

## Progression of skills – Computing

Skill	EYFS	Year 1	Year 2
<b>Computer Science</b>			
<b>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</b>	Children begin to use digital devices (Bee-Bot) to <u>talk about</u> and <u>observe</u> how the Bee-Bot moves. Children are able to control the Bee-Bot by giving it instructions on step at a time.	Children <u>understand</u> that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program.	Children can <u>explain</u> that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.
<b>Create and debug simple programs.</b>		Children <u>can work out what is wrong with a simple algorithm</u> when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can <u>write their own simple algorithm</u> , e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.	Children can <u>create a simple program</u> that achieves a specific purpose. They can also <u>identify and correct some errors</u> , e.g. <u>Debug Challenges: Chimp</u> . Children's program designs display a growing awareness of the need for logical, programmable steps.
<b>Use logical reasoning to predict the behaviour of simple programs</b>		When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, <u>interpret</u> where the turtle in 2Go challenges will end up at the end of the program.	Children can <u>identify</u> the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.
<b>Information Technology</b>			
<b>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</b>	Children are able to <u>use a mouse</u> with their finger on the correct buttons and move the cursor around the screen where they want it to go.	Children are able to <u>sort, collate, edit and store simple digital content</u> e.g. children can <u>name, save and retrieve</u> their work and follow simple instructions to access online resources, use Purple Mash 2Quiz	Children demonstrate an ability to <u>organise data</u> using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to <u>edit more</u>

	<p>Children are able to <u>turn the computers on and off</u> correctly.</p> <p>Children are able to <u>navigate 'Mini Mash'</u> on Purple Mash and complete the activities.</p>	<p>example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count</p>	<p><u>complex digital data</u> such as music compositions within 2Sequence. Children are <u>confident when creating, naming, saving and retrieving content</u>. Children use a range of media in their digital content including photos, text and sound.</p>
<b>Digital Literacy</b>			
<p><b>Recognise common uses of information technology beyond school.</b></p>	<p>Children can <u>talk about</u> what technology is used at home, outdoors and the world around them.</p>	<p>Children <u>understand what is meant by technology</u> and can <u>identify a variety of examples</u> both in and out of school. They can <u>make a distinction between objects that use modern technology and those that do not</u> e.g. a microwave vs. a chair.</p>	<p>Children can <u>effectively retrieve relevant, purposeful digital content using a search engine</u>. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children <u>make links between technology they see around them, coding and multimedia work</u> they do in school e.g. animations , interactive code and programs</p>
<p><b>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.</b></p>	<p>Children know that if something they don't like comes up on a screen that they should get an adult. Children are taught not to use their real name online.</p>	<p>Children <u>understand the importance of keeping information</u>, such as their usernames and passwords, <u>private</u> and actively demonstrate this in lessons. Children <u>take ownership of their work and save this in their own private space</u> such as their My Work folder on Purple Mash</p>	<p>Children <u>know the implications of inappropriate online searches</u>. Children begin to <u>understand how things are shared electronically</u> such as posting work to the Purple Mash display board. They <u>develop an understanding of using email safely</u> by using 2Respond activities on Purple Mash and know ways of reporting in appropriate behaviours and content to a trusted adult.</p>