



Computing progression grid KS1

	Substantive Knowledge	Disciplinary Knowledge
Year 1		
Technology Around us	<p>To explain that technology is something that can help us.</p> <p>To identify examples of technology</p> <p>To explain how examples of technology help us.</p> <p>To recognise that a computer is an example of technology.</p> <p>To recognise that choices are made when using technology.</p> <p>To explain why rules are needed when using technology.</p>	<p>To choose a piece of technology to do a job.</p> <p>To recognise that some technology can be used in different ways.</p> <p>To identify the main parts of a computer</p> <p>To use a mouse in different ways</p> <p>To use a keyboard to type</p> <p>To use the keyboard to edit text.</p> <p>To show how to use technology safely</p>
Digital painting	<p>To explain what different freehand tools do</p> <p>To recognise computers can be used to create art.</p> <p>To recognise a tool can be adjusted to suit my need.</p> <p>To consider impact of choices made</p> <p>To decide when it's appropriate to use each tool.</p> <p>To compare painting using a computer with painting using brushes</p>	<p>To create a picture using freehand tools</p> <p>To use shape and line tools when precision is needed.</p> <p>To use a range of paint colours</p> <p>To use the fill tool to colour an enclosed area.</p> <p>To use the undo button to correct a mistake.</p> <p>To combine a range of tools to create a piece of artwork.</p>
Programming A	<p>To recall words that can be enacted.</p> <p>To explain what a given command does</p>	<p>To enact a given word</p>

	<p>To match a command to an outcome</p> <p>To understand that a program is a set of commands that a computer can run.</p> <p>To recall that a series of instructions can be issued before they are enacted.</p>	<p>To predict the outcome of a command on a device</p> <p>To list which commands can be used on a given device.</p> <p>To run a command on a floor robot</p> <p>To choose a command for a given purpose</p> <p>To choose a series of words that can be enacted as a program.</p> <p>To choose a series of commands that can be run as a program.</p> <p>To build a sequence of commands in steps</p> <p>To combine commands in a program</p> <p>To run a program on a device</p>
Grouping Data	<p>To identify that objects can be counted.</p> <p>To recognise that information can be presented.</p> <p>To recognise that information can be presented in different ways</p>	<p>To identify some attributes of an object</p> <p>To collect simple data</p> <p>To show that collected data can be counted.</p> <p>To describe the properties of an object</p> <p>To choose an attribute to group objects by</p> <p>To group objects to answer questions.</p> <p>To explain that objects can be grouped by similarities (attribute)</p>
Digital Writing	<p>To recognise that a keyboard is used to enter text into a computer.</p> <p>To recognise that the Shift key changes the output of a key.</p> <p>To recognise that text can be changed.</p> <p>To recognise that text can be edited.</p> <p>To recognise that the appearance of text can be changed.</p> <p>To consider the impact of choices made</p>	<p>To use letter, number, and Space keys to enter text into a computer.</p> <p>To use punctuation and special characters</p> <p>To select text</p> <p>To change the appearance of text on a computer</p> <p>To choose options to achieve a desired effect.</p> <p>To position the text cursor in a chosen location</p> <p>To use the Backspace key to remove text.</p> <p>To use Undo</p>

<p>Programming B</p>	<p>To enact a given word To recall words that can be enacted. To predict the outcome of a command on a device To list that commands can be used on a given device. To explain what a given command does To match a command to an outcome To recognise how to run a command (press a button) To choose a command for a given purpose To understand that a program is a set of commands a computer can run. To recall that a series of instructions can be issued before they are enacted. To build a sequence of commands in steps To combine commands in a program</p>	<p>To choose a series of words that can be enacted as a program. To choose a series of commands that can be run as a program. To run a program on a device</p>
<p>Year 2</p>		
<p>Information technology Around Us</p>	<p>To recognise different types of computers used in school To identify that a computer is a part of information technology To recognise the features of information technology To talk about uses of information technology To say how rules for using information technology can help us To explain how information technology benefits us.</p>	<p>To describe some uses of computers To identify information technology in school To identify information technology beyond school To show how to use information technology safely</p>

	To recognise that choices are made when using information technology	
Digital Photography	<p>To recognise that some digital devices can capture images using a camera</p> <p>To talk about how to take a photograph</p> <p>To recognise that photographs can be saved and viewed later</p> <p>To make choices when composing my photograph</p> <p>To recognise features of 'good' photographs</p> <p>To identify how a photograph could be improved</p> <p>To explain the effect of light on a photograph</p> <p>To recognise that photographs can be change after they have been taken</p> <p>To recognise that some images are not accurate</p>	<p>To capture a digital image</p> <p>To take photographs in both landscape and portrait format</p> <p>To view photographs on a digital device</p> <p>To decide which photographs to keep</p> <p>To hold the camera still to take a clear photograph</p> <p>To use zoom to change the composition of a photograph</p> <p>To consider lighting before taking a photograph</p> <p>To improve a photograph by retaking it</p> <p>To use filters to edit the appearance of a photograph</p>
Programming A	<p>To describe that a series of instructions is a sequence</p> <p>To explain what happens when we change the order of instructions</p> <p>To recall that a series of instructions can be issued before they are enacted</p> <p>To recognise that you can predict the outcome of a program</p>	<p>To choose a series of words that can be enacted as a sequence</p> <p>To choose a series of instructions that can be run as a program</p> <p>To create a program</p> <p>To trace a sequence to make a prediction</p> <p>To run a program on a device</p> <p>To debug a program that I have written</p>
Making music	<p>To identify that computers can be used to play sounds of different instruments</p> <p>To identify that the same pattern can be represented in different ways</p>	<p>To experiment with musical patterns on a computer</p> <p>To experiment with different sounds on a computer</p>

	<p>To compare playing music on instruments with making music on a computer</p>	<p>To use a computer to create a musical pattern To use a computer to compose a rhythm and a melody on a given theme To use a computer to play the same music in different ways (e.g. tempo) To evaluate a musical composition created on a computer To improve a musical composition created on a computer</p>
<p>Programming quizzes</p>	<p>To describe a series of instructions as a 'sequence' To recall that a series of instructions can be issued before they are enacted To use logical reasoning to predict the outcome of a program</p>	<p>To choose a series of words that can be enacted as a sequence To explain what happens when we change the order of instructions To choose a series of commands that can be run as a program To trace a sequence to make a prediction To test a prediction by running the sequence To run a program on a device</p>

National Curriculum Coverage – Years 1 and 2	1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Information technology around us	2.2 Digital photography	2.3 Robot algorithms	2.4 Pictograms	2.5 Digital music	2.6 Programming quizzes
Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions			✓			✓			✓			✓
Create and debug simple programs			✓			✓			✓			✓
Use logical reasoning to predict the behaviour of simple programs			✓			✓			✓			✓
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content	✓	✓		✓	✓		✓	✓		✓	✓	✓
Recognise common uses of information technology beyond school	✓		✓				✓	✓				
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	✓			✓	✓		✓	✓	✓	✓		

