

# Progression of Skills - Computing



Year R

E-Safety	<ul style="list-style-type: none"><li>• I can ask an adult when I want to use the Internet.</li><li>• I can tell an adult when something worrying or unexpected happens while I am using the Internet.</li><li>• I can be kind to my friends.</li><li>• I can talk about the amount of time I spend using a computer / tablet / game device.</li><li>• I am careful with technology devices.</li></ul>
Programming	<ul style="list-style-type: none"><li>• I can make a floor robot move.</li><li>• I can use simple software to make something happen.</li></ul> <p>I can make choices about the buttons and icons I press, touch or click on.</p>
Data Handling	<ul style="list-style-type: none"><li>• I can tell you about different kinds of information such as pictures, video, text and sound.</li></ul>
Multimedia	<ul style="list-style-type: none"><li>• I can move objects on a screen.</li><li>• I can create shapes and text on a screen.</li><li>• I can use technology to show my learning.</li></ul>
Technology in Our Lives	<ul style="list-style-type: none"><li>• I can tell you about technology that is used at home and in school.</li><li>• I can operate simple equipment.</li><li>• I can use a safe part of the Internet to play and learn.</li></ul>

## Year 1

E- Safety	<ul style="list-style-type: none"> <li>• If I have a password, I can keep it safe and private</li> <li>• I can tell an adult if I see something unexpected or worrying online</li> <li>• I can talk about why it is important to be kind and polite</li> <li>• I can recognise an age appropriate website</li> <li>• I can agree to and follow E-Safety rules sensibly</li> </ul>
General ICT Skills	<ul style="list-style-type: none"> <li>• Switching a computer / Laptop on and off</li> <li>• Logging on and off</li> <li>• Saving and Retrieval</li> </ul>
Programming	<ul style="list-style-type: none"> <li>• I can give instructions to a friend to move around (unplugged)</li> <li>• I can describe what happens when I press buttons on a robot (Bee-Bots)</li> <li>• I can press the buttons in the correct order to make the robot do what I want (Bee Bots)</li> <li>• I can begin to use the word algorithm and describe the instructions I give</li> <li>• I can predict what will happen at the end of a set of short instructions / algorithm</li> <li>• I can begin to use software to create patterns / movement on screen.</li> <li>• I can begin to use the word debug to correct a mistake in my set of instructions / algorithm.</li> </ul>
Data Handling	<ul style="list-style-type: none"> <li>• I can talk about ways different information might be shown</li> <li>• I can use technology to collect information (videos, photos, sounds etc.)</li> <li>• I can sort information and present it to others.</li> <li>• I can add information to a pictograph and talk about what I have found.</li> </ul>
Multimedia	<ul style="list-style-type: none"> <li>• I can begin to be creative with different technology</li> <li>• I can use technology to create and present my ideas</li> <li>• I can use the keyboard / word bank to enter text.</li> <li>• I can save my work in a safe place and retrieve it again.</li> </ul>
Technology in Our Live	<ul style="list-style-type: none"> <li>• I can recognise the technology used in my classroom</li> <li>• I can recognise ways technology is used in my home</li> <li>• I can identify the benefits of using technology</li> </ul>

Year 2

E - Safety	<ul style="list-style-type: none"> <li>• I can explain why it is important to keep a password safe.</li> <li>• I can describe the events online that I would need to tell an adult about</li> <li>• I can talk about why I should go online for only a short amount of time</li> <li>• I can talk about why it is important to be kind and polite in real life and online</li> <li>• I know that not everyone is who they say they are online</li> </ul>
General ICT Skills	<ul style="list-style-type: none"> <li>• Switching a computer / Laptop on and off</li> <li>• Logging on and off</li> <li>• Saving and Retrieving Work (understand the difference between save and save as)</li> </ul>
Programming	<ul style="list-style-type: none"> <li>• I can give instructions to a friend to move around (including forward, backward and turn)</li> <li>• I can talk about the order of instructions and use the word algorithm to describe it.</li> <li>• I can program a robot / software to perform a particular task.</li> <li>• I can read a friend's algorithm and tell you what will happen.</li> <li>• I can use a programming software to make an object move.</li> <li>• I can spot mistake in a program I watch and debug them.</li> </ul>
Data Handling	<ul style="list-style-type: none"> <li>• I can talk about the different ways I collect data/information (cameras, microscopes, sound recorder etc.)</li> <li>• I can make a chart / graph using the data I collect</li> <li>• I can talk about the data from the chart / graph I have created</li> <li>• I am starting to understand a branching database</li> <li>• I can decide what type of information I need to investigate a given question</li> </ul>
Multimedia	<ul style="list-style-type: none"> <li>• I can use technology to present ideas in different ways.</li> <li>• I can use the keyboard to delete and space text for others to read.</li> </ul>
Technology in Our Lives	<ul style="list-style-type: none"> <li>• I can explain why there is technology used in my classroom / home / community.</li> <li>• I am beginning to understand that other people have created the information I use</li> <li>• I can talk about the benefits of technology</li> <li>• I can talk about the difference between the internet and the real world.</li> </ul>

Year 3

<p>E - Safety</p>	<ul style="list-style-type: none"> <li>• I can talk about what makes a secure password and why they are important.</li> <li>• I can protect my personal information when I do different things online.</li> <li>• I can tell you ways to communicate with others online.</li> <li>• I can use the safety features of websites as well as reporting concerns to an adult.</li> <li>• I can recognise websites and games appropriate for my age.</li> <li>• I can make good choices about how long I spend online.</li> <li>• I know to ask an adult before downloading files and games from the Internet.</li> </ul>
<p>General ICT Skills</p>	<ul style="list-style-type: none"> <li>• I can save and retrieve work on the Internet, the school network or my own device.</li> <li>• I can talk about the parts of a computer.</li> <li>• I can resize windows I am using</li> <li>• I can create / adapt folders where I save my work.</li> </ul>
<p>Programming</p>	<ul style="list-style-type: none"> <li>• I can break an open-ended problem up into smaller parts.</li> <li>• I can put programming commands into a sequence to achieve a specific outcome.</li> <li>• I keep testing my program and can recognise when I need to debug it.</li> <li>• I can use repeat commands.</li> <li>• I can describe the algorithm I will need for a simple task.</li> </ul> <p>I can detect a problem in an algorithm which could result in unsuccessful programming.</p>
<p>Data Handling</p>	<ul style="list-style-type: none"> <li>• I can talk about the different ways data can be organised.</li> <li>• I can search a ready-made database to answer questions.</li> <li>• I can collect data help me answer a question.</li> <li>• I can add to a database.</li> <li>• I can make a branching database.</li> <li>• I can use a data logger to monitor changes and can talk about the information collected.</li> </ul>
<p>Multimedia</p>	<ul style="list-style-type: none"> <li>• I can create different effects with different technology tools.</li> <li>• I can combine a mixture of text, graphics and sound to share my ideas and learning.</li> <li>• I can use appropriate keyboard commands to amend text on my device, including making use of a spellchecker.</li> <li>• I can evaluate my work and improve its effectiveness.</li> </ul>

	<ul style="list-style-type: none"><li>• I can use an appropriate tool to share my work online.</li></ul>
Technology in Our Lives	<ul style="list-style-type: none"><li>• I can describe the World Wide Web as the part of the Internet that contains websites.</li><li>• I can use search tools to find and use an appropriate website.</li></ul> <p>I think about whether I can use images that I find online in my own work.</p>

Year 4

E - Safety	<ul style="list-style-type: none"> <li>• I choose a secure password when I am using a website.</li> <li>• I can talk about the ways I can protect myself and my friends from harm online.</li> <li>• I can recognise the safety features of websites as well as knowing when to report concerns to an adult.</li> <li>• I know that anything I post online can be seen by others.</li> <li>• I choose websites and games that are appropriate for my age.</li> <li>• I can help my friends make good choices about the time they spend online.</li> <li>• I can talk about why I need to ask a trusted adult before downloading files and games from the Internet.</li> </ul>
General ICT Skills	<ul style="list-style-type: none"> <li>• I can create and adapt folders where work is saved</li> <li>• I can resize a window I am using.</li> <li>• I know how to print from a laptop/computer</li> <li>• I can take Screen Shots</li> <li>• I can resize digital images</li> </ul>
Programming	<ul style="list-style-type: none"> <li>• I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts.</li> <li>• I can use an efficient procedure to simplify a program.</li> <li>• I know that I need to keep testing my program while I am putting it together.</li> <li>• I can use a variety of tools to create a program.</li> <li>• I can recognise an error in a program and debug it.</li> <li>• I recognise that an algorithm will help me to sequence more complex programs.</li> <li>• I recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</li> </ul>
Data Handling	<ul style="list-style-type: none"> <li>• I can organise data in different ways.</li> <li>• I can collect data and identify where it could be inaccurate.</li> <li>• I can plan, create and search a database to answer questions.</li> <li>• I can choose the best way to present data to my friends.</li> <li>• I can use a data logger to record and share my readings with my friends.</li> </ul>
Multimedia	<ul style="list-style-type: none"> <li>• I can use photos, video and sound to create an atmosphere when presenting to different audiences.</li> <li>• I am confident to explore new media to extend what I can achieve.</li> <li>• I can change the appearance of text to increase its effectiveness.</li> <li>• I can create, modify and present documents for a particular purpose.</li> </ul>

	<ul style="list-style-type: none"> <li>• I can use a keyboard confidently and make use of a spellchecker to write and review my work.</li> <li>• I can use an appropriate tool to share my work and collaborate online.</li> </ul> <p>I can give constructive feedback to my friends to help them improve their work and refine my own work.</p>
Technology in Our Lives	<ul style="list-style-type: none"> <li>• I can tell you whether a resource I am using is on the Internet, the school network or my own device.</li> <li>• I can identify key words to use when searching safely on the World Wide Web.</li> <li>• I think about the reliability of information I read on the World Wide Web.</li> <li>• I can tell you how to check who owns photos, text and clipart.</li> <li>• I can create a hyperlink to a resource on the World Wide Web.</li> </ul>



## Year 5

<p><b>E-Safety</b></p>	<ul style="list-style-type: none"> <li>• I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult.</li> <li>• I know that anything I post online can be seen, used and may affect others.</li> <li>• I can talk about the dangers of spending too long online or playing a game.</li> <li>• I can explain the importance of communicating kindly and respectfully.</li> <li>• I can discuss the importance of choosing an age-appropriate website or game.</li> <li>• I can explain why I need to protect my computer or device from harm.</li> </ul>
<p><b>General ICT Skills</b></p>	<ul style="list-style-type: none"> <li>• I can create and adapt folders where work is saved</li> <li>• I can resize a window I am using.</li> <li>• I know how to print from a laptop/computer</li> <li>• I can take Screen Shots</li> <li>• I can resize digital images</li> </ul>
<p><b>Programming</b></p>	<ul style="list-style-type: none"> <li>• I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</li> <li>• I can refine a procedure using repeat commands to improve a program.</li> <li>• I can use a variable to increase programming possibilities.</li> <li>• I can change an input to a program to achieve a different output.</li> <li>• I can use 'if' and 'then' commands to select an action.</li> <li>• I can talk about how a computer model can provide information about a physical system.</li> <li>• I can use logical reasoning to detect and debug mistakes in a program.</li> <li>• I use logical thinking, imagination and creativity to extend a program.</li> </ul>
<p><b>Data Handling</b></p>	<ul style="list-style-type: none"> <li>• I can use a spreadsheet and database to collect and record data.</li> <li>• I can choose an appropriate tool to help me collect data.</li> <li>• I can present data in an appropriate way.</li> <li>• I can search a database using different operators to refine my search.</li> <li>• I can talk about mistakes in data and suggest how it could be checked.</li> </ul>
<p><b>Multimedia</b></p>	<ul style="list-style-type: none"> <li>• I can use text, photo, sound and video editing tools to refine my work.</li> <li>• I can use the skills I have already developed to create content using unfamiliar technology.</li> <li>• I can select, use and combine the appropriate technology tools to create effects that will have an impact on others.</li> <li>• I can select an appropriate online or offline tool to create and share ideas.</li> <li>• I can review and improve my own work and support others to improve their work.</li> </ul>

Technology in  
Our Lives

- I can describe different parts of the Internet.
- I can use different online communication tools for different purposes.
- I can use a search engine to find appropriate information and check its reliability.
- I can recognise and evaluate different types of information I find on the World Wide Web.
- I can describe the different parts of a webpage.
- I can find out who the information on a webpage belongs to.

Year 6

E-Safety	<ul style="list-style-type: none"> <li>• I protect my password and other personal information.</li> <li>• I can explain the consequences of sharing too much about myself online.</li> <li>• I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.</li> <li>• I can explain the consequences of spending too much time online or on a game.</li> <li>• I can explain the consequences to myself and others of not communicating kindly and respectfully.</li> <li>• I protect my computer or device from harm on the Internet.</li> </ul>
General ICT Skills	<ul style="list-style-type: none"> <li>• I can create and adapt folders where work is saved</li> <li>• I can resize a window I am using.</li> <li>• I know how to print from a laptop/computer</li> <li>• I can take Screen Shots</li> <li>• I can resize digital images</li> </ul>
Programming	<ul style="list-style-type: none"> <li>• I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.</li> <li>• I can explain and program each of the steps in my algorithm.</li> <li>• I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm.</li> <li>• I can recognise when I need to use a variable to achieve a required output.</li> <li>• I can use a variable and operators to stop a program.</li> <li>• I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</li> <li>• I can use logical reasoning to detect and correct errors in a algorithms and programs.</li> </ul>
Data Handling	<ul style="list-style-type: none"> <li>• I can plan the process needed to investigate the world around me.</li> <li>• I can select the most effective tool to collect data for my investigation.</li> <li>• I can check the data I collect for accuracy and plausibility.</li> <li>• I can interpret the data I collect.</li> <li>• I can present the data I collect in an appropriate way.</li> <li>• I use the skills I have developed to interrogate a database.</li> </ul>
Multimedia	<ul style="list-style-type: none"> <li>• I can talk about audience, atmosphere and structure when planning a particular outcome.</li> <li>• I can confidently identify the potential of unfamiliar technology to increase my creativity.</li> <li>• I can combine a range of media, recognising the contribution of each to achieve a particular outcome.</li> </ul>

	<ul style="list-style-type: none"> <li>• I can tell you why I select a particular online tool for a specific purpose.</li> <li>• I can be digitally discerning when evaluating the effectiveness of my own work and the work of others.</li> </ul>
Technology in Our Lives	<ul style="list-style-type: none"> <li>• I can tell you the Internet services I need to use for different purposes.</li> <li>• I can describe how information is transported on the Internet.</li> <li>• I can select an appropriate tool to communicate and collaborate online.</li> <li>• I can talk about the way search results are selected and ranked.</li> <li>• I can check the reliability of a website.</li> <li>• I can tell you about copyright and acknowledge the sources of information that I find online.</li> </ul>