

# Year 4 Computing Overview - Information Tech

Computing Strand	NC Objectives	Skills/Knowledge	Date covered			
Word Processing/ Typing	Co2/1.6 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	<ul style="list-style-type: none"> <li>I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets.</li> <li>Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text</li> <li>Use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology</li> </ul>				
Data Handling		<ul style="list-style-type: none"> <li>I can create my own online multiple choice questionnaire.</li> <li>I can input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts.</li> <li>I understand how data is collected.</li> </ul>				
Presentations, web design and eBook Creation		<ul style="list-style-type: none"> <li>I can create an interactive quiz eBook introducing hyperlinks.</li> <li>I can create an eBook with text, images and sound.</li> <li>I can create a presentation demonstrating my understanding with a range of media.</li> <li>I can create a digital timeline/mindmap and include different media - sound and video.</li> </ul>				
Animation		<ul style="list-style-type: none"> <li>I can take multiple animations of a character I have created and edit them together for a longer video.</li> <li>I can use software to create a 3D animated story.</li> <li>I can use line draw tool to create animations.</li> </ul>				
Video Creation		<ul style="list-style-type: none"> <li>I can add music and sound effects to my films</li> <li>I can add animated titles and transitions</li> <li>I can add simple subtitles to a video clip.</li> <li>I can use confidently use green screen adding animated backgrounds.</li> </ul>				
Photography and Digital Art		<ul style="list-style-type: none"> <li>I can enhance digital images and photographs using crop, brightness, contrast &amp; resize</li> <li>I can manipulate shapes to create digital art.</li> <li>I can draw a series of images and export as an animated GIF</li> </ul>				
Augmented Reality and Virtual Reality		<ul style="list-style-type: none"> <li>I can create my own 360 video.</li> <li>I can use the camera to create a 360 image.</li> <li>I can add multiple objects into my surroundings through AR to explain a concept.</li> </ul>				
Sound		<ul style="list-style-type: none"> <li>Edit sound effects for a purpose.</li> <li>Create a simple four chord song following the correct rhythm.</li> <li>I can record a radio broadcast or audiobook.</li> </ul>				

# Year 4 Computing Overview - Computer Science

Computing Strand	NC Objectives	Skills/Knowledge	Date covered			
Computational Thinking	<ul style="list-style-type: none"> <li>Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> </ul>	<ul style="list-style-type: none"> <li>I can use abstraction to focus on what's important in my design</li> <li>I can write increasingly more precise algorithms for use when programming.</li> <li>I can use simple selection in algorithms</li> <li>I can use logical reasoning to detect and correct errors in programs</li> </ul>				
Coding and Programming	<ul style="list-style-type: none"> <li>Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> <li>Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</li> </ul>	<ul style="list-style-type: none"> <li>I can use simple selection in programs</li> <li>I can work with various forms of output</li> <li>I can use logical reasoning to systematically detect and correct errors in programs</li> <li>I can work with various forms of output</li> </ul>				
Computer Networks	<ul style="list-style-type: none"> <li>Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> </ul>	<ul style="list-style-type: none"> <li>I understand that servers on the Internet are located across the planet</li> <li>I understand how email is sent across the Internet</li> <li>I understand how the Internet enables us to collaborate</li> </ul>				

## Digital Literacy/ESafety - Education For a Connected World Objectives

<u>NC Objectives</u>	<u>Year 4</u>	<u>Skills</u>	<u>Date Covered</u>			
Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/ unacceptabl e behaviour; identify a range of ways to report concerns about content and contact	Self Image and Identity	<ul style="list-style-type: none"> <li>• I can explain how my online identity can be different to the identity I present in 'real life'</li> <li>• Knowing this, I can describe the right decisions about how I interact with others and how others perceive me.</li> </ul>				
	Online Relationships	<ul style="list-style-type: none"> <li>• can describe strategies for safe and fun experiences in a range of online social environments</li> <li>• I can give examples of how to be respectful to others online.</li> </ul>				
	Online Reputation	<ul style="list-style-type: none"> <li>• I can describe how others can find out information about me by looking online.</li> <li>• I can explain ways that some of the information about me online could have been created, copied or shared by others.</li> </ul>				
	Online Bullying	<ul style="list-style-type: none"> <li>• I can identify some online technologies where bullying might take place.</li> <li>• I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</li> <li>• I can explain why I need to think carefully about how content I post might affect others, their feelings and how it may affect how others feel about them (their reputation).</li> </ul>				

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<p>Co2/1.4 understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration</p> <p>Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</p>	Managing Online Information	<ul style="list-style-type: none"> <li>I can analyse information and differentiate between 'opinions', 'beliefs' and 'facts'. I understand what criteria have to be met before something is a 'fact'.</li> <li>I can describe how I can search for information within a wide group of technologies (e.g. social media, image sites, video sites).</li> <li>I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online.</li> <li>I can explain that some people I 'meet online' (e.g. through social media) may be computer programmes pretending to be real people.</li> <li>can explain why lots of people sharing the same opinions or beliefs online does not make those opinions or beliefs true.</li> </ul>			
	Health ,Well-being and Lifestyle	<ul style="list-style-type: none"> <li>I can explain how using technology can distract me from other things I might do or should be doing.</li> <li>I can identify times or situations when I might need to limit the amount of time I use technology.</li> <li>I can suggest strategies to help me limit this time.</li> </ul>			
	Privacy and Security	<ul style="list-style-type: none"> <li>I can explain what a strong password is.</li> <li>I can describe strategies for keeping my personal information private, depending on context.</li> <li>I can explain that others online can pretend to be me or other people, including my friends</li> <li>I can suggest reasons why they might do this</li> <li>I can explain how internet use can be monitored.</li> </ul>			
	Copyright and Ownership	<ul style="list-style-type: none"> <li>When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it.</li> <li>I can give some simple examples.</li> </ul>			