

Progression through the Computing Curriculum

	Year Rec / One: Digital writing	Year Two: Digital music	Year Three: Desktop Publishing	Year Four: Audio production	Year Five: Introduction to vector graphics	Year Six: Web page creation
Creating media	<p>Pupils learn:</p> <ul style="list-style-type: none"> ● basic keyboarding skills. ● consider the impact of the choices they make. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use a computer to create music for a purpose. ● review and refine their work. ● recognise that information on a computer can be saved and stored, retrieved, re-edited, resaved, shared, and viewed worldwide. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use a template and consider how different templates suit different purposes. ● use placeholders to organise text and manipulate images. ● recognise how choices are used for particular purposes. ● consider the benefits of using a DTP application. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● edit audio using an audio editor. ● consider the result of their editing choices. ● save and export an audio file. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● create graphical objects on a computer screen using a vector application by selecting, duplicating, modifying, grouping, and deleting objects. ● recognise that objects are layered and can be scaled without impact on quality. ● evaluate their choices. 	<p>Pupils learn to</p> <ul style="list-style-type: none"> ● recognise components of a web page layout and add text, images, navigation, hyperlinks, and embedded content on a template to create their own web page. ● consider the ownership and use of images (copyright). ● recognise the implications of linking to content owned by others.

Education for a connected world links	<p>Privacy and security</p> <ul style="list-style-type: none"> ● I can give reasons why I should only share information with people I choose to and can trust. (Y1) 	<p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I know that work I create belongs to me. 	<p>Managing online information</p> <ul style="list-style-type: none"> ● I can use key phrases in search engines. ● I can use search technologies effectively. <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● 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. ● I can demonstrate the use of search tools to find and access online content which can be reused by others 	<p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can explain why copying someone else's work from the Internet without permission can cause problems (Y3) ● I can give examples of what those problems might be (Y3) ● 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 (Y4) ● I can give some simple examples (Y4) 		<p>Online relationships</p> <ul style="list-style-type: none"> ● I can use the Internet with adult support to communicate with people I know. (EY-7) ● Managing information online ● I can navigate online content, websites, or social media feeds using more sophisticated tools to get to the information I want (e.g., menus, sitemaps, breadcrumb trails, site search functions). (11-14) <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can explain why copying someone else's work from the Internet without permission can cause problems. ● I can give examples of what those problems might be. ● 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. ● I can give some simple examples. ● I can assess and justify when it is acceptable to use the work of others.
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						<ul style="list-style-type: none"> ● I can give examples of content that is permitted to be reused. ● I can demonstrate the use of search tools to find and access online content which can be reused by others. ● I can demonstrate how to reference and acknowledge sources I have used from the Internet. ● I can explain the principles of fair use and apply this to case studies. (11-14)
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	Year Rec / One: Technology around us	Year Two: IT around us	Year Three: Connecting computers	Year Four: The Internet	Year Five: Systems and searching	Year Six: Communication and collaboration
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Systems and networks	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify technology and describe how it helps us. ● identify the main parts of a computer. ● use a mouse or drag pad to open a program, then create and edit an image. ● use a keyboard to add text to an image. ● recognise the need to keep safe when using computers and identify rules in school which help us to stay safe when using computers. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the uses and features of information technology. ● identify IT devices and explain how they benefit us, both in school and beyond. ● explain how to use information technology safely. ● recognise that choices are made when using information technology. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain how digital devices accept inputs, produce outputs and follow a process. ● identify the similarities and differences between using digital devices. and non-digital tools. ● explain how a computer network can be used to share information. ● explore how digital devices can be connected. ● explain the benefits of a computer network. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the Internet is a network of networks and that it needs protection. ● understand the World Wide Web is part of the Internet and contains pages, and those pages can be made up of different types of media. ● recognise that people create different kinds of content on the World Wide Web, and there are rules to protect that content. ● Understand that not all content on the World Wide Web is true, and therefore it's important to think carefully before sharing 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise the role of computer systems in their lives. ● understand how information is transferred over the Internet. ● explain how sharing information online lets people in different places work together. ● contribute to a shared project online. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify how to use a search engine and compare results from different search engines. ● describe how search engines select and rank results. ● recognise why the order of search results is important and to whom. ● evaluate different methods of online communication.
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				or resharing content.		
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Education for a connected world links

Health, well-being and lifestyle

- I can identify rules that help keep us safe and healthy in and beyond the home when using technology
- I can give some simple examples

Copyright and ownership

- I know that the work I create belongs to me
- I can name my work so that others know it belongs to me

Health, well-being, and lifestyle

- I can identify rules that help keep us safe and healthy in and beyond the home when using technology.
- I can give some simple examples

Managing online information

- I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.
- I can explain what is meant by fake news, e.g., why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.

Self-image and identity

- I am aware that a person's online activity, history or profile (their 'digital personality') will affect the type of information returned to them in a search or on a social media feed and how this may be intended to influence their beliefs, actions and choices. (Y7)

Managing online information

- I can explain how search engine rankings are returned and can explain how they can be influenced (e.g. commerce,

Online reputation

- I can describe and assess the benefits and the potential risks of sharing information online.

Copyright and ownership

- I can assess and justify when it is acceptable to use the work of others.
- I can give examples of content that is permitted to be reused.

				<ul style="list-style-type: none">● I can describe ways of identifying when online content has been commercially sponsored or boosted (e.g. by commercial companies or by vloggers, content creators, or influencers).● I can describe how fake news may affect someone's emotions and behaviour and explain why this may be harmful.	sponsored results)(Y8)	
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	Year Rec / One: Programming A – Moving a robot	Year Two: Programming A – Robot algorithms	Year Three: Programming A: Sequencing in music	Year Four: Programming A: Repetition in shapes	Year Five: Programming- Selection in quizzes	Year Six: Programming A – Variables in games
Programming	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● predict the outcome of a command on a device. ● give commands to a partner. ● input a sequence of simple commands into a floor robot. ● plan and program a simple route for a floor robot. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● describe a series of instructions as a sequence and explain what happens if the order of instructions is changed. ● use logical reasoning to predict the outcome of a program (series of commands). ● design an algorithm. ● create, test and debug a program to control a floor robot to achieve a specific goal. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● use scratch blocks to control a sprite graphic onscreen. ● create a program following a design and explain how the program starts. ● recognise that a sequence of commands has an order. ● create a project from a task description. 	<p>Pupils learn to</p> <ul style="list-style-type: none"> ● create a program in a text-based language. ● use a count-controlled loop to produce a given outcome. ● use a procedure in a program. ● create a program that uses. count-controlled loops to produce a given outcome. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain how selection is used in computer programs. ● create a program with different outcomes using selection. ● explain how selection directs the flow of a program. ● design and create a program which uses selection. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● understand what a variable is (something that is changeable). ● explain why a variable is used in a program. ● improve a game by using variables. ● design and program a game which includes variables. ● evaluate their completed project.

	Year 1: Programming B - Introduction to animation	Year 2: Programming B- An Introduction to quizzes	Year 3: Creating media - Stop-frame animation	Year 4: Programming B: Repetition in games	Y 5: Programming A - Selection in physical computing	Y6 Creating media – 3D Modelling
Taught by Camden CLC	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● choose a command for a given purpose on a screen. ● sequence a series of commands on screen. ● identify the effect of changing a value within a programming block. ● explain that each onscreen sprite has its own instructions. ● design parts of a project ● design an algorithm and use it to create a program. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain that a sequence of commands has a start and an outcome. ● create a program using a given design. ● change a given design. ● create a program using their own design. ● debug and improve their design. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● explain that animation is a sequence of drawings or photographs. ● plan an animation. ● identify the need to work consistently and carefully, (using onion skinning) when creating an animation. ● review and improve an animation, adding other media and evaluating the impact. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● identify count-controlled loops. ● when to use a count-controlled and when to use an infinite loop ● modify an infinite loop in a given program. ● design and create a program that includes repetition. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● control a simple circuit, a microcontroller connected to a computer, ● write a program that includes count-controlled loops. ● explain that a loop can stop when a condition is met. ● explain that a loop can repeatedly check whether a condition has been met. ● design and create a physical computing project that includes selection. 	<p>Pupils learn to:</p> <ul style="list-style-type: none"> ● recognise that you can work in three dimensions on a computer. ● identify that digital 3D objects can be modified. ● recognise that objects can be combined in a 3D model. ● create a 3D model for a given purpose. ● plan and create their own 3D model.

Taught by Camden CLC				<p>Data logging</p> <ul style="list-style-type: none">● use a digital device to collect data automatically.● explain that a data logger collects 'data points' from sensors over time.● use data from sensors to answer questions		<p>Programming B</p> <ul style="list-style-type: none">● use a variable in an if, then, else statement to select the flow of a program.● use a conditional statement to compare a variable to a value.● design and develop a program to use inputs and outputs on a controllable device.
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Education for a connected world links</p>			<p>Managing online information</p> <ul style="list-style-type: none"> ● I can use key phrases in search engines. ● I can use search technologies effectively. <p>Copyright and ownership</p> <ul style="list-style-type: none"> ● I can explain why copying someone else's work from the Internet without permission can cause problems. ● I can give examples of what those problems might be. ● 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. ● I can give some simple examples. ● I can give examples of content that is permitted to be reused. ● I can demonstrate the use of search tools to find and access online content which can be reused by others. 			<p><i>3D Modelling</i></p> <p>Privacy and Security</p> <ul style="list-style-type: none"> ● I can describe strategies for keeping my personal information private, depending on context (Y4)
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