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| **Year 10 Term 4 – Term 6**  **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 you link spreadsheets over a network to expand the HCI or Model?** | | | | | | |
| **R060: Data Manipulation using Spreadsheets**  In this unit students will learn the skills to be able to plan and design a spreadsheet solution to meet client requirements. They will be able to use a range of tools and techniques to create a spreadsheet solution based on their design, which will also be test. Pupils will be able to evaluate their solution based on the user requirements. | | | | | | |
| **Knowledge**  Students will know about… | **Application/Skills**  Students will be able to… | **Vocabulary** | **Home Learning** | **Assessment** | **Extra Resources**  **Extended Reading** | **Cultural Capital** |
| **R060: Topic Area 1: Planning and designing the spreadsheet solution**  1.1 Design Tools  1.2.1 Functionality  1.2.2 Outputs  1.2.3 HCI Navigation –  **R060: Topic Area 2: Creating the Spreadsheet**  2.1.1: Cell naming and referencing  2.1.2: Multi-sheet referencing  2.1.3: Data types  2.1.4: Data validation  2.1.5: Formulae and functions  2.1.6: Cell formatting  2.1.7: Sorting and filtering  2.1.8: Spreadsheet security  2.1.9: Modelling  **R060: Topic Area 3: Testing the spreadsheet solution**  3.1 Test the user interface and the technical aspects of the spreadsheet solution  **R060: Topic Area 4: Evaluating the spreadsheet solution**  4.1 Methods used to evaluate the success of the spreadsheet solution | * Produce design documents to create the spreadsheet solution including functionality, navigation system and outputs from the system * Selection and use of appropriate software tools and techniques to effectively plan the spreadsheet solution * Design the calculations using flowcharts to enable others to understand calculations taking place * Design different types of outputs to meet user/ client needs using visualisation diagrams and wireframes * Creating output documents that follow the house style and page layout properties as planned and designed and ensuring the information in the rows and columns headings are visible or hidden as needed * Following a given test plan document which includes test number, test description, test data, expected result, actual result, remedial action, retesting * Evaluate Whether the planned spreadsheet solution has been created | * Flow charts * Mind maps * Story board * Visualisation diagram * Wireframe * Charts * Lists * Invoices * Reports * Worksheets * Data validation * Lookup * Range check * Text length * Cell formatting * Conditional formatting * Formulae * Operators * Cell references * Relative, absolute, Named, Multi-sheet, referencing * Functions * Pivot tables * Data types * Buttons * Macros * Hyperlinks * Forms * Technical testing * Usability testing | 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  Controlled Assessment | [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/> |