengths and weaknesses of a system, evaluation of outcomes, demonstrating testing and refinements.	<p>Lesson activities, use of past questions to learn exam techniques, homework understanding checks, end of unit teacher assessment.</p> <p>Homework Homework once a week to assess specific content and skills covered.</p>