




Year 8 Autumn Term
'An ambitious curriculum that meets the needs of all'

Medium Term Planning – Computer Crime & Cyber Security

Curriculum Intent	In addition to working further on objectives from Year 7, pupils will be taught, following National Curriculum guidelines, the following this term:
Skills/National Curriculum Links	<p>Computing – KS3</p> <p>Key stage 3 Pupils should be taught to:</p> <ul style="list-style-type: none"> • design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems • understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem • use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions • understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal] • understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems • understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits • undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users • create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability • understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognize inappropriate content, contact and conduct and know how to report concerns.
Numeracy	
Literacy	<p>Vocabulary Tier 2: constitutes, secure, unauthorised, identify, construction</p> <p>Vocabulary Tier 3: Phishing, hacking, malware, virus, Trojan, logic bomb, geo-tagging, data harvesting, cybercrime, RSI, copyright infringement, e-waste, peer-to-peer, client-server, transmission</p> <p>Reading: Presentations, worksheets, and homework</p> <p>Writing: complete worksheets and skill task</p> <p>Oracy: learn how to pronounce difficult or new keywords</p> <p>SMSC: Understand identity theft, how the online world can be fun but dangerous if not used sensibly</p> <p>PSHE: Understand how the economy is impacted by cyber crime</p> <p>Careers: Cyber security</p> <p>Literacy: literacy slide will provide a definition of the keyword, antonym and synonym</p>
Adaptation	Throughout this topic, quality first teaching will provide differentiation:
QFT/SEND Provision	<p>By product: Learning will produce work on a variety of different levels, a mix of individual, think pair share, designing original mats, Q&A with teacher, teacher marking and self-marking.</p> <p>By resource: presentations, worksheets with extension tasks</p> <p>By Intervention: by providing different levels of supervision/support, seating plan, use of TA</p> <p>By Progressive Questioning: exploring pupils' understanding through interactive dialogue.</p> <p>By Grouping: according to prior attainment, gender, social preference, preferred learning style.</p> <p>By Task: Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range.</p> <p>By Offering Optional Activities: In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p>

Implementation Curriculum Delivery	To be able to:			
Learning Outcomes (Knowledge)	Computer Crime and Cyber Security	Email Scams - Phishing		Identify common types of computer crime Look at examples of computer crime on the Internet Learn about different types of email scam Recognise the signs of fraudulent emails
		Computer Crime and Malware		Understand the word Malware Understand origins of Trojan Horse Be able to identify and avoid Malware
		Hacking		Learn about the Computer Misuse Act – which makes certain activities illegal Look at examples of computer misuse Understand what is meant by hacking
		Hacking - Malware		Understand what is meant by malware Learn ways to protect yourself from malware and hacking
		Protecting personal data		Be aware of who might hold personal data about you Discuss the need for various organisations to hold data about you Be aware of the possibility of identity theft Know how to minimize the chance of identity theft
		Copyright		Learn about Copyright law, what it says and what it means Look at examples of copyright infringement Understand the damage that illegal copying does to individuals, companies and society Compare copyright infringement with plagiarism
		Health and Safety		Learn about some of the common health and safety problems associated with computer use Learn ways of avoiding these problems Learn about Health and Safety law
Current learning to be developed in the future within:	Linking to year 7 Using computer safely, effectively and responsibly, build on this topic by looking at cyber security and how to keep personal data safe and the consequences of breaking the computer misuse act, copyright and plagiarism.			
Assessment	<ul style="list-style-type: none">Refer to assessment maps for formative and summative assessment opportunities.			
Impact	<ul style="list-style-type: none">Learning will be tested during Summative Assessment 1.Assessment results will indicate pupils emerging, developing, securing or mastering.Data review documentation will indicate if pupils are underachieving, meeting or exceeding MEG grade.In line with the departmental marking policy, quality written feedback will be provided for the specified marked piece			

