**IT Scheme of Work 2021-2022: YEAR 10**  **OCR INFORMATION TECHNOLOGIES**

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| **AUTUMN TERM 1: SEPT - OCT** | **AUTUMN TERM 2: OCT - DEC**  | **SPRING TERM 1: JAN - FEB**  |
| **Unit 1 – The Project Life Cycle** | **Legislation and Cyber security** | **Unit 3**  |
| **AO: to recap the project life cycle and project planning tools.**Pupils will recap the inputs and outputs of the project life cycle. Pupils will review project planning tools and computer legislation.Topics include:* The Project Life Cycle
* The phases of the project life cycle
* Computer legislation
* Project planning tool

**OCR ZigZag Education** | **AO: to explore the implications of cyber security and computer legislation.**Pupils will learn the significance of the five broad areas of impact, ie law, environment, culture, ethics, and privacy.  Pupils will explain what is meant by the ‘digital divide’ and measures to mitigate its effect.Topics include:* Apply the terms ‘privacy’, ‘legal’, ‘ethical’, ‘environmental’, and ‘cultural’.
* General Data Protection Regulation (GDPR).
* Computer Misuse Act.
* Digital divide.

**OCR ZigZag Education** | **AO: to identify the correct software for a given purpose and test its usability.**Pupils will learn that a test plan is used to check the functionality, usability, and accessibility of your solution. Pupils will understand what needs to be included in a test plan. Pupils will learn that a test plan needs to be used iteratively, and that your design should reflect this Topics include:* Consider purpose of various software’s.
* Create a test plan.
* Understand why it is important to review your work

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| **SPRING TERM 2: FEB - MAR** | **SUMMER TERM 1: APR - MAY** | **SUMMER TERM 2: JUN - JUL** |
| **Advanced Modelling** | **Cybersecurity** | **Data collection** |
| **AO: to examine the purpose of integrating software for a given scenario.**Pupils reviews the concept of spreadsheets and why spreadsheets are useful. They will learn how to navigate and integrate software considering user requirements. **Topics:*** Review of spreadsheets and G-suite software.
* Different reasons to integrate software
* Creating a GUI

**OCR ZigZag Education**  | **AO: To identify different types of malwares and social engineering.**Pupils will recap different types of threats to data and learn the prevention methods to help protect data theft and manipulation.**Topics:*** Prevention methods
* Physical – Biometrics
* Logical – authentication/ username password
* Anti-virus software
* Encryption
* Theft of data
* Different types of hackers
* Malware
* Social engineering
* Pharming
* Environment threats to data

**OCR ZigZag Education** | **AO: to understand how data is collected and stored.**Pupils will learn about how data is collected and stored and the purpose of data and what the term “Big Data” means. **Topics:**• Collecting data• Presenting data• Big Data• How organisations and businesses use data.**OCR ZigZag Education** |