

**KNOWLEDGE PROGRESSION IN COMPUTING AT THE FOUNDATION STAGE**

**EARLY LEARNING GOALS FOR UNDERSTANDING OF THE WORLD**

**TECHNOLOGY**

National Curriculum

- Children recognise that a range of technology is used in places such as homes and schools.
- Children understand how to use technology for particular purposes.

Early Years Foundation Stage

**Digital Citizenship**

- I can recognise some ways in which the internet can be used to communicate.
- I can identify rules that help keep us safe and healthy in and beyond the home when using technology

**Digital Literacy**

- I can name items we control in the everyday environment

**Computer Science**

- I know that an algorithm is a set of instruction that can solve a problem

**Information Technology**

- I can identify devices I could use to access information on the internet.
- I know that work I create belongs to me.
- I can name the parts of a computer and know what they are used for: Mouse, Monitor, Printer, Keyboard, DVD/CD Rom, USB

**KNOWLEDGE PROGRESSION IN COMPUTING AT KEY STAGE ONE**

National Curriculum	<ul style="list-style-type: none"> <li>• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>• create and debug simple programs</li> <li>• use logical reasoning to predict the behaviour of simple programs</li> <li>• use technology purposefully to create, organise, store, manipulate and retrieve digital content</li> <li>• recognise common uses of information technology beyond school</li> <li>• 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</li> </ul>
Year One	<p><b><u>Digital Citizenship</u></b></p> <ul style="list-style-type: none"> <li>• I can recognise that there may be people online who could make me feel sad, embarrassed or upset</li> <li>• I can recognise that information can stay online and could be copied</li> <li>• I can explain rules to keep us safe when we are using technology both in and beyond the home</li> </ul> <p><b><u>Digital Literacy</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Purple Mash to word process</li> <li>• I can tell you the main keys for typing e.g. shift, space bar, full stop</li> </ul> <p><b><u>Computer Science (Year 1 Focus Vocab - Algorithm)</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use BeeBots / BlueBots</li> <li>• I know how to use 2Go</li> <li>• I can tell you what an algorithm is</li> <li>• I know that a program is a precise set of instructions</li> </ul> <p><b><u>Information Technology</u></b></p> <ul style="list-style-type: none"> <li>• I can identify a browser</li> <li>• I can identify the icons for applications on the desktop</li> <li>• I know what a browser is and how to open one</li> <li>• I know to log on with my individual log in</li> <li>• I know how to shut the computer down</li> </ul>
Year Two	<b><u>Digital Citizenship</u></b>

- I know who to talk to if I think someone has made a mistake about putting something online
- I know how someone can/would get help about being bullied online or offline

#### **Digital Literacy**

- I know how to use Purple Mash to word process
- I know how to use Microsoft Word to word process
- I know how to save an image from the internet rather than using copy & paste
- I know which page orientation would best suit my work. e.g. portrait to landscape

#### **Computer Science (Year 2 Focus Vocab - Program)**

- I know how to use BeeBots / BlueBots
- I know how to use Scratch
- I can tell you what a program is
- I can tell you what an algorithm is
- I can tell you what an event is
- I know programs need an event to begin
- I know that computers need precise instructions

#### **Information Technology**

- I know that content on the internet may belong to other people
- I know there is a difference between physical, wireless and mobile networks
- I know the difference between shutting the computer down and logging out

**KNOWLEDGE PROGRESSION IN COMPUTING AT LOWER KEY STAGE TWO**

<p>National Curriculum</p>	<ul style="list-style-type: none"> <li>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> <li>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact</li> </ul>
<p>Year Three</p>	<p><b><u>Digital Citizenship</u></b></p> <ul style="list-style-type: none"> <li>• I know what is meant by 'identity'</li> <li>• I know how I can represent myself in different ways online</li> <li>• I know some technology specific forms of communication (e.g. emojis, acronyms)</li> </ul> <p><b><u>Digital Literacy</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Microsoft Word to word process</li> <li>• I know how to use Microsoft PowerPoint to word process</li> <li>• I know simple keyboard shortcuts e.g. Ctrl + V, X, C to re-order text</li> <li>• I know the difference between save and save as</li> </ul> <p><b><u>Computer Science (Year 3 Focus Vocab - Sequence)</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Scratch</li> <li>• I know how to use Logo</li> <li>• I can tell you what a sequence is</li> <li>• I know that a sequence is a list of instructions in a particular order</li> <li>• I know that if I change the sequence I may change the outcome of the program</li> </ul>

	<p><b><u>Information Technology</u></b></p> <ul style="list-style-type: none"> <li>• I know why copying someone else’s work from the internet without permission can cause problems</li> <li>• I understand file extensions and which ones attribute to different ICT products - .doc .xls .ppt .pub .pdf .mp3 .mp4</li> </ul>
<p>Year Four</p>	<p><b><u>Digital Citizenship</u></b></p> <ul style="list-style-type: none"> <li>• I know how my online identity can be different to the identity I present in ‘real life’.</li> <li>• I know some online technologies where bullying might take place</li> <li>• I know times or situations when I might need to limit the amount of time I use technology</li> </ul> <p><b><u>Digital Literacy</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Microsoft Word to word process</li> <li>• I know how to use Microsoft PowerPoint to word process</li> <li>• I know different ways I can present information using Microsoft Word and Microsoft PowerPoint</li> <li>• I am beginning to know how to adapt my work for an audience and purpose</li> </ul> <p><b><u>Computer Science (Year 4 Focus Vocab – Repeat / Loop)</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Scratch</li> <li>• I know how to use Logo</li> <li>• I know what a loop or repeat is</li> <li>• I know that a loop is used to repeat a set of instructions</li> </ul> <p><b><u>Information Technology</u></b></p> <ul style="list-style-type: none"> <li>• I know what criteria have to be met before something is a ‘fact’</li> <li>• I know how internet use can be monitored</li> <li>• I understand that there are multiple platforms and the differences between these e.g. Windows / Apple / Android</li> <li>• I explain file extensions and which ones attribute to different ICT products- .zip</li> <li>• I can describe what an ISP is</li> <li>• I can describe what a URL (web address) is</li> <li>• I can explain domain name types - .ac. uk .gov .sch</li> </ul>

**KNOWLEDGE PROGRESSION IN COMPUTING AT UPPER KEY STAGE TWO**

<p>National Curriculum</p>	<ul style="list-style-type: none"> <li>• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>• use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <li>• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> <li>• understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration</li> <li>• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> <li>• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> <li>• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>
<p>Year Five</p>	<p><b><u>Digital Citizenship</u></b></p> <ul style="list-style-type: none"> <li>• I know how identity online can be copied, modified or altered</li> <li>• I know how to block abusive users</li> <li>• I know how I would report online bullying on the apps and platforms that I use</li> <li>• I know the helpline services who can support me and what I would say and do if I needed their help (e.g. Childline / CEOP)</li> </ul> <p><b><u>Digital Literacy</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use advanced features of Microsoft Word to word process</li> <li>• I know how to use advanced features of Microsoft PowerPoint to word process</li> <li>• I know when to choose the features that I need for the task I am doing</li> <li>• I know different ways I can present information using Microsoft Word and Microsoft PowerPoint</li> <li>• I know how to adapt my work for an audience and purpose</li> </ul> <p><b><u>Computer Science (Year 5 Focus Vocab – Selection/Conditional)</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Scratch</li> <li>• I know how to use Logo</li> <li>• I can tell you what a conditional is</li> </ul>

	<p><b><u>Information Technology</u></b></p> <ul style="list-style-type: none"> <li>• I know the difference between online mis-information (inaccurate info. distributed by accident) and dis-information (inaccurate info. deliberately distributed &amp; intended to mislead)</li> <li>• I know why some information I find online may not be honest, accurate or legal</li> <li>• I know that intellectual property rights and copyright protection carry into the online world.</li> <li>• I know what an operating system is</li> <li>• I can identify the key internal parts of a computer</li> </ul>
<p>Year Six</p>	<p><b><u>Digital Citizenship</u></b></p> <ul style="list-style-type: none"> <li>• I know my responsibilities for the well-being of others in my online social group.</li> <li>• I know how I would support others (including those who are having difficulties) online.</li> <li>• I know ways of reporting problems online for both my friends and myself</li> <li>• I know how I am developing an online reputation, which will allow other people to form an opinion of me •</li> <li>I know a range of ways to report concerns in both school and at home about online bullying</li> </ul> <p><b><u>Digital Literacy</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use advanced features of Microsoft Word to word process</li> <li>• I know how to use advanced features of Microsoft PowerPoint to word process</li> <li>• I know when to choose the software that I think will be the best for the task I am doing</li> <li>• I know how to adapt my work for an audience and purpose</li> </ul> <p><b><u>Computer Science (Year 6 Focus Vocab – Variable)</u></b></p> <ul style="list-style-type: none"> <li>• I know how to use Scratch</li> <li>• I know how to use Logo</li> <li>• I can explain what a variable is</li> <li>• I know that there are many other programming languages</li> </ul> <p><b><u>Information Technology</u></b></p> <ul style="list-style-type: none"> <li>• I know how some online information can be opinion and can offer examples</li> <li>• I know how and why some people may present 'opinions' as 'facts'</li> <li>• I know what to do if my password is lost or stolen</li> <li>• I know what app permissions are and can give some examples from the technology or services I use</li> <li>• I know simple ways to increase privacy on apps and services that provide privacy settings</li> </ul>