

Middlezoy and Othery Primary Computing

Technology is developing and is a huge part of today's society. Pupils will develop many skills such as problem solving, using logical reasoning, communicating through technology, presenting their work using various software, creating charts and navigating the online world safely and confidently.

Digital Literacy

Key Stage One		Lower Key Stage Two		Upper Key Stage Two	
Knowledge	<ul style="list-style-type: none"> How did people communicate before computers, laptops and ipads. How do you keep yourself safe? 	<ul style="list-style-type: none"> Who invented the email? When was the first email sent? Who invented the internet? How are websites and search engines different? 		<ul style="list-style-type: none"> What impact does emailing have on today's society? How has the internet changed over time? How do you know data is accurate? 	
Skills	<p>D1 To recognise common uses and purposes of technology beyond school.</p> <p>D2 Use Technology safely and respectfully</p> <p>D3 Keep information privately</p> <p>D4 Identify where to go for help / support when they have concerns</p>	<p>D1 Understand how internet offers opportunities for communication and collaboration.</p> <p>D2 Use videoconferencing across the curriculum to explain world view as well as understanding of technology.</p> <p>D3 Follow a simple search to find specific information from a web site safely.</p> <p>D4 Appreciate how results are selected and ranked. D5 Find and use appropriate information. Identify how different web pages are organised e.g. graphics, hyperlinks, text.</p>		<p>D1 Share and exchange their ideas using e-mail and electronic communication- inside the school environment. D2 Talk about the different forms of electronic communication and web tools and discuss appropriateness of using different tools in different contexts and their advantages and disadvantages.</p> <p>D3 Recognise that the Internet may contain material that is irrelevant, bias, implausible and inappropriate.</p> <p>D4 Understand issues of copyright and how they apply to their own work.</p> <p>D5 To demonstrate knowledge of e-safety and the consequences of inappropriate online activity</p> <p>D6 Use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data. D7 Pupils collaborate on a project using a range of web tools to support their work- including, but not limited to google docs / sites / wikis.</p>	
Vocabulary	<p>technology purposes E-safety cyberbullying personal information private</p>	<p>Tier 2: Internet, communicate, results, website, address</p> <p>Tier 3: World Wide Web (WWW) navigate web page dynamics search engine</p>	<p>trustworthy digital advert browser secure plagiarism privacy citation/cite,</p>	<p>Previous tier 2 and 3 vocabulary LKS2.</p> <p>Tier 2: communication environment sources validity data viewpoints collaborate</p>	<p>Tier 3: electronic communication implausible copyright web tools authority sponsored link advertising publish spam virus</p>

Computer Science			
	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Skills	C1 Understand the purpose of a range of different technology, e.g. tablets, laptops, microphones, cameras etc. C2 To understand what algorithms are and how we use them	C1 Design and create a range of programs, systems and content	C1 Develop understanding of how technology works; how computers process instructions and commands, including the use of coding languages. (Scratch) C2 Deconstruct and investigate the effect of changing variables in simulations. (Scratch and Program) C3 Use assisted programming software, then more complex programming software which interacts with external controllers, and elements on screen, creating algorithms and using logic and calculations. (program)
Vocabulary	Technology tablets laptops microphone	applications platform variables investigation	script gradient animate animation iteration transition
Skills	C3. Create and debug simple programs. (Beebots). C4 Create precise and unambiguous instructions C5 Use logical reasoning to predict behaviour of simple programmes	C2 Design, write and debug programs that accomplish specific goals. (Scratch) C3 To use logical reasoning to explain how some simple algorithms work. C4 Create, edit and refine more complex sequences of instructions for a variety of programmable devices. (Scratch) C5 Use templates on a computer to create a game, which can be controlled by external inputs, changing parameters and algorithms and investigating the effect this has on the response. (Scratch)	
Vocabulary	Algorithms Debug Data Program precise logical reasoning evaluate, arrow buttons	clear screen (sc) variable rotate sprite block background/backdrop pros, cons, decompose logical sequence flowchart sprite variables	
Skills		C6 Work with various forms of input and output. C7 Understand that ICT allows for situations to be modelled which it would be impractical to try out in real life and investigate the effect of changing variables in these simulations	

Vocabulary		input output variables simulations, impractical inappropriate investigate	
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Information Technology

Key Stage One		Lower Key Stage Two	Upper Key Stage Two
Skills	I1 To use technology purposefully to create digital content, begin to save and retrieve pictures and text (PowerPoint, Microsoft Word – children will need to already have prior knowledge of login on to a laptop, locating and launching the programs needed)	I1 Know that ICT enables access to a wider range of information & tools to help find specific information quickly.	
Vocabulary	Word processor launch type shift key caps lock undo, redo, bold, italic, edit, backspace, arrow keys, format, font, print, layout, insert.	Search browsers,	
Skills		I2 Produce work using a computer, using more advanced features of programs and tools. (Microsoft, Publisher) - Use desk top publishing tools effectively and understand the differences between a word processor and desk top publisher. I3 Work collaboratively to create documents, including simple presentations.	I2 Use technology to present their work, showing an increasing degree of skill and using advanced features of software and tools. (publisher, iMovie etc) Select tools which they can use to help them achieve a specific aim and justify these choices to others. I3 Understand the importance of evaluation and adaptation of individual features to enhance the overall product. Pupils continue to use, search, enter data into and create their own databases.
Vocabulary		align copyright bullets review spelling spellcheck add to dictionary highlight, theme slide audio embed	production audio and video segments timeline transitions publish convert
Skills	<ul style="list-style-type: none"> • I4 Begin to use an appropriate search engine supported by an adult. (google, yahoo, Bing and Kidrex) • Use navigation skills to access appropriate parts of a website. • Follow age-appropriate links provided by the teacher to research information. 		

Vocabulary	Search engine search engine browser toolbar research, layout appropriate link,	webpage digital footprint trail online website content keywords.		
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2. Support

https://www.stem.org.uk/resources/search?f[0]=field_subject:92	STEM: Computing resources linked to NC objectives. Teaching notes, activities and worksheet to enable to complete objectives not just on digital devices.
https://www.twinkl.co.uk/resources/planit-primary-teachingresources/planit-computing-primary-teaching-resources	Planit Computing scheme of work (Twinkl) for help with resources/planning/progression.
http://www.sketchnation.com/lesson_ideas_storytelling.html	Sketch nation
https://www.childnet.com/	Childnet International, a non-profit organisation working with others to help make the internet a great and safe place for children.

3. Vocabulary: Glossary of Terms and Progressive Vocabulary Map

Glossary of Computing terms

Digital literacy	Individual's ability to find, evaluate, and compose clear information through writing and other mediums on various digital platforms.
Computer science	It is the study of both computer hardware and software design. It encompasses both the study of theoretical algorithms and the practical problems involved in implementing them through computer hardware and software.
Information technology	It is the use of computers to store, retrieve, transmit, and manipulate data, or information , often in the context of a business or other enterprise.
data	A structured set of numbers, representing digitised text, images, sound or video, which can be processed or transmitted by a computer.
debug	The process of identifying and removing errors from instructions or programs.
program	A stored set of instructions encoded in a language understood by the computer that does some form of computation, processing input and / or stored data to generate output.
Information	The meaning or interpretation given to a set of data by its users, or which results from data being processed.
internet	The global collection of computer networks and their connections, all using shared protocols (TCP/IP - transmission control protocol/internet protocol) to communicate.
e-safety	This is how to make sure you are safe when using the Internet.
Web browser	This is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer , Google Chrome,
World Wide Web	A service provided by computers connected to the internet (web servers), in which pages of hypertext (web pages) are transmitted to users; the pages typically include links to other web pages and may be generated by programs automatically.
Software	Computer programs, including both application software (such as office programs, web browsers, media editors and games) and the computer operating system. The term also applies to 'apps' running on mobile devices and to web-based services.
Hardware	The machines, wiring, and other physical components of a computer or other electronic system