

## ICT and Computing Year Four MTP

Term	Overview	National Curriculum Objectives	Target Tracker Statements	Recommended programs/software
Autumn 1	<b><u>Health, Well-being and Lifestyle</u></b> Teaching children to become responsible users of the internet and other online technologies. Children will be able to tell you the impact that technology has on health, well-being and lifestyle including understanding negative behaviours and issues amplified and sustained by online technologies and the strategies for dealing with them.	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>Project Evolve &gt; Year Four &gt; Health, Well-being and Lifestyle</li> </ul>
	<b><u>The Internet</u></b> Learners will apply their knowledge and understand of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.	<ul style="list-style-type: none"> <li>Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web (CS)</li> <li>Understand the opportunities they offer for communication and collaboration (DL)</li> <li>Use search technologies effectively (IT)</li> <li>Be discerning in evaluating digital content (DL)</li> <li>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>Understand what servers are and how they provide services to a network (Networks)</li> <li>Understand how results are selected and ranked by search engines (Net Searching)</li> </ul>	<ul style="list-style-type: none"> <li>National Centre for Computing Education Year 4</li> <li>Various websites</li> </ul>

Autumn 2	<b><u>Online Relationships</u></b> Teaching children to become responsible users of the internet and other online technologies. Children will learn about relationships and behaviours that may lead to harm and how positive online interaction can empower and amplify voice.	<ul style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>• Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Evolve &gt; Year Four &gt; Online Relationships</li> </ul>
	<b><u>Audio editing</u></b> Learners will identify the input device and output devices required to work with sound digitally. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, learners will use programs to produce a podcast, which will include editing their work, adding tracks and opening and saving audio files.	<ul style="list-style-type: none"> <li>• 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 (IT)</li> </ul>	<ul style="list-style-type: none"> <li>• Use other input devices such as cameras or sensors (Computers)</li> <li>• With support select and use a variety of software on a range of digital devices (Using Computer)</li> <li>• With support select, use and combine a variety of software on a range of digital devices to accomplish given goals (Using Computer)</li> </ul>	<ul style="list-style-type: none"> <li>• National Centre for Computing Education Year 4</li> <li>• Audacity</li> </ul>
Spring 1	<b><u>Online Bullying</u></b> Teaching children to become responsible users of the internet and other online technologies. Children will learn strategies for effective reporting and intervention and how bullying and other aggressive behaviour relates to legislation.	<ul style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>• Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Evolve &gt; Year Four &gt; Online Bullying</li> </ul>

	<p><b><u>Introduction to variables</u></b> Learners will learn that variables are used to store information such as game scores and times. Children will get the computer to use the information to display targets or messages. Children will use variables to build some fun games including: letting payers earn points by popping balloons, earn or lose point by choosing different foods and making a pirate-treasure hunt where you can earn or lose points or even have the entire score wiped out.</p>	<ul style="list-style-type: none"> <li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS)</li> <li>• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS)</li> <li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS)</li> </ul>	<ul style="list-style-type: none"> <li>• Decompose programs into smaller parts (Coding)</li> <li>• Use logical reasoning to detect and correct errors in algorithms and programs (Coding)</li> <li>• Select, use and combine a variety of software, systems and content that accomplish given goals (Coding)</li> </ul>	<ul style="list-style-type: none"> <li>• Discovery Education – Level 4 (Introduction to variables)</li> </ul>
Spring 2	<p><b><u>Self-image and Identity</u></b> Teaching children to become responsible users of the internet and other online technologies. Children will recognise that there may be people online who could make someone feel sad, embarrassed or upset. If this was to happen, children will know when and how to speak to an adult that they trust and how they can help. Shaping online identities and how media impacts on gender and stereotypes.</p>	<ul style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>• Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Evolve &gt; Year Four &gt; Self-image and Identity</li> </ul>
	<p><b><u>Repetition and Loops</u></b> Learners will understand that sometimes they may want the computer to repeat an instruction. They will learn to use loops to save having to write the same code over again and again. Learners will show that loops can be nested inside each other to form more complex repetitions. They will use loops to make their code more efficient.</p>	<ul style="list-style-type: none"> <li>• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS)</li> <li>• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS)</li> <li>• Use logical reasoning to explain how some simple</li> </ul>	<ul style="list-style-type: none"> <li>• Decompose programs into smaller parts (Coding)</li> <li>• Use logical reasoning to detect and correct errors in algorithms and programs (Coding)</li> <li>• Select, use and combine a variety of software, systems and content that accomplish given goals (Coding)</li> </ul>	<ul style="list-style-type: none"> <li>• Discovery Education – Level 4 (Repetition and Loops)</li> </ul>

		algorithms work and to detect and correct errors in algorithms and programs (CS)		
Summer 1	<b><u>Managing Online Information</u></b> Teaching children to become responsible users of the internet and other online technologies. Children will learn strategies for effective searching, critical evaluation and ethical publishing.	<ul style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> <li>• Be discerning in evaluating digital content (DL)</li> <li>• Appreciate how [search] results are selected and ranked (CS)</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>• Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Evolve &gt; Year Four &gt; Managing Online Information</li> </ul>
	<b><u>Photo Editing</u></b> In this unit, learners will develop their understanding of how digital images can be changes and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have and evaluate the effectiveness of their choices.	<ul style="list-style-type: none"> <li>• 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 (IT)</li> </ul>	<ul style="list-style-type: none"> <li>• With support select and use a variety of software on a range of digital devices (Using Computer)</li> <li>• With support select, use and combine a variety of software on a range of digital devices to accomplish given goals (Using Computer)</li> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• National Centre for Computing Education Year 4</li> <li>• Paint.NET</li> </ul>
Summer 2	<b><u>Privacy and Security</u></b> Teaching children to become responsible users of the internet and other online technologies. Behavioural and technical strategies to limit impact on privacy and protect data and systems against compromise.	<ul style="list-style-type: none"> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology responsibly and understand that communication online may be seen by others (E-Safety)</li> <li>• Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies (E-Safety)</li> </ul>	<ul style="list-style-type: none"> <li>• Project Evolve &gt; Year Four &gt; Privacy and Security</li> </ul>

	<p><b><u>Data Logging</u></b></p> <p>In this unit, learners will consider how and why data is collected over time. Learners will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Learners will collect data as well as access data captured over long periods of time. They will look at data points, data sets, and logging intervals. Learners will spend time using a computer to review and analyse data. Towards the end of the unit, learners will pose questions and then use data loggers to automatically collect the data needed to answer those questions.</p>	<ul style="list-style-type: none"> <li>• 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 (IT)</li> </ul>	<ul style="list-style-type: none"> <li>• Use other input devices such as cameras or sensors (Computers)</li> <li>• With support select and use a variety of software on a range of digital devices (Using Computer)</li> <li>• With support select, use and combine a variety of software on a range of digital devices to accomplish given goals (Using Computer)</li> </ul>	<ul style="list-style-type: none"> <li>• National Centre for Computing Education Year 4</li> <li>• Data loggers</li> </ul>
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