## IT Scheme of Work 2023-24: YEAR 9

| AUTUMN TERM 1:  SEPT - OCT | AUTUMN TERM 2: OCT - DEC | SPRING TERM 1: JAN - FEB |
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| **Design Tools** | **HCI** | **Digital World** |
| **AO: to types of design tools and how to use each design tool for a purpose**<br><br>In this unit I students will learn the theoretical knowledge and understanding to apply design tools for applications, principles of human computer interfaces and the use of data and testing in different contexts when creating IT solutions or products.<br><br>Topics:<br><br>• Design tools<br>• Flow charts Mind maps<br>• Library<br>• Tunnel timeline<br>• Presentation<br>• Wireframes | **AO: to understand the purpose of HCI in everyday life.**<br><br>Pupils will learn the purpose of HCI and how this can be adapted for human needs.<br><br>Pupils will understand:<br><br>• Know the purpose of HCI<br>• Know why HCI is used for each application area<br>• Know the importance of HCI applied to each<br>• application area<br>• Advantages and disadvantages of the use of an HCI for each application area<br><br>Topics:<br><br>• Banking<br>• Embedded systems<br>• Entertainment<br>• Fitness<br>• Home appliances<br>• Retail | **AO: to understand types of digital communications and the IoE.**<br><br>You will understand the uses of Internet of Everything and the application of this in everyday life, cyber-security and legislations related to the use of IT systems, and the different types of digital communications software, devices, and distribution channels.<br><br>Pupils will understand:<br><br>• Types of communication<br>• Software<br>• Digital devices<br>• Types of distribution channels<br>• Distribution channels connectivity<br>• Audience demographics<br>• IoE<br>• Application areas in everyday life |
| **ZigZag Education**<br>**Booklet 1** | **ZigZag Education**<br>**Booklet 1** | **ZigZag Education**<br>**Booklet 4** |
| SPRING TERM 2: FEB - MAR | SUMMER TERM 1: APR - MAY | SUMMER TERM 2: JUN - JUL |
| **Data and testing** | **Computer Related Legislation** | **Modelling using spreadsheet solution RO60.** |

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| **AO: to understand the purpose of testing and the difference between data and information.**<br><br>Pupils will explore the different types of data and how to test their work appropriately for purpose.<br><br>Topics:<br><br>- Information and data<br>- Data types in context<br>- Validation vs verification<br>- Data collection<br>- Data storage<br>- Purpose of testing<br>- Test data<br>- Types of testing<br><br>**ZigZag Education**<br>**Booklet 2** | **AO: to explore computer legislation**<br><br>Pupils will explore computer legislation to understand how this relates to creating an IT product.<br><br>Topics:<br><br>- Threats<br>- The impacts of a cyber security attack on individuals and/or organisations<br>- Prevention methods<br>- Legislation related to the use of IT systems<br><br>**ZigZag Education**<br>**Booklet 3** | **AO: to understand the usability of a spreadsheet for a solution**<br><br>Pupils will examine how spreadsheets are used and how to make design decisions for a purpose.<br><br>Topics:<br><br>- To explain what a spreadsheet is and how it is used in business.<br>- Consider integration and how this can be used effectively for their solution.<br>- Identify the user requirements and begin to design an interface.<br>- Consider layout and design and usability of their design.<br>- House style, formatting and branding.<br>- Identify the data types: text, number, Boolean, and date and when they would be used.<br>- Invoices and reports.<br>- Forms and charts.<br><br>**OCR Resources RO60 Practice Assignment.** |