



Computing	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cycle A 2022/2023	COMPUTING SYSTEMS AND NETWORKS The internet To describe how networks physically connect to other networks To recognise how networked devices make up the internet To outline how websites can be shared via the World Wide Web To describe how content can be added and accessed on the World Wide Web To recognise how the content of the WWW is created by people To evaluate the consequences of unreliable content	DATA AND INFORMATION Data logging To explain that data gathered over time can be used to answer questions To use a digital device to collect data automatically To explain that a data logger collects ‘data points’ from sensors over time To use data collected over a long duration to find information To identify the data needed to answer questions To use collected data to answer questions	CREATING MEDIA Audio editing To identify that sound can be digitally recorded To use a digital device to record sound To explain that a digital recording is stored as a file To explain that audio can be changed through editing To show that different types of audio can be combined and played together To evaluate editing choices made Online safety Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of	CREATING MEDIA Photo editing To explain that digital images can be changed To change the composition of an image To describe how images can be changed for different uses To make good choices when selecting different tools To recognise that not all images are real To evaluate how changes can improve an image Online safety Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and	PROGRAMMING A Repetition in shapes To identify that accuracy in programming is important To create a program in a text-based language To explain what ‘repeat’ means To modify a count-controlled loop to produce a given outcome To decompose a program into parts To create a program that uses count-controlled loops to produce a given outcome	PROGRAMMING B Repetition in games To develop the use of count-controlled loops in a different programming environment To explain that in programming there are infinite loops and count controlled loops To develop a design which includes two or more loops which run at the same time To modify an infinite loop in a given program To design a project that includes repetition To create a project that includes repetition



			ways to report concerns about content and contact. a reflect on their own digital footprint and behaviour online; b identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying; c agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords; d seek help from an adult when they see something that is unexpected or worrying;	identify a range of ways to report concerns about content and contact. e demonstrate understanding of age appropriate websites and adverts; f use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password		
Cycle B 2023/2024	COMPUTING SYSTEMS AND NETWORKS Sharing information To explain that computers can be connected together to form systems	CREATING MEDIA Video editing To recognise video as moving pictures, which can include audio To identify digital devices that can record video	CREATING MEDIA Vector drawing To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes	DATA AND INFORMATION Flat-file databases To use a form to record information To compare paper and computer-based databases	PROGRAMMING A Selection in physical computing To control a simple circuit connected to a computer To write a program that includes count-controlled loops	PROGRAMMING B Selection in quizzes To explain how selection is used in computer programs To relate that a conditional statement connects a



	<p>To recognise the role of computer systems in our lives To recognise how information is transferred over the internet To explain how sharing information online lets people in different places work together To contribute to a shared project online To evaluate different ways of working together online</p>	<p>To capture video using a digital device To recognise the features of an effective video To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video</p> <p>Online safety</p> <p>Children 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. They use search technologies effectively, appreciate how results are selected and ranked, and are discerning in</p>	<p>To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To evaluate my vector drawing</p> <p>Online safety</p> <p>Children 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. They use search technologies effectively, appreciate how results are selected and ranked, and are discerning in evaluating digital content.</p>	<p>To outline how grouping and then sorting data allows us to answer questions To explain that tools can be used to select specific data To explain that computer programs can be used to compare data visually To apply my knowledge of a database to ask and answer real-world questions</p>	<p>To explain that a loop can stop when a condition is met, eg number of times To conclude that a loop can be used to repeatedly check whether a condition has been met To design a physical project that includes selection To create a controllable system that includes selection</p>	<p>condition to an outcome To explain how selection directs the flow of a program To design a program which uses selection To create a program which uses selection To evaluate my program</p>
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		<p>evaluating digital content.</p> <p>a search for information using appropriate websites and advanced search functions within Google; b use strategies to check the reliability of information (cross-check with another source such as books); c talk about the way search results are selected and ranked; d check the reliability of a website, including the photos on site;</p>	<p>e tell you about copyright and acknowledge the sources of information; f use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.</p>			
<p>Cycle C 2024/2025</p>	<p>COMPUTING SYSTEMS AND NETWORKS</p> <p>Communication Online safety</p> <p>To identify how to use a search engine To describe how search engines select results To describe how search engines select results</p>	<p>CREATING MEDIA</p> <p>Web page creation</p> <p>To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright)</p>	<p>CREATING MEDIA</p> <p>3D modelling Online safety</p> <p>To use a computer to create and manipulate three-dimensional (3D) digital objects To compare working digitally with 2D and 3D graphics</p>	<p>DATA AND INFORMATION</p> <p>Spreadsheets</p> <p>To identify questions which can be answered using data To explain that objects can be described using data To explain that formula can be used</p>	<p>PROGRAMMING A</p> <p>Variables in games</p> <p>To define a ‘variable’ as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables</p>	<p>PROGRAMMING B</p> <p>Sensing</p> <p>To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use an conditional statement to</p>



	<p>To explain how search results are ranked To recognise why the order of results is important, and to whom To recognise how we communicate using technology To evaluate different methods of online communication</p> <p>Re-cap Online safety Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of ways to report concerns about content and contact. a reflect on their own digital footprint and behaviour online; b identify what is appropriate and inappropriate behaviour on the internet, recognising the term</p>	<p>To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people</p> <p>Online safety Online safety Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of ways to report concerns about content and contact.</p> <p>e demonstrate understanding of age appropriate websites and adverts; f use key vocabulary to demonstrate knowledge and understanding in this strand: safe, meet, accept, reliable, tell, online, trusted, adult,</p>	<p>To construct a digital 3D model of a physical object To identify that physical objects can be broken down into a collection of 3D shapes To design a digital model by combining 3D objects To develop and improve a digital 3D model</p>	<p>to produce calculated data To apply formulas to data, including duplicating To create a spreadsheet to plan an event To choose suitable ways to present data</p>	<p>To design a project that builds on a given example To use my design to create a project To evaluate my project</p>	<p>compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device</p>
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	cyberbullying; c agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords; d seek help from an adult when they see something that is unexpected or worrying;	information, safety, personal, internet, world wide web, communicate, message, social media, email, password				
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