

# End of KS1 - Technology in our Lives

<b>Computing</b>	<b>Technology in our lives</b>	<b>E-Safety</b>	<ul style="list-style-type: none"> <li>• Understand the meaning of personal information.</li> <li>• Understand why it is important to keep passwords and personal information private.</li> <li>• Recognise age appropriate websites.</li> <li>• Understand how to use technology safely.</li> <li>• Understand what to do if they have concerns about content or contact.</li> <li>• Understand why it is important to be respectful online.</li> <li>• Know that not everyone online is who they say they are.</li> </ul>
		<b>My Digital World</b>	<ul style="list-style-type: none"> <li>• Recognise common uses of technology at home and in the community.</li> <li>• Recognise the way we use technology in our classrooms.</li> <li>• Identify the benefits of technology.</li> <li>• Understand the differences between the internet and the physical world.</li> <li>• Understand the information online has been produced by other people.</li> </ul>

## Year 1

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"> <li>• Understand what algorithms are.</li> <li>• Describe the actions and processes to make something happen and begin to use the word algorithm.</li> <li>• Use software to create movement and patterns on a screen i.e. apps</li> <li>• Use physical hardware to create movement and patterns. I.e. beebots.</li> <li>• Make predictions on what will happen for a short sequence of instructions both online and physical hardware.</li> </ul>
		<b>Information technology</b>	<ul style="list-style-type: none"> <li>• Use technology to create and organise information. I.e. photos, videos,</li> <li>• Understand how to store information and retrieve it again.</li> <li>• Use index fingers (left and right hand) on a keyboard to build words and sentences. Know when and how to use the SPACEBAR (thumbs) to make spaces between words</li> </ul>

## Year 2

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"><li>• Watch a simple program execute and spot where it goes wrong so it can be debugged.</li><li>• Use logical reasoning to make predictions on what will happen for a short sequence of instructions.</li><li>• Understand programs execute by following precise instructions.</li><li>• Program a robot, human, software to do a particular movement and talk about this as an algorithm.</li><li>• Talk about similarities and differences between physical hardware and software on a screen. I.e. beebot app and beebots.</li></ul>
		<b>Information technology</b>	<ul style="list-style-type: none"><li>• Describe the different ways to collect, organise and store digital content.</li><li>• Use technology to present ideas in different ways.</li><li>• Use keyboard to enter text (index fingers left and right hand). Know when and how to use the RETURN/ ENTER key. Use SHIFT and CAPS LOCK to enter capital letters. Use DELETE and BACKSPACE buttons to correct text. Create sentences, SAVE &amp; edit later.</li></ul>

# Lower KS2

<b>Computing</b>  <b>Lower KS2</b>	<b>Technology</b> <b>in our lives</b>	<b>E-Safety</b>	<ul style="list-style-type: none"> <li>• Identify some ways to report concerns about content and contact.</li> <li>• Understand how to use technology safely, respectfully and responsibly and begin to know the consequences if you don't.</li> <li>• Start to understand acceptable and unacceptable behaviour.</li> <li>• Recognise age appropriate content including games.</li> <li>• Understand the importance of protecting personal information online</li> <li>• Understand the importance of protecting myself and my friends online and the best ways to do this, including reporting concerns to an adult.</li> </ul>
		<b>My Digital World</b>	<ul style="list-style-type: none"> <li>• Start to evaluate the effectiveness of my own work and others.</li> <li>• Start to understand the opportunities computer network offers for communication and collaboration.</li> <li>• Recognise the different types of information on the internet.</li> </ul>

## Year 3

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"> <li>• Write and input programming commands to accomplish specific goals.</li> <li>• Use sequence in programming.</li> <li>• Detect a problem in an algorithm and debug.</li> <li>• Understand the reason to keep testing a program and recognise when it need debugging.</li> <li>• Change an input to a program to get a different output.</li> </ul>
		<b>Information technology</b>	<ul style="list-style-type: none"> <li>• Use search technologies effectively.</li> <li>• Use a variety of software to accomplish goals.</li> <li>• Collect information to help answer questions.</li> <li>• Talk and present the information collected.</li> <li>• Design and create content to share online</li> <li>• Use individual fingers to input text and use SHIFT key to type characters.</li> <li>• Amend text by highlighting and using SELECT/ DELETE and COPY/ PASTE.</li> <li>• Create and begin to edit presentation documents and text, experimenting with fonts, size, colour, alignment for emphasis and effect.</li> </ul>

## Year 4

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"> <li>• Design and create programs that accomplish specific goals</li> <li>• Debug programs that accomplish specific goals</li> <li>• Use sequence and repetition in programs</li> <li>• Control or simulate physical systems</li> <li>• Use logical reasoning to detect and correct errors in programs</li> <li>• Understand how computer networks can provide multiple services, such as the World Wide Web</li> <li>• Appreciate how search results are selected</li> <li>• Understand you need to keep testing a program while putting it together</li> </ul>
		<b>Information technology</b>	<ul style="list-style-type: none"> <li>• Select a variety of software to accomplish given goals</li> <li>• Select, use and combine internet services</li> <li>• Use a keyboard confidently</li> <li>• Collecting, analysing, evaluating and presenting data and information.</li> <li>• Use an appropriate tool to share my work and collaborate online.</li> <li>• Organise data in different ways.</li> <li>• Use a keyboard effectively, including the use of keyboard shortcuts.</li> <li>• Be confident in creating and modifying text and presentation documents to achieve a specific purpose.</li> </ul>

## Upper KS2

<b>Computing Upper KS2</b>	<b>Technology in our lives</b>	<b>E-Safety</b>	<ul style="list-style-type: none"> <li>• Identify a range of ways to report concerns about content and contact.</li> <li>• Understand how to protect the computer from harm on the internet.</li> <li>• Understand how to use technology safely, respectfully and responsibly and know the consequences if you don't.</li> <li>• Recognise acceptable and unacceptable behaviour.</li> <li>• Recognise age appropriate content including games.</li> <li>• Understand the importance of protecting personal information online and the consequences of sharing too much</li> <li>• Understand the importance of protecting myself and my friends online and the best ways to do this, including reporting concerns to an adult.</li> </ul>
		<b>My Digital World</b>	<ul style="list-style-type: none"> <li>• Be digitally discerning when evaluating the effectiveness of my own work and others.</li> <li>• Understand the opportunities computer network offers for communication and collaboration.</li> <li>• Understand the meaning of copyright and explain why it is important to consider who owns the content before using it.</li> </ul>

- Recognise the different types of information on the internet.

## Year 5

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"> <li>● Design an algorithm for a specific outcome and use this to write a program.</li> <li>● Use sequence, repetition and selection in programs</li> <li>● Use logical reasoning to explain how some simple algorithms work</li> <li>● Use logical reasoning to detect and correct errors in algorithms</li> <li>● Recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</li> <li>● Talk about procedures as parts of a program</li> <li>● Identify difficulties and articulate a solution for errors in a program</li> </ul>
		<b>Information technology</b>	<ul style="list-style-type: none"> <li>● Collecting, analysing, evaluating and presenting data and information.</li> <li>● Select an appropriate online or offline tool to create and share ideas.</li> <li>● Understand computer networks, including the internet</li> <li>● Appreciate how search results are ranked</li> <li>● Explore the use of video, animation, and green screening</li> <li>● Know how to use a spell check to review my work.</li> <li>● Explore the effects of multimedia (photos, video, sound) in a presentation or video and show how they can be modified.</li> </ul>

## Year 6

<b>Computing</b>	<b>Skills</b>	<b>Computer science</b>	<ul style="list-style-type: none"><li>• Decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program.</li><li>• Confidently use and explain sequence, repetition and selection in programs to produce a specific goal.</li><li>• Work with variables to increase programming possibilities i.e. a score/trigger an action in a game</li><li>• Use logical reasoning to detect and correct errors in algorithms</li><li>• Recognise that using algorithms will also help solve problems in other learning such as Maths, Science and Design and Technology.</li><li>• Record in some detail the steps (the algorithm) that are required to achieve an outcome and refer to this when programming</li><li>• Increase confidence in the process to plan, program, test and review a program</li></ul>
		<b>Information technology</b>	<ul style="list-style-type: none"><li>• Collecting, analysing, evaluating and presenting data and information.</li><li>• Use search technologies effectively.</li><li>• Appreciate how search results are selected and ranked.</li><li>• Collect information and media from a range of sources (considering copyright issues) into a presentation for a specific audience.</li></ul>