

Computing Skills, Knowledge and Vocabulary Progression



Year 2

Autumn 1

Vocabulary

2:1 Coding

(5 Weeks)

Action
Algorithm
Bug
Character
Code block
Code Design
Command
Debug/Debugging
Design Mode
Input
Object
Properties
Repeat
Scale
Timer
When clicked
When Key

Knowledge

2:1 Coding

(5 Weeks)

To understand what an algorithm is --- Children can explain that an algorithm is a set of instructions.
Children can explain that for the computer to make something happen, it needs to follow clear instructions.
To understand how use the Repeat command.
To understand how to use the Timer command.
Children know that the Turtle and Character objects have different properties and move in different ways. They can begin to make choices about which object type to use.
Children are beginning to understand that the Repeat and Timer commands both make objects repeat actions but function differently and the type of object can affect which is the best command to use.

	<p>To know what debugging means -- Children can explain what debug (debugging) means.</p> <p>To understand the need to test and debug a program repeatedly.</p> <p>Children have a clear idea of how to use a design document to start debugging a program.</p> <p>Children can explain why it is important to save their work after each functioning iteration of the program they are making.</p> <p>To predict what the objects will do in other programs, based on their knowledge of what the object is capable of.</p> <p>Children can predict what the objects in classmates' programs will do, based on my knowledge of the objects' limitations, e.g. a turtle can only move in specific ways.</p> <p>Children can explain how they know that certain objects can only move in certain ways</p>
<p><u>Skills</u></p> <p>2:1 Coding</p> <p>(5 Weeks)</p>	<p>To create a computer program using simple algorithms.</p> <p>Children can describe the algorithms they've created.</p> <p>To use the button object.</p> <p>Children can include a button in their programs.</p> <p>To debug simple programs.</p> <p>Children can create a computer program using different objects.</p> <p>To use all the coding knowledge, they have learned throughout their programming lessons to create a more complex program that tells a story.</p> <p>Children can plan and use algorithms in programs successfully to achieve a result.</p> <p>Children can code a program using a variety of objects, actions, events and outputs successfully.</p>
<p><u>Vocabulary</u></p> <p>2:2 Online Safety</p> <p>(3 Weeks)</p>	<p>Search</p> <p>Displayboard</p> <p>Internet</p> <p>Sharing</p> <p>Email</p> <p>Attachment</p> <p>Digital Footprint</p>
<p><u>Knowledge</u></p> <p>2:2 Online Safety</p> <p>(3 Weeks)</p>	<p>To know how to refine searches using the Search tool.</p> <p>To know how to share work electronically using the display boards.</p> <p>To have some knowledge and understanding about sharing more globally on the Internet.</p> <p>Children understand that the teacher approves work before it is displayed.</p> <p>Children are beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet.</p> <p>To understand how we talk to others when they aren't there in front of us.</p> <p>Children understand how 2Repond can teach about how to use email.</p> <p>Children can open and send an email to a 2Respond character.</p> <p>To understand that information put online leaves a digital footprint or trail.</p>

	<p>To understand the steps that can be taken to keep personal data and hardware secure.</p> <p>Children can explain what a digital footprint is.</p> <p>Children can give examples of things that they wouldn't want to be in their digital footprint.</p>
<p>Skills</p> <p>2:2 Online Safety</p> <p>(3Weeks)</p>	<p>To use digital technology to share work on Purple Mash to communicate and connect with others locally.</p> <p>Children can use the search facility to refine searches on Purple Mash by year group and subject.</p> <p>Children can share the work they have created to a display board.</p> <p>To open and send simple online communications in the form of email.</p> <p>Children have discussed their own experiences and understanding of what email is used for.</p> <p>Children have discussed what makes us feel happy and what makes us feel sad?</p> <p>To begin to think critically about the information they leave online.</p>
	<p>Autumn 2</p>
<p>Vocabulary</p> <p>2:3 Spreadsheets</p> <p>(4 Weeks)</p>	<p>Spreadsheet</p> <p>Backspace key</p> <p>Copy and Paste</p> <p>Columns</p> <p>Cells</p> <p>Count Tool</p> <p>Delete key</p> <p>Equals tool</p> <p>Image Toolbox</p> <p>Lock tool</p> <p>Move cell tool</p> <p>Rows</p> <p>Speak Tool</p>
<p>Knowledge</p> <p>2:3 Spreadsheet</p> <p>(4Weeks)</p>	<p>Children can explain what rows and columns are in a spreadsheet.</p> <p>Children know how to add images from the image toolbox and allocate them a value.</p> <p>Children know how to add the count tool to count items.</p> <p>Children know they can use a spreadsheet to solve a mathematical puzzle.</p> <p>Children know how to create a table of data on a spreadsheet.</p> <p>Children know how to use the data to create a block graph manually.</p>

<p><u>Skills</u></p> <p>2:3 Spreadsheet (4 Weeks)</p>	<p>Children can open, save and edit a spreadsheet. Children can use copying a pasting to help make spreadsheets. Children can use tools in a spreadsheet to automatically total rows and columns. Children can use a spreadsheet to solve a mathematical puzzle. Children can use images in a spreadsheet. Children can work out how much they need to pay using coins by using a spreadsheet to help calculate.</p>
<p>Spring 1</p>	
<p><u>Vocabulary</u></p> <p>2:4 Questioning (5 weeks)</p>	<p>Pictogram Question Data Collate Binary Tree Avatar Database</p>
<p><u>Knowledge</u></p> <p>2:4 Questioning (5 Weeks)</p>	<p>Children understand that the information on pictograms cannot be used to answer more complicated questions. Children understand what is meant by a binary tree. To know how to construct a binary tree to separate different items. Children understand that questions are limited to 'yes' and 'no' in a binary tree. Children understand that the user cannot use 2Question to find out answers to more complicated questions. Children understand what is meant by a database.</p>
<p><u>Skills</u></p> <p>2:4 Questioning (5 weeks)</p>	<p>To use YES or No questions to separate information. Use 2Question (a binary tree) to answer questions. Children can match the 2Simple Avatar pictures to names using a binary tree. To use a database to answer more complex search questions. To use the search tool to find information.</p>
<p>Spring 2</p>	
<p><u>Vocabulary</u></p> <p>2:5 Effective Searching</p>	<p>Internet Search Search Engine</p>

(3 weeks)	
<u>Knowledge</u> 2:5 Effective Searching (3 weeks)	To understand the terminology associated with searching. Children know the basic parts of a web search engine search page. Children can "read" a web search results page. Children can search for answers to a quiz on the internet.
<u>Skills</u> 2:5 Effective Searching (3 weeks)	Children can recall the meaning of key internet terms. Children can complete a quiz about the Internet To create a leaflet to help someone search for information on the Internet.
	<h2>Summer 1</h2>
<u>Vocabulary</u> 2:6 Creating Pictures (5 weeks)	Impressionism Palette Pointillism Share Surrealism Somet
<u>Knowledge</u> 2:6 Creating Pictures (5 weeks)	To be aware of the impressionist style of art (Monet, Degas, Renoir). I can explain what is meant by impressionist art. I can explain what pointillism is. To be exposed to the work of Piet Mondrian and have the knowledge to recreate it using the Lines template. I can describe the main features of Piet Mondrian's work I can describe the main features of art that uses repeating patterns.

	<p>I know how to use 2Paint a Picture to create my own art by repeating patterns in a variety of ways.</p> <p>I know how to combine more than one effect in 2Paint a Picture to enhance my patterns.</p> <p>I can describe surrealist art.</p>
<p><u>Skills</u></p> <p>2:6 Creating Pictures (5 weeks)</p>	<p>I can use 2Paint a Picture to create my own art based upon this style.</p> <p>To recreate pointillist art and look at the work of pointillist artists such as Seurat.</p> <p>I can use the eCollage function in 2Paint a Picture to create my own surrealist art using drawing and clipart.</p>
	<p>Summer 2</p>
<p><u>Vocabulary</u></p> <p>2:7 Making Music (3 weeks)</p>	<p>Bpm</p> <p>Composition</p> <p>Digitally</p> <p>Instrument</p> <p>Music</p> <p>Sound Effects (Sfx)</p> <p>Soundtrack</p> <p>Tempo</p>
<p><u>Knowledge</u></p> <p>2:7 Making Music (3 weeks)</p>	<p>Children understand what 2Sequence is and how it works.</p> <p>Children know how to use the different sounds within 2Sequence to create a tune.</p> <p>Children have explored how to speed up and slow down tunes.</p> <p>Children understand what happens to the tune when sounds are moved.</p> <p>Children have considered how music can be used to express feelings.</p> <p>Children know how to create two tunes which depict two feelings</p> <p>Children know how to upload and use their own sound chosen from a bank of sounds.</p> <p>Children know how to create, uploaded and use their own recorded sound.</p>
<p><u>Skills</u></p>	<p>Children have added sounds to a tune they've already created to change it.</p> <p>Children can change the volume of the background sounds.</p> <p>Children have created their own tune using some of the chosen sounds.</p>

<p>2:7 Making Music (3 weeks)</p>	
<p><u>Vocabulary</u> 2:8 Presenting ideas (4 weeks)</p>	<p>Concept Map (Mind Map) Node Animated Quiz Non-Fiction Presentation Narrative Audience</p>
<p><u>Knowledge</u> 2:8 Presenting ideas (4 weeks)</p>	<p>To know that a story can be presented in different ways. Children know how to make a quiz about a story using 2Quiz. Children can talk about their work and make improvements to solutions based on feedback received. Children have added appropriate clipart. Children have added an appropriate photo. Children know that data can be structured in tables to make it useful. Children know how to collect, organise and present data and information in digital content. Children know how to create digital content to achieve a given goal by combining software packages.</p>
<p><u>Skills</u> 2:8 Presenting ideas (4 weeks)</p>	<p>Children have extracted information from a 2Connect file to make a publisher fact file on a nonfiction topic. Children can use a variety of software to manipulate and present digital content and information.</p>