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| **Year 11 Term 2 – Term 5**  **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 Augmented reality breach health and safety risks, especially in driving?** | | | | | | |
| **R070: Data Manipulation using Spreadsheets**  In this unit students will learn the basics of Augmented Reality (AR) and the creation of a model prototype product to showcase how it can be used appropriately for a defined target audience to present information. They will also learn the purpose, use and types of AR in different contexts and how they are used on different digital devices. Students will develop the skills to be able to design and create an AR model prototype, using a range of tools and techniques, as well as be able to test and review their AR model prototype. | | | | | | |
| **Knowledge**  Students will know about… | **Application/Skills**  Students will be able to… | **Vocabulary** | **Home Learning** | **Assessment** | **Extra Resources**  **Extended Reading** | **Cultural Capital** |
| **R070: Topic Area 1: Augmented Reality (AR)**  1.1 Purpose and uses of Augmented Reality (AR)  1.2 Types of Augmented Reality (AR) and user interaction  1.3 Devices used with Augmented Reality (AR)  **R070: Topic Area 2: Designing an Augmented Reality (AR) model prototype**  2.1 Planning and design considerations  2.2 Design Tools  **Topic Area 3: Creating an Augmented Reality (AR) model prototype**  3.1 Augmented Reality (AR) model prototype  3.2 Triggers  3.3 Layers / user interaction  3.4 information output  **R070: Topic Area 4: Testing and reviewing**  4.1 Testing  4.2 Reviewing the process of creating the Augmented Reality (AR) model prototype | * Students are expected to conduct extensive research to obtain the following knowledge: * Know the different sectors that use AR * Know how different sectors use AR * Know the different types of AR * Know which sectors use each type of AR * How users can interact with AR * Know which sectors use the different types of user interaction * Explain the purpose and user requirements of an AR product * Explain the target audience for an AR product * Identify the content and assets required to create an AR product * Identify the quality of the assets used to create an AR product * Explain the triggers and user interactions required for an AR product * Marker-based is a unique static image/trigger causing content to retrieve the content to superimposed on reality * Markerless scans environment, with no static image/ trigger to retrieve the content to superimpose on reality * Superimposition is a partial/entire replacement of object view with augmented object | * Types of AR * Object recognition / Marker-based * Location based / Markerless * Superimposed * User interaction / layers * Static * Interactive | High quality Homework set on Google Classrooms  Teach-ICT.com  Hodder Education – Revision Book Cambridge Nationals in IT | Practice Exam Papers  PPE2 & PPE3 Exams  Controlled Assessment of Coursework | [Teach-ICT.com](https://teach-ict.com/2016/GCSE_Computing/OCR_J277/OCR_J277_home.html)  BBC Bitesize  Hodder Education – Revision Book Cambridge National 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/> |