## Key Stage 4 Curriculum Journey: IT

The curriculum in IT will give pupils the opportunity think creatively, innovatively, analytically, logically and critically through practical experience of using Spreadsheet Software and producing AR solutions for given problems. Pupils will understand and apply the fundamental principles and concepts of IT, including the use of IT in the digital world, Internet of Everything, data manipulation and Augmented Reality

YEAR 10 CURRICULUM JOURNEY							
	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6	
Topic							
	Planning and designing / Creating a spreadsheet solution	Testing / Evaluation a spreadsheet solution	R060 Completion	R060 Completion	AR / Designing AR	Creating an AR model prototype / Testing and reviewing AR	
Key Knowledge, Skills & Understanding	<ul> <li>Produce design documents to create a spreadsheet solution</li> <li>Know how to design the calculations using flowcharts</li> <li>How to design meaningful messages to be displayed to end users when errors occur</li> <li>Be familiar with the creation of different types of outputs to meet user/client needs</li> <li>Design a clear navigation system that meets the user/client needs using visualisation diagram(s) and/or wireframe(s)</li> <li>Use spreadsheet tools and techniques to create the solution</li> <li>Use techniques to generate the outputs</li> <li>Create an interface which is fit for purpose</li> </ul>	<ul> <li>Test the user interface and the technical aspects of the spreadsheet solution</li> <li>Create a test plan which includes both technical and non-technical tests.</li> <li>Know how suitable the spreadsheet solution is for the requirements of a client</li> <li>Know how effectively the visual style has been generated</li> </ul>	<ul> <li>Learn the skills to be able to plan and design a spreadsheet solution to meet client requirements</li> <li>Use a range of tools and techniques to create a spreadsheet solution based on your design</li> <li>Test your solution using a test plan</li> <li>Evaluate your solution based on the user requirements</li> </ul>	<ul> <li>Learn the skills to be able to plan and design a spreadsheet solution to meet client requirements</li> <li>Use a range of tools and techniques to create a spreadsheet solution based on your design</li> <li>Test your solution using a test plan evaluate your solution based on the user requirement</li> </ul>	<ul> <li>Purpose and uses of Augmented Reality (AR)</li> <li>Types of Augmented Reality (AR) and user interaction</li> <li>Explain the purpose, user requirements and target audience of an AR product</li> <li>Explain the triggers and user interactions required for an AR product</li> <li>Use appropriate design tools to support the creation of an AR product</li> </ul>	<ul> <li>Create model prototype to demonstrate the working functionality of the AR product</li> <li>Creates triggers should contain as many graphical elements and shapes as possible</li> <li>Use layers and user interaction</li> <li>Result of the user trigger interaction causing information output</li> <li>Create reports to present information to the client and the end user, consider where the information is coming from</li> </ul>	
GCSE Assessment Objectives	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	PO2 - Apply knowledge and understanding PO3 - Analyse and evaluate knowledge, understanding and performance PO4 - Demonstrate and apply skills and processes relevant to the subject area	
MAPs	2 x MAPs applying content to examination questions	3 x MAPs applying content to examination questions	3 x MAPs applying content to examination questions	3 x MAPs applying content to examination questions	3 x MAPs applying content to examination questions	3 x MAPs applying content to examination questions	



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YEAR 11 CURRICULUM JOURNEY								
	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Te			
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Topic	R070 Completion	R070 Completion	Design Tools / HCI / Data and Testing	Cyber Security and legislation / Digital comms / IoE	Recall and			
Key Knowledge, Skills & Understanding	<ul> <li>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.</li> <li>Learn the purpose, use and types of AR in different contexts and how they are used on different digital devices.</li> <li>Develop the skills to be able to design and create an AR model prototype, using a range of tools and techniques.</li> <li>Test and review your AR model prototype.</li> </ul>	<ul> <li>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.</li> <li>Learn the purpose, use and types of AR in different contexts and how they are used on different digital devices.</li> <li>Develop the skills to be able to design and create an AR model prototype, using a range of tools and techniques.</li> <li>Test and review your AR model prototype.</li> </ul>	<ul> <li>Know the types of design tools and the advantages and disadvantages</li> <li>Know the purpose, importance and use of HCI in applications areas</li> <li>Know hardware and software considerations</li> <li>Know user interaction methods</li> <li>Understand the difference between data and information</li> <li>Describe the use of data types in different contexts</li> <li>Apply data validation and verification tools</li> <li>Compare data collection methods</li> <li>Describe how to test systems</li> </ul>	<ul> <li>Define network threats, including hacking, malware and social engineering</li> <li>Describe the impacts of social engineering attacks on divisional and organisation</li> <li>Describe and apply prevent methods</li> <li>Know legislation related to IT</li> <li>Know the types of digital communications</li> <li>Describe the types and connection methods for distribution channels</li> <li>Know the audience demographics for digital comms</li> <li>Know uses of IoE and its application in everyday life</li> </ul>				
GCSE Assessment Objectives	<ul> <li>PO2 - Apply knowledge and understanding</li> <li>PO3 - Analyse and evaluate knowledge, understanding and performance</li> <li>PO4 - Demonstrate and apply skills and processes relevant to the subject area</li> </ul>	<ul> <li>PO2 - Apply knowledge and understanding</li> <li>PO3 - Analyse and evaluate knowledge, understanding and performance</li> <li>PO4 - Demonstrate and apply skills and processes relevant to the subject area</li> </ul>	PO1 - Recall knowledge and show understanding PO2 - Apply knowledge and understanding P03 - Analyse and evaluate knowledge, understanding and performance	<ul> <li>PO1 - Recall knowledge and show understanding</li> <li>PO2 - Apply knowledge and understanding</li> <li>P03 - Analyse and evaluate</li> <li>knowledge, understanding and performance</li> </ul>	PO1 - Recall know understanding PO2 - Apply know understanding P03 - Analyse and knowledge, under performance			
MAPs	• 3 x MAPs applying content to examination questions	<ul> <li>3 x MAPs applying content to examination questions</li> </ul>	• 2 x MAPs applying content to examination questions	<ul> <li>2 x MAPs applying content to examination questions</li> </ul>				



Term 5	Half Term 6
nd Revision	
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