



Computing Skill Progression

EYFS	
Computer Systems and Networks – Technology Around Us	
<ul style="list-style-type: none"> • Understand that things created using technology belong to me. • Recognise that I can use the Internet to play and learn • Develop an interest in ICT by using age appropriate websites or programs • Recognise text, images and sound when using ICT 	
Creating Media – Photos and Video	
<ul style="list-style-type: none"> • Take a photograph and use it in an app • Use paint programs to create pictures and explore the paint and brush tools • Record and play a film • Move and resize images with my fingers or mouse. 	
Creating Media – Sound	
<ul style="list-style-type: none"> • Create a simple digital collage. • Record sounds with different resources • Find ways to change your voice (tube, tin can, shouting to create an echo) • Record sounds/voices in storytelling and explanations 	
Data and information – Grouping Data	
<ul style="list-style-type: none"> • Collect information as photos or sound files • Use a simple pictogram or set of photos to count and organise information • Sort physical objects, take a picture and discuss what I have done. • Present simple data on a digital device. 	
Programming	
<ul style="list-style-type: none"> • Follow simple oral algorithms • Use simple software to make things happen • Input a simple sequence of commands to control a digital device with support (Bee Bot) • Spot simple patterns • Sequence simple familiar tasks 	
Multimedia	
<ul style="list-style-type: none"> • Use a mouse, touch screen or appropriate access device to target and select options on screen • Begin to use a keyboard • Type letters with increasing confidence using a keyboard and tablet. • Play on a touch screen game and use computers/keyboards/mouse in role play • Use a mouse to rearrange objects and pictures on a screen 	

Year 1	Year 2
Computer Systems and Networks – Technology Around Us	Creating Media – Digital Photography
<ul style="list-style-type: none"> • Understand that technology helps us. • Switch on and log in to a computer. 	<ul style="list-style-type: none"> • Talk about how to take a photograph. • Capture digital photos and talk about my experience.



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<ul style="list-style-type: none"> • Use a mouse to click and drag. • Use a mouse to open a program. • Type their name on a computer. • Use the shift key to type a capital letter. • Save work to a file. • Open work from a file. • Identify rules to keep us safe and healthy when we are using technology. 	<ul style="list-style-type: none"> • Explain the process of taking a good photograph. • Take photos in both landscape and portrait format. • Identify what is wrong with a photograph. • Improve a photograph by retaking it. • Experiment with different light sources. • Focus on an object. • Use a tool to achieve a desired effect. • Apply a range of photography skills to capture a photo. • Recognise which images have been changed.
<p>Creating Media – Digital writing</p>	<p>Data and information – Pictograms</p>
<ul style="list-style-type: none"> • Open a word processor. • Identify and find keys on a keyboard. • Enter text into a computer. • Use letter, number, and space keys. • Use backspace to remove text. • Type capital letters. • Identify the toolbar and use bold, italic, and underline. • Select a word by double-clicking . • Select all of the text by clicking and dragging. • Change the font. • Use 'undo' to remove changes. 	<ul style="list-style-type: none"> • Record data in a tally chart. • Enter data onto a computer. • Use a computer to view data in a different format. • Organise data in a tally chart. • Create a pictogram to arrange objects by an attribute. • Collect the data I need. • Create a pictogram and draw conclusions from it. • Use a computer program to present information in different ways. • Give simple examples of why information should not be shared.
<p>Programming – Moving a Robot</p>	<p>Programming – Introduction to Quizzes</p>
<ul style="list-style-type: none"> • Predict the outcome of a command on a device. • Match a command to an outcome. • Run a command on a device. • Follow an instruction. • Start a sequence from the same place. • Predict the outcome of a sequence involving forwards and backwards commands. • Explain what my program should do. • Choose the order of commands in a sequence. • Debug my program. 	<ul style="list-style-type: none"> • Identify the start of a sequence. • Show how to run my program. • Predict the outcome of a sequence of commands. • Change the outcome of a sequence of commands. • Tell the actions of a sprite in an algorithm. • Decide which blocks to use to meet the design. • Build the sequences of blocks I need. • Create an algorithm. • Build sequences of blocks to match my design. • Improve my project by adding features. • Debug.

Year 3	Year 4
<p>Computer Systems and Networks – Connecting Computers</p>	<p>Creating Media – Photo Editing</p>
<ul style="list-style-type: none"> • Explain that digital devices accept inputs. • Explain that digital devices produce outputs. 	<ul style="list-style-type: none"> • Identify changes that we can make to an image. • Explain the effect that editing can have on an image.



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<ul style="list-style-type: none"> ● Follow a process. ● Design a digital device. ● Recognise similarities between using digital devices and non-digital tools. ● Recognise different connections. ● Explain how messages are passed through multiple connections. ● Discuss why we need a network switch. ● Recognise that a computer network is made up of a number of devices. ● Explain the role of a switch, server, and wireless access point in a network. ● Identify networked devices around me. ● Identify the benefits of computer networks. 	<ul style="list-style-type: none"> ● Explain what has changed in an edited image. ● Change the composition of an image by selecting parts of it. ● Choose effects to make my image fit a scenario. ● Give examples of positive and negative effects that retouching can have on an image. ● Sort images into 'fake' or 'real' and explain my choices. ● Combine parts of images to create new images. ● Consider the effect of adding other elements to my work.
<p>Creating Media – Animation</p>	<p>Data and information – Data Logging</p>
<ul style="list-style-type: none"> ● Create an effective flip book—style animation. ● Explain how an animation/flip book works. ● Explain why little changes are needed for each frame. ● Create an effective stop frame animation. ● Create a storyboard. ● Review a sequence of frames to check my work. ● Improve my animation based on feedback. ● Add other media to my animation. 	<ul style="list-style-type: none"> ● Suggest questions that can be answered using a given data set. ● Identify data that can be gathered over time. ● Explain that sensors are input devices. ● Use data from a sensor to answer a given question. ● Identify a suitable place to collect data. ● Import a data set. ● Use a computer to view data in different ways. ● Propose a question that can be answered using logged data. ● Plan how to collect data using a data logger. ● Interpret data that has been collected using a data logger. ● Draw conclusions from the data that I have collected.
<p>Programming – Events and Actions</p>	<p>Programming – Repetition in Games</p>
<ul style="list-style-type: none"> ● Explain the relationship between an event and an action ● Choose which keys to use for actions and explain my choices. ● Identify a way to improve a program. ● Program movement. ● Use a programming extension. ● Identify additional features (from a given set of blocks). ● Choose suitable keys to turn on additional features. 	<ul style="list-style-type: none"> ● Predict the outcome of a snippet of code. ● Choose when to use a count-controlled and an infinite loop. ● Choose which action will be repeated for each object. ● Evaluate the effectiveness of the repeated sequences used in my program. ● Identify which parts of a loop can be changed. ● Re-use existing code snippets on new sprites. ● Evaluate the use of repetition in a project.



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<ul style="list-style-type: none"> • Build more sequences of commands to make my design work. • Test a program against a given design. • Match a piece of code to an outcome. • Modify a program using a design. • Make design choices and justify them. • Implement my design. 	<ul style="list-style-type: none"> • Select key parts of a given project to use in my own design. • Refine the algorithm in my design. • Build a program that follows my design.
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Year 5	Year 6
Computer Systems and Networks – Systems & Searching	Creating Media – Web Page Creation
<ul style="list-style-type: none"> • Complete a web search to find specific information. • Refine my search. • Explain that search results are ordered. • Suggest some of the criteria that a search engine checks to decide on the order of results. • Describe some of the ways that search results can be influenced. • Explain how search engines make money. • Explain the different ways in which people communicate. • Choose methods of communication to suit particular purposes. • Compare different methods of communicating on the internet. • Decide when i should and should not share. • Explain that communication on the internet may not be private. 	<ul style="list-style-type: none"> • Discuss the different types of media used on websites. • Know that websites are written in html. • Recognise the common features of a web page. • Draw a web page layout that suits my purpose. • Say why i should use copyright-free images. • Describe what is meant by the term 'fair use'. • Add content to my own web page. • Evaluate what my web page looks like on different devices and suggest/make edits. • Explain what a navigation path is. • Make multiple web pages and link them using hyperlinks. • Explain the implication of linking to content owned by others. • Evaluate the user experience of a website.
Creating Media – Video Editing	Data and information – Spreadsheets
<ul style="list-style-type: none"> • Explain that a video can include both visual and audio media. • Plan a video project using a storyboard. • Choose the most suitable digital device for recording my project. • Demonstrate suitable methods of using a digital device to capture my video. • Record a video that demonstrates some of the features of an effective video. • Explain why lighting and angle are important in creating an effective video. 	<ul style="list-style-type: none"> • Explain the relevance of data headings. • Answer questions from an existing data set. • Explain what an item of data is. • Build a data set in a spreadsheet application. • Construct a formula in a spreadsheet. • Recognise that data can be calculated using different operations. • Create a formula which includes a range of cells. • Apply a formula to multiple cells by duplicating it. • Use a spreadsheet to answer questions. • Produce a graph.



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<ul style="list-style-type: none"> ● Store, retrieve, and export my recording to a computer. ● Explain how to improve a video by reshooting and editing. ● Make edits to my video and improve the final outcome. 	<ul style="list-style-type: none"> ● Use a graph to show the answer to questions.
Programming – Selection in Quizzes	Programming – Sensing
<ul style="list-style-type: none"> ● Recall how conditions are used in selection. ● Identify conditions in a program. ● Use selection in an infinite loop to check a condition. ● Identify the condition and outcomes in an if..then... else statement. ● Explain that program flow can branch according to a condition. ● Design the flow of a program which contains if... then... else... ● Identify the outcome of user input in an algorithm. ● Identify what setup code my project needs. 	<ul style="list-style-type: none"> ● Apply my knowledge of programming to a new environment. ● Test my program on an emulator. ● Transfer my program to a controllable device. ● Use a variable in an if... then... else... statement to select the flow of a program. ● Use a condition to change a variable. ● Experiment with different physical inputs. ● Explain the importance of the order of conditions in else if statements. ● Use an operand (e.g. <=>) in an if... then... statement. ● Modify a program to achieve a different outcome. ● Design the program flow for my project. ● Test my program against my design. ● Use a range of approaches to find and fix bugs.