

# KS1 Progression in Computing

## Iqra Primary School



CS	EYFS	Year 1	Year 2
Problem solving	<p><u>Understand what algorithms are.</u> Understand that goals can be achieved by following a sequence of steps.</p>	<p><u>Understand what algorithms are.</u> Understand algorithms as sequences of instructions in everyday contexts. Take real-world problems and then plan a sequence of steps to solve these. <i>The problems could be moving a Bee Bot from one point to another, or making some simple food items like a sandwich, smoothie or pizza.</i></p>	<p><u>Understand what algorithms are.</u> Understand algorithms as sequences of instructions or sets of rules in everyday contexts. Recognise that common sequences of instructions or sets of rules can be thought of as algorithms. <i>Examples could include recipes, but might also be procedures or rules in class, spelling rules, simple arithmetic operations or number patterns.</i></p>
		<p><u>Understand how algorithms are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</u> Program floor turtles using sequences of instructions to implement an algorithm. Create a Bee Bot (or similar) program using a number of steps in order before pressing the Go button.</p>	<p><u>Understand how algorithms are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</u> Program on screen using sequences of instructions to implement an algorithm. Create programs as sequences of instructions when programming on screen. <i>Their program could be written using simple programming apps (such as Blue Bot or Lightbot), ScratchJr or Scratch, perhaps using pre-prepared blocks and sprites in this case.</i></p>
Programming		<p><u>Create and debug simple programs.</u> Give a sequence of instructions to a floor turtle. Create a Bee Bot program using a sequence of instructions before running it using the Go button. The length of the child's programs might be expected to increase over the course of the year.</p>	<p><u>Create and debug simple programs.</u> The child can create a simple program on screen, correcting any errors. The child can create a simple program on screen (<i>e.g. using the Blue Bot app, ScratchJr or with prepared sprites and blocks in Scratch</i>) with a particular goal or purpose in mind (<i>e.g. drawing a shape or moving a sprite from one place to another</i>). Can debug any errors in their own code</p>
Logical thinking	<p><u>Use logical reasoning to predict the behaviour of simple programs.</u> Can make predictions about what a program will do</p>	<p><u>Use logical reasoning to predict the behaviour of simple programs.</u> Give explanations for what they think a program will do. Explain to the teacher, and to peers, what they think a program will do. <i>This could be a program they or their peers have written, or it could be a familiar piece of software (including computer games).</i> Use an audio recorder or video camera to capture their explanations.</p>	<p><u>Use logical reasoning to predict the behaviour of simple programs.</u> Give logical explanations for what they think a program will do. Give logical explanations of what a program will do under given circumstances, including some attempt at explaining why it does what it does. <i>The program could be one they themselves have written or it could be a computer game or a familiar piece of software. The child could use an audio recorder or a video camera to record their explanations.</i></p>

Using ICT beyond school	<p><u>Recognise common uses of information technology beyond school.</u> Can name some uses of IT beyond school. <i>Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touchscreen devices</i></p>	<p><u>Recognise common uses of information technology beyond school.</u> Show an awareness of how IT is used for a range of purposes beyond school. Can mention some of the ways in which IT is used to communicate beyond school. <i>E.g. They might know that some people use social media such as Facebook, email, video calls or online greetings to say happy birthday to their friends.</i></p>	<p><u>Recognise common uses of information technology beyond school.</u> Show an awareness of how IT is used for a range of purposes beyond school. Can name a number of purposes for which IT is used beyond school. <i>They might know that adults can share work and discuss ideas in online communities; that photos can be taken, edited and shared easily using digital technology; that the web is made up of information shared by people and organisations; that people use email for a range of purposes and in a variety of contexts; that scientists use computers when collecting and analysing data.</i></p>
Creating content	<p><u>Use technology purposefully to organise, store and retrieve digital content.</u> Can store content on digital devices <i>(voice recordings, photographs, paste from internet)</i></p>	<p><u>Use technology purposefully to organise, store and retrieve digital content.</u> Use digital technology to organise, store and retrieve content. Use a range of digital technologies to store, access and organise digital content. Use a laptop computer, tablet or smartphone to help organise and moving content between one document and another or by moving content within the file system or on a document. <i>Projects might include videoing one another cooking, developing an e-book or an audio book, creating a greetings card.</i></p>	<p><u>Use technology purposefully to organise, store and retrieve digital content.</u> Store, organise and retrieve content on digital devices for a given purpose. With a given purpose, the child can use a range of digital technologies to retrieve, organise and store digital content. <i>Technologies will typically include laptop computers, tablets and smartphones with access to the internet, but the child might also be expected to use digital cameras, video cameras and audio recorders (or the equivalent apps on a tablet or smartphone). Projects might include digital photography, searching for images online and creating image-based presentation slides.</i></p>
	<p><u>Use technology purposefully to create and manipulate digital content.</u> Can create content on a digital device <i>(voice recordings, photographs)</i></p>	<p><u>Use technology purposefully to create and manipulate digital content.</u> Create and edit original content using digital technology. Create and edit their own original digital content using a range of technologies. <i>Content-creation technology might include laptop computers, tablets, smartphones, digital cameras, video cameras and audio recorders, although editing is likely to take place on laptops or tablets. Projects might include videoing one another cooking, developing an e-book or an audio book, creating a greetings card. Look for some indication of the child's creativity in this work as well as evidence that they have edited content.</i></p>	<p><u>Use technology purposefully to create and manipulate digital content.</u> Create and edit original content for a given purpose using digital technology and paying attention to the intended audience. Create and edit their own original digital content using a range of technologies. Content-creation technology might include laptop computers, tablets, smartphones with <b>network</b> connections, digital cameras, video cameras and audio recorders, although editing is likely to take place on laptops or tablets. <i>Projects might include digital photography, creating image-based presentation slides, composing an email and creating simple charts. Look for some indication of the child's creativity in this work and evidence that they have edited content. To be able to explain how they have taken into account the needs of their intended audience.</i></p>