

Progression of Computing Skills	
Class 1	
Reception (EYFS)	Year 1
<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Exploring the Digital World -</b></p> <ul style="list-style-type: none"> <li>• With help search for and choose images from the internet</li> <li>• With support enter text into a search engine to find specific given web sites</li> <li>• Contribute to whole class creation of pictograms</li> <li>• Begin to develop simple classification skills by carrying out simple sorting activities</li> <li>• Start to recognise simple technologies in the world around them</li> </ul> <p><b>Communicating in the Digital World -</b></p> <ul style="list-style-type: none"> <li>• Begin to understand that technology can be used to communicate ideas in different ways</li> <li>• Begin to use a keyboard (with support) and notice the effect on screen</li> <li>• Understand there are a variety of tools in an art package</li> <li>• Understand that cameras can take still and moving image (video)</li> <li>• Understand that technological devices can be used to record and play back sounds</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Shaping the Digital World –</b></p> <ul style="list-style-type: none"> <li>• Play with equipment that simulates control devices (push button toys)</li> <li>• Play with simple adventure programme or simulation</li> <li>• Explore outcomes when individual buttons are pressed on a robot</li> </ul> <p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>Online Safety -</b></p> <ul style="list-style-type: none"> <li>• With help save their own content in their own electronic folder</li> <li>• Understand their logon to a site is personal to them</li> <li>• Know some personal information (name, address, age)</li> <li>• Know to tell a trusted adult if anyone asks them to do something that makes them feel sad, embarrassed or upset</li> <li>• Know to tell someone if they view content they think is inappropriate or upsetting</li> </ul>	<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>• The child can use digital technology to store and retrieve content</li> <li>• The child can create original content using digital technology</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>• The child can understand <b>algorithms</b> as <b>sequences</b> of instructions in everyday contexts</li> <li>• The child can program toys using <b>sequences</b> of instructions to implement an <b>algorithm</b></li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>• The child can give a <b>sequence</b> of instructions to a toy</li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>• The child can give explanations for what they think a <b>program</b> will do</li> </ul> <p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>• The child can keep themselves safe while using digital technology</li> <li>• The child can understand that information on the internet can be seen by others</li> <li>• The child can understand what to do if they see disturbing content online at home or at school</li> </ul> <p><b>Using ICT Beyond School -</b></p> <ul style="list-style-type: none"> <li>• The child can show an awareness of how IT is used for communication beyond school</li> </ul>

Progression of Computing Skills	
Class 2	
Year 2	Year 3
<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>The child can store, organise and retrieve content on <b>digital devices</b> for a given purpose</li> <li>The child can create and edit original content for a given purpose using digital technology</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>The child can understand <b>algorithms</b> as <b>sequences</b> of instructions of sets of rules in everyday contexts</li> <li>The child can program on screen using <b>sequences</b> of instructions to implement an <b>algorithm</b></li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>The child can give a simple <b>program</b> on screen, correcting any errors</li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>The child can give logical explanations for what they think a <b>program</b> will do</li> </ul> <p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>The child can keep safe and show respect to others while using digital technology</li> <li>The child can understand that they should not share personal information online</li> <li>The child can understand what to do if they have concerns about content or being contacted online</li> </ul> <p><b>Using ICT Beyond School -</b></p> <ul style="list-style-type: none"> <li>The child can show an awareness of how IT is used for a range of purposes beyond school</li> </ul>	<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>The child can use a range of <b>programs</b> on a computer</li> <li>The child can design and create content on a computer</li> <li>The child can collect and present information</li> </ul> <p><b>Searching -</b></p> <ul style="list-style-type: none"> <li>The child can search for information within a single site</li> <li>The child can understand that search engines select pages according to keywords found in the content</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>The child can design and write a <b>program</b> using a <b>block language</b>, without user interaction</li> <li>The child can explore <b>simulations</b> of physical systems on screen</li> <li>The child can plan a project</li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>The child can use <b>sequence</b> in <b>programs</b></li> <li>The child can write a <b>program</b> to produce <b>output</b> on screen</li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>The child can explain a simple, sequence-based <b>algorithm</b> in their own words</li> <li>The child can use logical reasoning to detect errors in programs</li> <li>The child can understand that computer <b>networks</b> transmit information in a digital (binary) format</li> <li>The child can understand that email and videoconferencing are made possible through the internet</li> </ul> <p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>The child can use digital technology safely and show respect for others when working online</li> <li>The child can recognise unacceptable behaviour when using digital technology</li> <li>The child can know who to talk to about concerns and inappropriate behaviour at school</li> <li>The child can decide whether a web page is relevant for a given purpose or question</li> <li>The child can use email and videoconferencing in class</li> </ul>

Progression of Computing Skills		
Class 3		
Year 4	Year 5	Year 6
<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>The child can use and combine a range of <b>programs</b> on a computer</li> <li>The child can design and create content on a computer in response to a given goal</li> <li>The child can collect and present <b>data</b></li> </ul> <p><b>Searching -</b></p> <ul style="list-style-type: none"> <li>The child can use a standard search engine to find information</li> <li>The child can understand that search engines rank pages according to relevance</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>The child can design and write a <b>program</b> using a <b>block language</b> to a given brief, including simple interaction</li> <li>The child can develop their own <b>simulation</b> of a simple physical system on screen</li> <li>The child can work with others to plan a project</li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>The child can use <b>sequence</b> and <b>repetition</b> in <b>programs</b></li> <li>The child can write a <b>program</b> that accepts keyboard <b>input</b> and produces an on-screen <b>output</b></li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>The child can explain an <b>algorithm</b> using <b>sequence</b> and <b>repetition</b> in their own words</li> <li>The child can use logical reasoning to detect and correct errors in programs</li> <li>The child can understand that the internet transmits information as <b>packets of data</b></li> <li>The child can understand how the internet makes the <b>web</b> possible</li> </ul>	<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>The child can use and combine a range of <b>programs</b> on multiple devices</li> <li>The child can design and create <b>programs</b> on a computer in response to a given goal</li> <li>The child can analyse and evaluate information</li> </ul> <p><b>Searching -</b></p> <ul style="list-style-type: none"> <li>The child can use filters to make more effective use of a standard search engine</li> <li>The child can understand that search engines use a <b>cached</b> copy of the crawled <b>web</b> to select and rank results</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>The child can design, write and <b>debug</b> a <b>program</b> using a <b>block language</b>, based on their own ideas</li> <li>The child can experiment with computer-controlled applications</li> <li>The child can plan a solution to a problem using decomposition</li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>The child can use <b>sequence</b>, <b>selection</b> and <b>repetition</b> in <b>programs</b></li> <li>The child can write a <b>program</b> that accepts keyboard and mouse <b>input</b> and produces <b>output</b> on screen and through speakers</li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>The child can explain a rule-based <b>algorithm</b> in their own words</li> <li>The child can use logical reasoning to detect errors in <b>algorithms</b></li> <li>The child can understand how data routing works on the internet</li> <li>The child can understand how web pages are created and transmitted</li> </ul>	<p><b><u>INFORMATION TECHNOLOGY:</u></b></p> <p><b>Creating Content -</b></p> <ul style="list-style-type: none"> <li>The child can select, use and combine a range of <b>programs</b> on multiple devices</li> <li>The child can design and create systems in response to a given goal</li> <li>The child can analyse and evaluate <b>data</b></li> </ul> <p><b>Searching -</b></p> <ul style="list-style-type: none"> <li>The child can make use of a range of search engines appropriate to finding information that is required</li> <li>The child can appreciate that search engines rank pages based on the number and quality of in-bound links</li> </ul> <p><b><u>COMPUTER SCIENCE:</u></b></p> <p><b>Problem Solving -</b></p> <ul style="list-style-type: none"> <li>The child can design, write and <b>debug</b> a <b>program</b> using a second programming language, based on their own ideas</li> <li>The child can design, write and <b>debug</b> their own computer control application</li> <li>The child can solve problems using decomposition, tackling each part separately</li> </ul> <p><b>Programming -</b></p> <ul style="list-style-type: none"> <li>The child can use <b>sequence</b>, <b>selection</b>, <b>repetition</b> and <b>variables</b> in <b>programs</b></li> <li>The child can write a program that accepts <b>inputs</b> other than keyboard and mouse and produces <b>outputs</b> other than screen or speakers</li> </ul> <p><b>Logical Thinking -</b></p> <ul style="list-style-type: none"> <li>The child can give clear and precise logical explanation of a number of <b>algorithms</b></li> <li>The child can use logical reasoning to detect and correct errors in <b>algorithms</b> (and <b>programs</b>)</li> <li>The child can understand how mobile or other <b>networks</b> operate</li> <li>The child can understand how domain names are converted into <b>IP addresses</b> on the internet</li> </ul>

<p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>• The child can demonstrate that they can act responsibly when using computers</li> <li>• The child can understand the difference between acceptable and unacceptable behaviours when using digital technology</li> <li>• The child can know who to talk to about concerns and inappropriate behaviour at home or in school</li> <li>• The child can decide whether digital content is relevant for a given purpose or question</li> <li>• The child can work collaboratively with classmates on a shared wiki</li> </ul>	<p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>• The child can demonstrate that they can act responsibly when using the internet</li> <li>• The child can discuss the consequences of particular behaviours when using digital technology</li> <li>• The child can know how to report concerns and inappropriate behaviour in a range of contexts</li> <li>• The child can decide whether digital content is reliable and unbiased</li> <li>• The child can work collaboratively with classmates on a class website or blog</li> </ul>	<p><b><u>DIGITAL LITERACY:</u></b></p> <p><b>E-Safety -</b></p> <ul style="list-style-type: none"> <li>• The child can show that they can think through the consequences of their actions when using digital technology</li> <li>• The child can identify principles underpinning acceptable use of digital technologies</li> <li>• The child can know a range of ways to report concerns and inappropriate behaviour in a variety of contexts</li> <li>• The child can form an opinion about the effectiveness of digital content</li> <li>• The child can use online tools to plan and carry out a collaborative project</li> </ul>
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