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| **Year 10 Term 1**  **Cambridge Nationals in IT** | Our mission is to stimulate and challenge our students to excel and provide a desire for lifelong learning and pursue careers in the world of Business, Computing, and ICT. | | | | | |
| **Enquiry Questions: Can there be a HCI where you can interact using emotion? Is there a limit to computer hardware?** | | | | | | |
| **R050: IT in the Digital World**  In this unit 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. 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. | | | | | | |
| **Knowledge**  Students will know about… | **Application/Skills**  Students will be able to… | **Vocabulary** | **Home Learning** | **Assessment** | **Extra Resources**  **Extended Reading** | **Cultural Capital** |
| **R050: Topic Area 1: Design Tools**  Students will understand the importance of planning before implementing a project. Students will also know when to select a suitable design tool and justify their choice.  **R050: Topic Area 2: Human Computer Interface (HCI) in everyday life**  Students will know the purpose, importance and use of Human Computer Interfaces in application areas. Students will take into account the hardware and software considerations as well as methods of interactions  **R060: Spreadsheet Skills:**  Familiarising with Excel applications and identifying common tools.  Students will creating basic spreadsheet to present data professionally  Students will develop models using formulae and functions to make calculations and predictions. | * Create mind maps, wireframes, storyboards, visualisations and flowcharts for various contexts * Creating an original document using relevant * Design tools either using software or by sketches * Know the importance of HCI applied to each application area * Advantages and disadvantages of the use of an HCI for each application area * Know the different display types and sizes that an * HCI can be used on The impact of display and resources on the HCI * Advantages and disadvantages of hardware considerations for using an HC * Creating basic spreadsheets to review skills from KS3 | * Mind Map * Visualisation * Flowchart * Wireframe * Storyboard * Human Computer Interface * Hardware * Software * Memory * Processing Power * Operating System * Tunnel Timeline * Storage Device * Worksheet * Cell * Cell Reference * Relative/Absolute Referencing * Formula * Function * Formatting | High quality Homework set on Google Classrooms  Teach-ICT.com  Hodder Education – Revision Book Cambridge Nationals in IT  Spreadsheet practice using Google Sheets | Milestone Assessments within Units of work  Formal End of unit assessments | [Teach-ICT.com](https://teach-ict.com/2016/GCSE_Computing/OCR_J277/OCR_J277_home.html)  Hodder Education – Revision Book Cambridge Nationals in IT | The National Science Museum (free events)  <https://www.sciencemuseum.org.uk/>  The Royal Institute of Science (free events)  <https://www.rigb.org/families/family-fun-days>  **National Museum of Computing, Bletchley Park (Near Milton Keynes)**  <http://www.tnmoc.org/>    Centre for Computing History, Cambridge  <http://www.computinghistory.org.uk/> |