

Computing Curriculum Overview

Year 4

Term	Computing Topic	Knowledge and understanding	What I will know and remember	Vocabulary
<p>Online Safety KS2: Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>				
1	<p>Unit 4.1 - Computing systems and networks - The internet</p>	<p>I can 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>I can describe how networks physically connect to other networks. I can recognise how networked devices make up the internet. I can outline how websites can be shared via the World Wide Web. I can describe how content can be added and accessed on the World Wide Web. I can recognise how the content of the WWW is created by people.</p>	<p>Browser Download Files Links Network security Ownership Permission Router Route tracing Routing Web page/web address World Wide Web</p>
<p>Online Safety: Self Image and Identity (Education For A Connected World)</p>				
<p><u>Working towards</u></p>		<p><u>End of unit assessment</u> <u>Working at</u></p>	<p><u>Working above</u></p>	

2	Unit 4.5 - Programming A: Repetition in Shapes	<p>I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>I can use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p> <p>I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p>I can identify that accuracy in programming is important.</p> <p>I can create a program in a text-based language.</p> <p>I can explain what 'repeat' means.</p> <p>I can modify a count-controlled loop to produce a given outcome.</p> <p>I can decompose a program into parts.</p> <p>I can create a program that uses count-controlled loops to produce a given outcome.</p>	<p>Code snippet Count-controlled loop Decompose Logo Procedure Trace Turtle Variable Repeat/repetition Value</p>
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Online Safety: Online Relationships
(Education For A Connected World)

<u>Working towards</u>	<u>End of unit assessment</u> <u>Working at</u>	<u>Working above</u>
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3	Unit 4.4 - Data and information, Data Logging	I can 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	<p>I can explain that data gathered over time can be used to answer questions.</p> <p>I can use a digital device to collect data automatically.</p> <p>I can explain that a data logger collects 'data points' from sensors over time.</p> <p>I can use data collected over a long duration to find information.</p> <p>I can identify the data needed to answer questions.</p> <p>I can use collected data to answer questions.</p>	<p>Analysing</p> <p>Capture</p> <p>Collecting</p> <p>Conclusion</p> <p>Data point</p> <p>Data set</p> <p>Export</p> <p>Import</p> <p>Input device</p> <p>Interval</p> <p>Review</p> <p>Sensors</p> <p>Software</p> <p>Table</p>
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Online Safety: Online Reputation & Online Bullying
(Education For A Connected World)

<u>Working towards</u>	<u>End of unit assessment</u> <u>Working at</u>	<u>Working above</u>
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4	Unit 4.2 - Creating media - Audio editing	I can 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	I can identify digital devices that can record sound and play it back and how they record and playback sounds. I can plan and write content for a podcast and suggest improvements by editing. I can save and open a digital recording as a file and why this is important. I can explain that digital recordings need to be exported to share them.	Audio Editing Export Microphone MP3 Playback Podcast Time shift
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Online Safety: Managing Online Information
(Education For A Connected World)

<u>Working towards</u>			<u>End of unit assessment</u> <u>Working at</u>	<u>Working above</u>
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5	Unit 4.6 - Programming B: Repetition in games	I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. I can use sequence, selection, and repetition in programs; work with variables and various forms of input and	I can develop the use of count-controlled loops in a different programming environment. I can explain that in programming there are infinite loops and count controlled loops. I can develop a design which includes two or more loops which run at the same time. I can modify an infinite loop in a given program. I can design a project that includes repetition.	Count-controlled loop Duplicate Infinite loop Modify Refine Repetition
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		output. I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms	I can create a project that includes repetition.	
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Online Safety: Health, Wellbeing and Lifestyle
(Education For A Connected World)

End of unit assessment				
<u>Working towards</u>	<u>Working at</u>			<u>Working above</u>

6	Unit 4.3 - Creating media - Photo editing	I can 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. Use search technologies effectively.	I can explain that digital images can be changed. I can change the composition of an image. I can describe how images can be changed for different uses. I can make good choices when selecting different tools. I can recognise that not all images are real. I can evaluate how changes can improve an image.	Adjustments Arrange Copyright Clone Composition/composite Crop Flip Hue/saturation Pixels Publication Recolour Retouch
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Online Safety: Privacy and Security & Copyright and Ownership
(Education For A Connected World)

Working towards

End of unit assessment

Working at

Working above