

# HIGHFIELDS SCHOOL

CURRICULUM OVERVIEW 2023-2024



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**SUBJECT: CAMBRIDGE NATIONAL: INFORMATION TECHNOLOGIES**

**EXAMINATION BOARD: OCR**

AUTUMN TERM - YEAR 10	SPRING TERM - YEAR 10	SUMMER TERM - YEAR 10
<p><b>R060 Data manipulation using spreadsheet</b> Students will plan, design, create and test the spreadsheet solution to meet client requirements.</p> <p>Planning and designing the spreadsheet solution</p> <p>1.1 Design tools</p> <p>1.2 Human Computer Interface (HCI) design conventions and principles</p> <ul style="list-style-type: none"> <li>• Functionality</li> <li>• Types of outputs</li> <li>• HCI</li> </ul> <p><b>Creating the spreadsheet solution</b></p> <p>2.1 Use spreadsheet tools and techniques to create the solution</p> <ul style="list-style-type: none"> <li>• Data handling and manipulation</li> <li>• Techniques to generate outputs</li> <li>• User interface</li> </ul> <p>Students will test the solution based on user requirements.</p> <p><b>Testing the spreadsheet solution</b></p> <p>3.1 Test the user interface and the technical aspects of the spreadsheet solution</p>	<p><b>R060 Data manipulation using spreadsheet</b> Students will evaluate the solution based on user requirements.</p> <p>Evaluating the spreadsheet solution</p> <p>4.1 Methods used to evaluate the success of the spreadsheet solution</p> <p><b>R070 Using Augmented Reality (AR) to present information</b></p> <p>Introduction to AR</p> <p>1.1 Purpose and uses of AR</p> <p>1.2 Types of AR and user interaction</p> <p>Students will create a model prototype product to showcase how it can be used appropriately for a defined target audience to present information.</p> <p>Designing an AR model prototype</p> <p>2.1 Planning and design considerations</p> <p>2.2 Design Tools</p> <p><b>Creating an AR model version 1</b></p> <p>3.1 Triggers</p> <p>3.2 Layers/user interactions</p> <p>3.3 Information output</p>	<p><b>R070 Using Augmented Reality to present information</b> Students will refine a model prototype product, test and review the process of creating the AR model prototype.</p> <p>Creating an AR model – final version</p> <p>3.1 Triggers</p> <p>3.2 Layers/user interactions</p> <p>3.3 Information output</p> <p>Carrying out testing to ensure the AR model prototype works as intended</p> <p>4.1 Technical and user testing</p> <p>Review to include:</p> <p>4.2 Effectiveness of processes followed, and tools/techniques used, and lessons learnt</p> <p><b>R050 IT in the digital world</b></p> <p>1. Types of design tools</p> <p>2. Human Computer Interface (HCI) in everyday life (purpose, importance, use, hardware, software, user interaction)</p> <p>3. Data and testing (information and data, data use)</p>
<p><b>ASSESSMENT</b></p> <p><b>R060:</b> coursework assignment set by OCR, internally assessed, externally moderated.</p> <p><b>Standard Assessment</b></p> <p>Design tools</p> <p>Spreadsheet tools and techniques to create the solution</p>	<p><b>ASSESSMENT</b></p> <p><b>R060 &amp; R070:</b> coursework assignment set by OCR, internally assessed, externally moderated.</p> <p><b>Standard Assessment</b></p> <p><b>R060:</b> Evaluation of spreadsheet solution</p> <p><b>R070:</b> AR model v1</p>	<p><b>ASSESSMENT</b></p> <p><b>R070:</b> coursework assignment set by OCR, internally assessed, externally moderated.</p> <p><b>R050:</b> exam (set and marked by OCR).</p> <p><b>Standard Assessment</b></p> <p><b>R070:</b> Review of AR model prototype with consideration of the defined purpose</p> <p><b>R050:</b> Test on topic areas 1, 2 and 3 above</p>

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**EXAMINATION BOARD: OCR**

AUTUMN TERM - YEAR 11	SPRING TERM - YEAR 11	SUMMER TERM - YEAR 11
<p><b>R050 IT in the digital world</b> 3. Data and testing (information and data, use of data, validation and verification, data collection, storage and testing) 4. Cyber-security (threats, impacts, prevention measures) and legislation</p>	<p><b>R050 IT in the digital world</b> 5. Digital communications (types, software, devices, channels, connectivity, audience demographics) 6. Internet of everything (use of, application areas in everyday life)</p>	<p><b>R050 IT in the digital world</b> 4Rs activities in preparation for final exam – for all topics: design tools, HCI, data and testing, cyber-security, digital communications, internet of everything</p>
<p><b>ASSESSMENT</b> <b>R050:</b> exam (set and marked by OCR)</p> <p><b>Standard Assessment</b> Data and testing test Cyber-security test</p>	<p><b>ASSESSMENT</b> <b>R050:</b> exam (set and marked by OCR)</p> <p><b>Standard Assessment</b> Digital communications test Internet of everything test</p>	<p><b>ASSESSMENT</b> <b>R050:</b> exam (set and marked by OCR)</p> <p><b>Standard Assessment</b> Past exam questions – paper 1 Past exam questions – paper 2</p>