

CTEC IT KS5 Curriculum Overview	Links to KS4		This qualification links to some content covered in KS4 CNAT Creative iMedia (legislation and consideration of audience and purpose) and also some of the GCSE Computer Science exam content (hardware, software, networking, cyber security etc).					
	Intent	Statement of Intent	This qualification is for learners who wish to study IT in a context that allows them to learn and be assessed in ways that are practical and relevant to the IT sector. This qualification is not just about being able to use computers, it is designed to give learners a range of specialist knowledge and transferable skills in the context of applied IT. All learners will study the two mandatory examined units: Fundamentals of IT (Unit 1) and Global Information (Unit 2). These units provide learners with an insight into the IT sector, as they investigate the pace of technological change, IT infrastructure, and the flow of information on a global scale, as well as the important legal and security considerations. Learners will take the designated mandatory coursework unit for the Emerging Digital Technology Practitioner pathway – Virtual and Augmented Reality (Unit 5). Learners will research and design both a Virtual and Augmented Reality resource and suggest future applications for Virtual and Augmented Reality. Of the optional units available on the course all learners will take the Computer Systems – Hardware (Unit 18) coursework unit then learners can elect to either undertake an additional exam in Cyber Security (Unit 3) or an additional coursework unit on Mobile technology (Unit 12).					
		Timeline	Term 1 - 7 Weeks	Term 2 - 7 Weeks	Term 3 - 6 Weeks	Term 4 - 6 Weeks	Term 5 - 6 Weeks	Term 6 - 7 Weeks
	Implementation (Year 12)	Year 12 Overview	Terms 1 and 2 - Unit 1 Fundamentals of IT Exam LO1: Understand computer hardware; LO2: Understand computer software; LO3: Understand business IT systems; LO4: Understand employability and communication skills used in an IT environment; LO5: Understand ethical and operational issues and threats to computer systems. Terms 3, 4 and 5 - Unit 3 Cyber Security or Unit 12 Mobile Technology (optional unit choice) LO1: Understand what is meant by cyber security; LO2: Understand the issues surrounding cyber security; LO3: Understand measures used to protect against cyber security incidents; LO4: Understand how to manage cyber security incidents LO1: Understand mobile technologies; LO2: Be able to investigate how businesses use mobile technologies; LO3: Be able to determine solutions for the use of mobile technologies; LO4: Be able to present solutions for the use of mobile technologies Term 6 - Unit 18 Computer Systems (Hardware) LO1: Understand the components of a computer system; LO2: Be able to propose a computer system for identified business requirements.					
		Assessment Type & SOW Focus	Unit 1 Fundamentals of IT (90 GLH) - mandatory 90 minute written exam paper Unit 3 Cyber Security (60 GLH) - optional 60 minute written exam paper Unit 12 Mobile Technology (60 GLH) - optional research based and developing a solution to a given problem coursework assessed unit with written assignments. Unit 18 Computer Systems (Hardware) (60 GLH) - optional coursework unit with practical PC building assessment and written assignments					
	Implementation (Year 13)	Year 13 Overview	Term 1 - Unit 18 Computer Systems (Hardware) LO3: Be able to build or upgrade computers; LO4: Be able to test and evaluate the functionality of computer systems Terms 1 and 2 - Unit 2 Global Information Exam LO1: Understand where information is held globally and how it is transferred; LO2: Understand the styles, classification and the management of global information; LO3: Understand the use of global information and the benefits to individuals and organisations; LO4: Understand the legal and regulatory framework governing the storage and use of global information; LO5: Understand the process flow of information; LO6: Understand the principles of information security. Terms 3, 4 and 5 - Unit 5 Virtual and Augmented Reality LO1: Understand virtual and augmented reality and how they may be used; LO2: Be able to design virtual and augmented reality resources; LO3: Be able to create a virtual or augmented reality resource; LO4: Be able to predict future applications for virtual and augmented reality					
		Assessment Type & SOW Focus	Unit 18 Computer Systems (Hardware) (60 GLH) - optional coursework unit with practical PC building assessment and written assignments Unit 2 Global Informaton (90 GLH) - mandatory 90 minute written exm paper Unit 5 Virtual and Augmented Reality (60 GLH) - mandatory investigation and app creation coursework assignment with written assignments.					
		Topic Texts	Cybersecurity for Dummies - <i>Joseph Steinberg</i> , 1st edition 2019, ISBN 978-1119560326 Virtual and Augmented Reality for Dummies - <i>Paul Mealy</i> , 1st edition 2018, ISBN 978-1119481348					
	Impact	Year 12 Review Points	RP1: T1, Wk3		RP2 (PPE1): T3, Wk2			RP3 (PPE2): T6, Wk4
		Year 13 Review Points		RP1 (PPE1): T2, Wk1		RP2: T4, Wk1	RP3 (PPE2): T5, Wk1	
		How It Is Used / Skills Set Developed / Outcomes	While studying Unit 1 students will develop research and evaluation skills. They will be able to propose the best solution to a given scenario and undertake both independent and group work. Students will compare and contrast different computer components, software, network protocols and topologies. Unit 2 will further develop the skills from Unit 1 but additionally require them to break down a pre-release scenario and analyse this to prepare for their exam. Unit 18 will involve investigating the hardware of computer systems and justifying when and where to use different components. This will enable students to build on this knowledge in year 13 when they will build a computer system. In year 13 students completing Unit 18 will work perform practical paired work building a desktop computer system and installing software. They will problem solve to ensure the device works as expected. Units 5 and (if taken) 12 will develop independent learners and they work on their research tasks before developing applications or proposing solutions to given scenarios. Students can be creative with their approaches to meeting the requirements of the coursework assignments. Students who decide to take Unit 3 will also be required to analyse a pre-release scenario and investigate methods used to keep computer systems secure.					
		Links to Higher Education	Students studying CTEC IT can progress onto degrees including Computer Science, Cyber Security, Games Design, Computer Systems Engineering, Computer Networking, Virtual Reality Software Technician, Digital Content Developer.					
		Careers in the Curriculum	Typical job roles within this pathway include; Junior Digital Content Developer, 3D Graphics Technician, Virtual Reality Software Technician, Cyber Security Specialist, IT Support Technician.					