











Skills Progression



	 Preschool	 EYFS	 Year 1	 Year 2	 Year 3	 Year 4	 Year 5	 Year 6
Computing Systems & Networks	<p>Show an interest in technological toys</p> <p>Identify a tablet device</p>	<p>Use a swipe motion to control a tablet</p> <p>Tap a tablet to open an application</p> <p>Use the home button to return to the home screen on a tablet</p> <p>Begin to recognise EYFS core app icons</p>	<p>Identify technology around us</p> <p>Identify a computer and its main parts</p> <p>Use a mouse in different ways (Click & Drag, open programs, make pictures)</p> <p>Use a keyboard to type on a computer</p> <p>Use the keyboard to edit text</p> <p>Create rules for using technology responsibly</p>	<p>Recognise the uses and features of information technology</p> <p>Identify the uses of information technology in the school</p> <p>Identify information technology beyond school</p> <p>Explain how information technology helps us</p> <p>Explain how to use information technology safely</p> <p>Recognise that choices are made when using information technology</p>	<p>Explain how digital devices function</p> <p>Identify input and output devices</p> <p>Recognise how digital devices can change the way that we work</p> <p>Explain how a computer network can be used to share information</p> <p>Explore how digital devices can be connected</p> <p>Recognise the physical components of a network</p>	<p>Describe how networks physically connect to other networks</p> <p>Recognise how networked devices make up the internet</p> <p>Outline how websites can be shared via the World Wide Web</p> <p>Describe how content can be added and accessed on the World Wide Web</p> <p>Recognise how the content of the WWW is created by people</p> <p>Evaluate the consequences of unreliable content</p>	<p>Explain that computers can be connected together to form systems</p> <p>Recognise the role of computer systems in our lives</p> <p>Identify how to use a search engine</p> <p>Describe how search engines select results</p> <p>Explain how search results are ranked</p> <p>Recognise why the order of results is important, and to whom</p>	<p>Explain the importance of internet addresses</p> <p>Recognise how data is transferred across the internet</p> <p>Explain how sharing information online can help people to work together</p> <p>Evaluate different ways of working together online</p> <p>Recognise how we communicate using technology</p> <p>Evaluate different methods of online communication</p>
Creating Media: Text & Images	<p>Mark-make on a digital device</p>	<p>Draw a picture using an app on a tablet device</p>	<p>Describe what different freehand tools do</p>	<p>Use a digital device to take a photograph</p>	<p>Recognise how text and images convey information</p>	<p>Explain that the composition of digital images can be changed</p>	<p>Identify that drawing tools can be used to</p>	<p>Review an existing website and consider its structure</p>

	<p>Understand that a tablet device can be used to take a photograph</p>	<p>Take a photograph using the camera function on a tablet device</p> <p>Access the camera roll on a tablet device</p>	<p>Use the shape tool and the line tools</p> <p>Make careful choices when painting a digital picture (e.g. shapes/colours)</p> <p>Explain why I chose the tools I used</p> <p>Use a computer on my own to paint a picture</p> <p>Compare painting a picture on a computer and on paper</p> <p>Use a computer to write</p> <p>Add and remove text on a computer</p> <p>Identify that the look of text can be changed on a computer</p> <p>Make careful choices when changing text</p> <p>Explain why I used the tools that I chose</p> <p>Compare typing on a computer to writing on paper</p>	<p>Make choices when taking a photograph</p> <p>Describe what makes a good photograph</p> <p>Decide how photographs can be improved</p> <p>Use tools to change an image</p> <p>Recognise that photos can be changed</p>	<p>Recognise that text and layout can be edited</p> <p>Choose appropriate page settings</p> <p>Add content to a desktop publishing publication</p> <p>Consider how different layouts can suit different purposes</p> <p>Consider the benefits of desktop publishing</p>	<p>Explain that colours can be changed in digital images</p> <p>Explain how cloning can be used in photo editing</p> <p>Explain that images can be combined</p> <p>Combine images for a purpose</p> <p>Evaluate how changes can improve an image</p>	<p>produce different outcomes</p> <p>Create a vector drawing by combining shapes</p> <p>Use tools to achieve a desired effect</p> <p>Recognise that vector drawings consist of layers</p> <p>Group objects to make them easier to work with</p> <p>Apply learning about vector drawings</p>	<p>Plan the features of a web page</p> <p>Consider the ownership and use of images (copyright)</p> <p>Recognise the need to preview pages</p> <p>Outline the need for a navigation path</p> <p>Recognise the implications of linking to content owned by other people</p> <p>Recognise that you can work in three dimensions on a computer</p> <p>Identify that digital 3D objects can be modified</p> <p>Recognise that objects can be combined in a 3D model</p> <p>Create a 3D model for a given purpose</p> <p>Plan my own 3D model</p> <p>Create my own digital 3D model</p>
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**Creating
Media:
Sound &
Motion**

Understand that a tablet device can be used to record video and sound

Record sound on a tablet device

Record a video on a tablet device

Access the camera roll to view a video on a tablet device

Say how music can make us feel

Identify that there are patterns in music

Experiment with sound using a computer

Use a computer to create a musical pattern

Create music for a purpose

Review and refine our computer work

Explain that animation is a sequence of drawings or photographs

Relate animated movement with a sequence of images

Plan an animation

Identify the need to work consistently and carefully

Review and improve an animation

Evaluate the impact of adding other media to an animation

Identify that sound can be recorded

Explain that audio recordings can be edited

Recognise the different parts of creating a podcast project

Apply audio editing skills independently

Combine audio to enhance a podcast project

Evaluate the effective use of audio

Explain what makes a video effective

Use a digital device to record video

Capture video using a range of techniques

Create a storyboard

Identify that video can be improved through reshooting and editing

Consider the impact of the choices made when making and sharing a video

Data & Information

Count objects to 5

Group objects by colour or shape

Count objects to 10

Group objects by differing properties (e.g. colour, size, weight, capacity)

Label objects

Identify that objects can be counted

Describe objects in different ways

Count objects with the same properties

Compare groups of objects
Answer questions about groups of objects

Recognise that we can count and compare objects using tally charts

Recognise that objects can be represented as pictures

Create a pictogram

Select objects by attribute and make comparisons

Recognise that people can be described by attributes

Explain that we can present information using a computer

Create questions with yes/no answers

Identify the attributes needed to collect data about an object

Create a branching database

Explain why it is helpful for a database to be well structured

Plan the structure of a branching database

Independently create an identification tool

Explain that data gathered over time can be used to answer questions

Use a digital device to collect data automatically

Explain that a data logger collects 'data points' from sensors over time

Recognise how a computer can help us analyse data

Identify the data needed to answer questions

Use data from sensors to answer questions

Use a form to record information

Compare paper and computer-based databases

Outline how you can answer questions by grouping and then sorting data

Explain that tools can be used to select specific data

Explain that computer programs can be used to compare data visually

Use a real-world database to answer questions

Create a data set in a spreadsheet

Build a data set in a spreadsheet

Explain that formulas can be used to produce calculated data

Apply formulas to data

Create a spreadsheet to plan an event

Choose suitable ways to present data

<p style="text-align: center;">Programming A</p>	<p>Use a control pad to move an object forwards and backwards (e.g. remote control car)</p>	<p>Use single step commands to move a bee-bot forwards, backwards, right and left</p>	<p>Explain what a given command will do</p> <p>Act out a given command</p> <p>Combine 'forwards' and 'backwards' commands to make a sequence</p> <p>Combine four direction commands to make sequences</p> <p>Plan a simple program</p> <p>Find more than one solution to a problem when planning routes</p>	<p>Describe a series of instructions as a sequence</p> <p>Explain what happens when we change the order of instructions</p> <p>Use logical reasoning to predict the outcome of a program</p> <p>Explain that programming projects can have code and artwork</p> <p>Design an algorithm</p> <p>Create and debug a program that I have written</p>	<p>Explore a new programming environment</p> <p>Identify that commands have an outcome</p> <p>Explain that a program has a start</p> <p>Recognise that a sequence of commands can have an order</p> <p>Change the appearance of a project</p> <p>Create a project from a task description</p>	<p>Identify that accuracy in programming is important</p> <p>Create a program in a text-based language</p> <p>Explain what 'repeat' means</p> <p>Modify a count-controlled loop to produce a given outcome</p> <p>Decompose a task into small steps</p> <p>Create a program that uses count-controlled loops to produce a given outcome</p>	<p>Define a 'variable' as something that is changeable</p> <p>Explain why a variable is used in a program</p> <p>Choose how to improve a game by using variables</p> <p>Design a project that builds on a given example</p> <p>Use a design to create a project</p> <p>Evaluate a project</p>	
<p style="text-align: center;">Programming B</p>	<p>Use single step commands to move a bee-bot forwards and backwards</p>	<p>Use two-step commands to move an object forwards and left or right, then backwards and left or right</p>	<p>Choose a command for a given purpose</p> <p>Show that a series of commands</p>	<p>Explain that a sequence of commands has a start</p> <p>Explain that a sequence of</p>	<p>Explain how a sprite moves in an existing project</p> <p>Create a program to move</p>	<p>Develop the use of count-controlled loops in a different programming environment</p>	<p>Explain how selection is used in computer programs</p> <p>Relate that a conditional</p>	<p>Create a program to run on a controllable device</p> <p>Explain that selection can</p>

			<p>can be joined together</p> <p>Identify the effect of changing a value</p> <p>Explain that each sprite has its own instructions</p> <p>Design the parts of a project</p> <p>Use my algorithm to create a program</p>	<p>commands has an outcome</p> <p>Create a program using a given design</p> <p>Change a given design</p> <p>Create a program using my own design</p> <p>Decide how my project can be improved</p>	<p>a sprite in four directions</p> <p>Adapt a program to a new context</p> <p>Develop a program by adding features</p> <p>Identify and fix bugs in a program</p> <p>Design and create a maze-based challenge</p>	<p>Explain that in programming there are infinite loops and count-controlled loops</p> <p>Develop a design that includes two or more loops which run at the same time</p> <p>Modify an infinite loop in a given program</p> <p>Design a project that includes repetition</p> <p>Create a project that includes repetition</p>	<p>statement connects a condition to an outcome</p> <p>Explain how selection directs the flow of a program</p> <p>Design a program that uses selection</p> <p>Create a program that uses selection</p> <p>Evaluate a program that uses selection</p>	<p>control the flow of a program</p> <p>Update a variable with a user input</p> <p>Use a conditional statement to compare a variable to a value</p> <p>Design a project that uses inputs and outputs on a controllable device</p> <p>Develop a program to use inputs and outputs on a controllable device</p>
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