

VOCATIONAL ICT Year 11 Curriculum End Points and Key Vocabulary

	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	
Ethos Links	<p>STEM – problem solving through analysing client briefs and defining success criteria, applying knowledge of standard document structures, formatting, placeholders, and merge fields, creating and linking structured data sources, and evaluating outputs against client requirements. Students also apply knowledge of artificial intelligence, machine learning, and the Internet of Things (IoT), explore the applications of AR and VR, analyse how image capture technologies such as drones and webcams are used in real-world contexts, and assess how management information systems, payroll software, and blockchain can improve efficiency, productivity, and data security. They further evaluate the benefits and drawbacks of AI technologies and the impact of autonomy on employment and society</p> <p>Character – resilience in learning and applying technical features such as merge fields, data sources, and emerging technologies like AI, blockchain, and IoT, critical thinking in justifying design and formatting choices and evaluating ethical issues such as autonomous vehicles and inclusivity, responsibility in ensuring accuracy, professionalism, and accessibility in digital solutions, and professionalism in applying technology to create outputs that benefit individuals, organisations, and wider society</p>	<p>STEM – problem solving through analysing client briefs and defining success criteria, applying knowledge of entities, relationships, and Entity Relationship Diagrams (ERDs), and designing relational databases with appropriate tables, keys, and validation rules to ensure integrity and minimise redundancy. Students import and manage data, interrogate information using advanced queries, and present outcomes with customised forms and reports, enhancing solutions with features such as macros, navigation tools, and Visual Basic. They also apply knowledge of artificial intelligence, machine learning, and the Internet of Things (IoT), explore the applications of AR and VR, analyse the role of image capture technologies such as drones and webcams, and evaluate how management information systems, payroll software, and blockchain can improve efficiency, productivity, and data security. Finally, they assess the benefits and drawbacks of AI technologies and the impact of autonomy on employment and society</p> <p>Character – resilience in mastering complex and fast-changing concepts such as ERDs, validation rules, AI, blockchain, and IoT, responsibility in ensuring accuracy, integrity, and ethical handling of data while promoting inclusivity through assistive technologies, critical thinking in evaluating client briefs, queries, and ethical issues such as autonomous vehicles and AI in society, and professionalism in</p>	<p>STEM – problem solving through analysing client briefs and defining success criteria, applying knowledge of relational database structures, spreadsheet models, and security systems. Students design and develop relational databases using ERDs, tables, keys, and validation rules to minimise redundancy and ensure data integrity, interrogate data with advanced queries, and present outcomes through forms and reports, enhancing solutions with features such as macros, navigation tools, and Visual Basic. They also structure spreadsheets with formulas, functions, validation, and formatting, applying advanced tools such as pivot tables, goal seek, macros, and what-if analysis to organise, analyse, and visualise data effectively. In addition, students evaluate and respond to cyber security threats including social engineering, malware, and hacking, applying knowledge of logical protection methods (firewalls, encryption, authentication) and physical methods (locks, biometrics, secure backups). They analyse the suitability of different strategies, assess the impact of emerging threats on individuals and organisations, and test all digital solutions with valid, extreme, and erroneous data to ensure accuracy, reliability, and effectiveness</p> <p>Character – resilience in mastering complex concepts such as ERDs, validation rules, advanced spreadsheet tools, and cyber security methods, responsibility in ensuring</p>	<p>STEM – problem solving through analysing client briefs and defining success criteria, applying knowledge of spreadsheet structures, formulas, and built-in tools, importing and combining data, and using formatting to improve clarity and usability. Students apply validation rules and form controls, and extend functionality through advanced tools such as pivot tables, goal seek, macros, and what-if analysis. They also test spreadsheets with valid, extreme, and erroneous data to ensure accuracy and functionality. Alongside this, students analyse threats to data privacy, apply knowledge of legislation to determine what is allowed or prohibited, evaluate the advantages and disadvantages of monitoring individuals and their data, and explore how devices, streaming, downloading, and Video on Demand services have changed access to and consumption of digital media</p> <p>Sustainability – considering the positive and negative environmental impacts of technology, including e-waste, energy consumption, and Green IT practices, promoting efficient digital working through spreadsheet modelling, and evaluating how emerging technologies such as the Internet of Things (IoT) can support sustainable living while also presenting new challenges</p> <p>Character – resilience in mastering advanced spreadsheet tools, complex calculations, and legal/ethical frameworks, responsibility in ensuring accuracy</p>	<p>STEM – problem solving and applying theoretical knowledge in data representation, computer systems, networking, databases, functional programming, and computing consequences, practising answering both short-answer and extended-response questions, developing skills in computational thinking and cross-topic problem-solving</p> <p>Character – perseverance in exam preparation, critical thinking in synthesising knowledge across multiple topics, responsibility in thorough revision and practice, confidence through understanding exam expectations and question types</p>	

		<p>producing user-friendly, accurate, and purposeful digital solutions that benefit individuals, organisations, and wider society</p>	<p>accuracy, integrity, and ethical handling of data, as well as in applying secure and professional practices, critical thinking in evaluating client briefs, queries, formulas, and security strategies to identify strengths, weaknesses, and improvements, and professionalism in producing accurate, user-friendly, and secure digital solutions that meet real-world requirements and success criteria</p>	<p>and reliability of spreadsheet solutions and in protecting personal data, critical thinking in justifying functions, formatting, and analysis methods as well as in evaluating issues such as the digital divide, net neutrality, and fake news, and professionalism in producing polished, client-focused outputs and applying knowledge of technology's wider social, economic, and environmental impacts</p>		
<p>Learning End Points</p>	<p>Automated Documents NEA Task By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • How to analyse a client brief and define success criteria for an automated document. • The purpose and structure of a standard document, including placeholders, formatting, and design features. • How data sources are structured and linked to standard documents in a mail merge. • The types and functions of merge fields (e.g. address lines, salutations, personalised content). • That spelling, grammar, and accuracy checks ensure professionalism. • That formatting and design features (e.g. letterheads, watermarks, automatic dates, alignment) enhance usability and appearance. • That mail merge produces multiple customised outputs which must be checked for accuracy. • That final documents should be evaluated against client requirements and success criteria. 	<p>Database NEA Task By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • How to analyse a client brief and define success criteria for a database solution. • That entities represent real-world concepts and can be modelled using an Entity Relationship Diagram (ERD). • The structure of a relational database, including tables, relationships, fields, primary/foreign keys, forms, queries, and reports. • How data types, field properties, and validation rules are used to ensure data integrity and minimise redundancy. • That data can be imported, updated, and managed within a database. • That queries are used to interrogate data and can include multiple criteria, wildcards, parameters, and calculations. <p>Services By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • The purpose and uses of image capture technologies such as: drones, head cameras and webcams • How image capture technology is being used by individuals and businesses in their everyday lives 	<p>Database NEA Task By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • That reports are generated from queries and can be customised to meet client needs. • That user interfaces (forms) are designed to simplify data entry and navigation, and may include validation, layout features, and branding. • That additional features (e.g. macros, navigation tools, Visual Basic) can improve usability and functionality. • That testing with valid, extreme, and erroneous data ensures accuracy and functionality. • That evaluation involves reviewing outcomes against success criteria and identifying improvements. <p>Spreadsheet NEA Task By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • How to analyse a client brief and define success criteria for a spreadsheet solution. • That spreadsheets are structured using worksheets, formulas, and built-in tools. • That data can be imported, created, and combined within a spreadsheet. • That formatting (e.g. fonts, borders, colours, alignment, conditional formatting) 	<p>Spreadsheet NEA Task By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • That formulas and functions (basic and complex) are used to perform calculations and analysis. • That advanced tools (e.g. pivot tables, goal seek, macros) automate and extend functionality. • That sorting, filtering, charts, and 'what if' analysis support data organisation, visualisation, and decision-making. • That testing with valid, extreme, and erroneous data checks functionality and accuracy. • That evaluation is used to judge effectiveness against success criteria and identify improvements. <p>Legal, Moral and Cultural Impacts of ICT By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • The different ways in which the privacy of personal data can come under threat • The advantages and disadvantages of monitoring individuals and their data • The potential impact of data loss on individuals and businesses • The purpose of key ICT-related legislation (e.g. Data Protection Act, Computer 	<p>Revision By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • Core principles and terminology from Unit 1 content including: <ul style="list-style-type: none"> ○ The distinction between data and information and how information is processed and used ○ The use of ICT in different contexts: individuals, organisations, education, and society ○ Networking and data transfer methods (wired, wireless, internet) ○ Legal, moral, ethical, cultural, and environmental issues relating to ICT (e.g. data protection, copyright, e-waste) ○ Cybersecurity threats and protection methods ○ Emerging technologies (e.g. IoT, AI, cloud computing) and their impact on society and business • How ICT supports decision-making, efficiency, and communication in real-world contexts. • The structure and expectations of the Unit 1 external assessment, including: 	

	<p>Services By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • How smart technology can control systems such as heating, lighting and security • How these online services work • What is meant by artificial intelligence and machine learning • How artificial intelligence can be applied to the technologies we use in our everyday lives • The benefits and drawbacks to using AI technologies • The impact the use of autonomy can have on the economy with regards to productivity and employment • The ethical issues surrounding the use of autonomous vehicles • The difference between Augmented Reality (AR) and Virtual Reality (VR) • How the use of virtual reality benefits individuals and society • How the use of augmented reality benefits individuals and society as a whole 	<ul style="list-style-type: none"> • The purpose and uses of management information systems and the benefits to using them • The purpose and use of payroll software and the benefits to using them • The use of management information systems and payroll software within an organisation • What is meant by an e-commerce service and how it benefits businesses and individuals • How mail is handled and understand how organisations use technology to enhance their service • The purpose of a registration system and why it's considered over a paper-based system • What is meant by accessibility and assistive technology • How hardware and software can be used to make services more accessible to a wider audience • What is meant by blockchain technology and Internet of Things (IoT) 	<p>improves clarity and usability.</p> <ul style="list-style-type: none"> • That form controls (e.g. drop-down lists, buttons, checkboxes) simplify data entry and navigation. • That print areas and customised layouts ensure professional outputs. • That validation rules and messages improve data accuracy and integrity. <p>Risks to Information By the end of this unit students will know and understand:</p> <ul style="list-style-type: none"> • What is meant by social engineering • How different social engineering techniques work, including blagging, phishing, and shouldering • Ways to reduce the risk of becoming a victim of social engineering attacks • The differences between white hat, black hat, and grey hat hackers • The range of malware types and the impact they can have on computer systems • Prevention methods used to reduce the risk of malware infection • The range of threats posed to a network and their potential consequences • Methods used to identify and prevent vulnerabilities in a network • That different prevention methods are more suitable for different types of threats • A range of emerging threats to cyber security and their characteristics • The impact of emerging cyber threats on individuals and society • Preventative measures that can be applied to reduce risks from emerging threats 	<p>Misuse Act, Copyright Designs and Patents Act, GDPR)</p> <ul style="list-style-type: none"> • What each piece of legislation allows and prohibits • Key terms such as e-waste, Internet of Things (IoT), and Green IT • The negative and positive environmental impacts of technology • Key terms such as digital divide, net neutrality, and fake news • The local and global impacts of the digital divide • How technology can affect mental health • Key terms such as streaming, downloading, and Video on Demand (VoD) • The devices used to consume digital media • How technology has affected traditional media industries and consumption patterns • What is meant by a digital footprint and the differences between active and passive footprints • How online identity and digital footprint can impact personal reputation and data security 	<ul style="list-style-type: none"> ○ Short-answer, scenario-based, and extended-response questions ○ Application of ICT knowledge to realistic case studies ○ Evaluation of ICT solutions, impacts, and preventative measures 	
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<p>Key Vocabulary</p>	<ul style="list-style-type: none"> • Services Keywords 	<ul style="list-style-type: none"> • Services Keywords 	<ul style="list-style-type: none"> • Risks to Information Keywords • Impact of Data Loss & Methods to Protect Information Keywords 	<ul style="list-style-type: none"> • Legal, Moral, Cultural Impacts of ICT Keywords 	<ul style="list-style-type: none"> • Vocational ICT Command Words 	