ICT and Computing Year Five MTP

Term	Overview	National Curriculum Objectives	Target Tracker Statements	Recommended programs/software
Autumn 1	**Health, Well-being and Lifestyle** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Understand the need to only select age appropriate content (E-Safety)	• Project Evolve > Year Five > Health, Well-being and Lifestyle
	Sharing Information In this unit, learners will develop their understanding of computer systems and how information is transferred between systems and devices. Learners will consider small-scale systems as well as large-scale systems. They will explain the input, output, and process aspects of a variety of different real-world systems. Learners will also take part in a collaborative online project with other class members and develop their skills in working together online.	• Understand computer networks including the internet; how they can provide multiple services, such as the world wide web (CS) • Understand the opportunities they offer for communication and collaboration (DL) • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Begin to use internet services to share and transfer data to a third party (Networks) • Independently select and use appropriate software for a task (Using Computer)	• National Centre for Computing Education Year 5 • Google Slides
Autumn 2	**Online Relationships** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Understand the need to only select age appropriate content (E-Safety)	• Project Evolve > Year Five > Online Relationships

		Video Production Learners will learn how to create short videos by working in pairs or groups. As they progress through this unit, they will be exposed to topic-based language and develop the skills of capturing, editing and manipulating video. Learners are guided with step-by-step support to take their idea from conception to completion. At the conclusion of this unit, learners will have the opportunity to reflect on and assess their progress in creating a video.	• 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)	• Independently select and use appropriate software for a task (Using Computer) • Independently select, use and combine a variety of software to design and create content for a given audience (Using Computer)	• National Centre for Computing Education Year 5 • Microsoft Photos • Video Pad • i-Movie
	Spring 1	**Online Bullying** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Understand the need to only select age appropriate content (E-Safety)	• Project Evolve > Year Five > Online Bullying
		Speed, direction and coordinates Computer programmers use numbers to set or change an object's properties. Learners will learn to change the object's co-ordinate position on screen, the direction that it faces or the speed at which it moves. Children will be able to make things go faster and slower, move in the exact direction that they want or appear in a precise location on the screen.	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS)	• Design, input and test an increasingly complex set of instructions to a program or device (Coding) • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems (Coding) • Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated (Coding) • Design, write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user (Coding) • Use logical reasoning to explain how increasingly complex	• Discovery Education – Level 5 (Speed, direction and coordinates)

			algorithms work to ensure a program's efficiency (Coding)	
Spring 2	**Self-image and Identity** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Understand the need to only select age appropriate content (E-Safety)	• Project Evolve > Year Five > Self-image and Identity
	Random numbers and simulation In this unit, children will apply knowledge of randomized code, heading and conditional events to make a game. They will learn that a simulation is a computer program which models something from real life and the benefits of being able to test how something might work, or practise a skill without taking any risks.	• Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (CS) • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output (CS) • Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (CS)	• Design, input and test an increasingly complex set of instructions to a program or device (Coding) • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems (Coding) • Design, write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user (Coding) • Use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency (Coding)	• Discovery Education – Level 5 (Random numbers and simulation)
Summer 1	**Managing Online Information** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL) • Be discerning in evaluating digital content (DL)	• Understand the need to only select age appropriate content (E-Safety) • Use filters in search technologies effectively (Net Searching) • Use filters in search technologies effectively and appreciates how results are selected and ranked (Net Searching)	• Project Evolve > Year Five > Managing Online Information

		• Appreciate how [search] results are selected and ranked (CS)		
	Vector drawing In this unit, learners will start to create vector drawings. They learnt how to use different drawing tools to help them create images. Learners recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Learners layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work.	• 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)	• Independently select and use appropriate software for a task (Using Computer) • Independently select, use and combine a variety of software to design and create content for a given audience (Using Computer)	• National Centre for Computing Education Year 5 • Google Drawings • Googles Slides • Vectr
Summer 2	**Privacy and Security** 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.	• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (DL)	• Understand the need to only select age appropriate content (E-Safety)	• Project Evolve > Year Five > Privacy and Security
	Flat-file Databases This unit looks at how a flat-file database can be used to organise data in records. Pupils use tools within a database to order and answer questions about data. They create graphs and charts from their data to help solve problems. They use a real-life database to answer a question and present their work to others.	• 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)	• Independently select and use appropriate software for a task (Using Computer) • Independently select, use and combine a variety of software to design and create content for a given audience (Using Computer)	• National Centre for Computing Education Year 5 • j2data Database • Purple Mash – 2Chart