St Sampson's High School –_ICT_ Department – Y10 Curriculum Implementation

KS3: Year 10	1.1	1.2	2.1	2.1	3.1	3.2	Year 10 Progression <u>END POINTS:</u>
Topic **Big Question** **Specific Focus**	**How is IT used in the digital world?** **R050 (Exam Prep)**	**How is IT used in the Digital World?** **R050 (Exam Prep)**	**Why is the testing of data collection systems being important and what can the consequences be?** **PRACTICE NEA R060**	**How to use feedback to improve a given context.** **PRACTICE NEA R060**	**What is AR and how can we use it help improve in today's digital world?** **PRACTICE R070**	**Explain how developing AR software can be used in today's world of technology to present information.** **PRACTICE R070**	**R050** **Use design tools to improve user interaction. The purpose of tools for different software and hardware.** **Advantages and disadvantages of hardware and software for a given context.** **User testing to change and improve original work.** **Different types of legislation regarding computer systems.** **Collection and storage of data using logical locations and physical locations of internal storage and external storage and explain advantages and disadvantages of all.** **Cyber security.** **R060** **Use of advanced spreadsheet tools for a given context.** **Manipulation of spreadsheets to present information using charts, lists, invoices, reports and worksheets for an organisation.** **Perform calculations** **Show planning using design tools of flow charts, mind maps, storyboards, visualisation diagrams and wireframes.** **Show and improve functionality through**
Curriculum Directory Area Of Study	Know how to use design tools and apply them to different scenarios in the creative industries (Wire Frames; Visualisation Diagrams; Mind Maps; Flow Charts) Analyse how a computer interface is made easy for the user. Analyse data types and test them. Learn how to Use Excel	Cyber security and why it is necessary. Legislation and effect on computing. What is data and know difference between data and information. How data is converted to information and the relationship between data and information. Understand the purpose of validation and verification and the characteristics of each data type. Suitability and justification of the use of data types for a given context using Alphanumeric (letters and numbers) checked through testing. Storage of collected data including logical and physical locations.	Create a spreadsheet for a given context. Show use of data collection methods and validation and storage of data. Should include data types in given context and the characteristics of each data type Show the suitability and justify the use of data types applied to a given context. Show use of alphanumeric combination of letters and numbers. Use validations and verification tools and be able to show testing of validations tools. Students complete practice test 'BCC Comics' using skills ready for NEA. They will need to show testing	Students complete practice test 'BCC Comics' using skills ready for NEA. They will need to show testing and act on feedback to make improvements. Show how improvement aid both design and end user experience through testing programs.	Introduction to AR software and its uses. The purpose of using Augmented Reality to present information. How the different sectors use AR. The coding behind AR and the different types of AR and how they can be used on different devices. Use AR for a target audience for in a given context. Superimposition is a partial/entire replacement of object view with augmented object. Consider planning and design considerations.	Students will take the full paper of R050 examination. Using skills from previous lessons design and built an AR prototype for given context. Identifying the content and assets that are required and show use of triggers and user interactions for the product.	

			and act on feedback to make improvements.				**Calculations, sorting, filtering and user aids of data entry messages and data validation to provide a given solution.**
Assumed Prior Knowledge	Low level use at KS3	Use of simple spreadsheets and some of the functions within. E-safety covered year 7,8 and 9	Previous term introduction to advance spreadsheets.	Previous term knowledge of using advanced tools and able to work on feedback, making any suggested corrections and improvements.	No previous knowledge of using AR software.	Skills from previous lessons to create a prototype	**Unit R070** **What is AR and how it is used in today's world of technology to present information and aid the end user.** **Explain the different types of augmented reality (AR) and user interaction/layers.**
Key Knowledge and Retention	Know components of each design tool and appropriate software and hardware. Know how to build a functional spreadsheet to analyse profit and loss	Characteristics of each data type. The purpose of validation and verification and how validations tools reduce user errors. Data testing with use of validation tools. Importance of data security in relation to IT systems, and the use of different legislations toward IT systems. Advantages and disadvantages of the use of HCI in each application area. How different display types and sizes can be use. Hardware and software considerations when using HIC.	**PRACTICE NEA R060** Know the different validation and verification tools. Explain the different characteristics of each data type. The purpose of data validation and how they can reduce user errors. Create a test plan that shows the role of each type of test data during testing. Know what technical testing is and what the end user is testing and what tests can be used. Used any negative testing results to show improvements.	Practice NEA R060 in preparation for key exam points in year 11. Students will understand an example through physical practice and completion. Re-submit practice after making changes based on feedback and testing program.	The use of Pencil Plans Marketing and work on improvements based on feedback. Use skills to build a prototype for a given context using AR software.	Show use of design Planning for a given context Testing plan Improvements Show consideration of defined purpose of the AR model prototype.	**Know the different types of devices AR can be used on.** **The coding behind AR** **Know the importance of testing and making improvements using feedback.** **Use different design tools and software for a given context.** **How different sectors use AR like entertainment, education, architecture, retails and lifestyle.**

		Know how HCI is used in various operating systems and the impact that HIC has on digital platforms and their design.					
Tier 2 Vocabulary	Banking Display Memory Processing Power Entertainment Gesture Mobile app Spreadsheet Website	Primary Secondary Email Interview Data collection Valid User Technical	Design Evaluate Test Create Plan Implement Report	Design Evaluate Test Create Plan Implement Report	Virtual tour Design Lifestyle Layers Mobile device Smart device Interaction Photographic Audio Charts Mood boards	Prototype Testing Improvements Test plan Layers Charts Mood boards	

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Tier 3 Vocabulary	Embedded systems Digital platform Operating systems	Logical location Physical location Internal storage External storage Portable external hard drive disc (HDD) Portable Solid-State Drive (SSD) Portable-attached storage (NAS) Technical testing Invalid (Erroneous) Legislations	Verification tools Data validation Security Measures Cell referencing Functionality If Statements Reports in Excel Charts Axis Legend Title	Verification tools Data validation Security Measures Cell referencing Functionality If Statements Reports in Excel Charts Axis Legend Title	Architecture Markerless scans Superimposed Visualisation Object recognition Wireframes Visualisation diagrams Action flow Object recognition	Functionality Remedial action Aesthetics Technical testing Architecture Markerless scans Superimposed Visualisation Object recognition Wireframes Visualisation diagrams Action flow Object recognition	
Literacy Strategy Focus							

Progression waypoints	R050 Use design tools to improve user interaction. The purpose of tools for different software and hardware. Advantages and disadvantages of hardware and software for a given context. User testing to change and improve original work. Different types of legislation regarding computer systems. Collection and storage of data using logical locations and physical locations of internal storage and external storage and explain advantages and disadvantages of all. Cyber security. R060 Use of advanced spreadsheet tools for a given context. Manipulation of spreadsheets to present information using charts, lists, invoices, reports and worksheets for an organisation. Perform calculations Show planning using design tools of flow charts, mind maps, storyboards, visualisation diagrams and wireframes. Show and improve functionality through Calculations, sorting, filtering and user aids of data entry messages and data validation to provide a given solution. Unit R070	• R060 • Use of advanced spreadsheet tools for a given context. • Manipulation of spreadsheets to present information using charts, lists, invoices, reports and worksheets for an organisation. • Perform calculations • Show planning using design tools of flow charts, mind maps, storyboards, visualisation diagrams and wireframes. • Show and improve functionality through • Calculations, sorting, filtering and user aids of data entry messages and data validation to provide a given solution.	R050 Use design tools to improve user interaction. The purpose of tools for different software and hardware. Advantages and disadvantages of hardware and software for a given context. User testing to change and improve original work. Different types of legislation regarding computer systems. Collection and storage of data using logical locations and physical locations of internal storage and external storage and explain advantages and disadvantages of all. Cyber security. R060 Use of advanced spreadsheet tools for a given context. Manipulation of spreadsheets to present information using charts, lists, invoices, reports and worksheets for an organisation. Perform calculations Show planning using design tools of flow charts, mind maps, storyboards, visualisation diagrams and wireframes. Show and improve functionality through Calculations, sorting, filtering and user aids of data entry messages and data validation to provide a given solution. Unit R070 What is AR and how it is used in today's world of technology to present information and aid the end user.	

	What is AR and how it is used in today's world of technology to present information and aid the end user. Explain the different types of augmented reality (AR) and user interaction/layers. Know the different types of devices AR can be used on. The coding behind AR Know the importance of testing and making improvements using feedback. Use different design tools and software for a given context. How different sectors use AR like entertainment, education, architecture, retails and lifestyle.				Explain the different types of augmented reality (AR) and user interaction/layers. Know the different types of devices AR can be used on. The coding behind AR Know the importance of testing and making improvements using feedback. Use different design tools and software for a given context. How different sectors use AR like entertainment, education, architecture, retails and lifestyle.		
Stepped / Formal Assessments:	GCSE Exam questions	GCSE Exam Questions	Exam questions	Practice NEA R060	Exam questions	Full exam paper R050	

Support for students returning from absence
We have DO NOWs every lesson that recap previous learning
If a student returns to lessons following absence, the teacher will help the student complete the do now or we buddy up the student
Catching up is enabled through teacher and peer support. Students are completing a variety of different tasks around the room so
Access information regarding work -current and catching up - to be found in 'Classroom'