

	Computer Science	Information Technology	Digital Literacy
EYFS	Take a simple picture on a device.		
Pupils will learn to:	Operate simple electronic devices.		
	Discuss devices used both at home and at school	Type simple words on a word document.	Start to identify some forms of technology at home and in school.
Sticky Knowledge	<i>Represent ideas, thoughts and feelings through design, technology, art, music, dance, roleplay and stories.</i> <i>Children recognise that a range of technology is used in places such as homes and schools.</i> <i>Know when to select technology for particular purposes.</i>		
Year 1	Understand what an algorithm is.	Create a series of instructions, planning a journey	Begin to understand what is meant by technology.
Pupils will learn to:	Identify when simple algorithm steps are out of order.	for a programmable toy.	Identify a range of technology in and out of school.
	Read a simple code and make predictions e.g. Beebot	Name, save and retrieve their work.	Understand the importance of keeping information safe e.g. username and password and actively demonstrate this in lessons
		Navigate simple online resources to find information.	Save own work in correct folder with some support.
Sticky Knowledge	<i>Instructions are the ordered steps we use to complete a task.</i> <i>Know how to create, save and retrieve information.</i> <i>Know sound can be recorded and played back.</i> <i>Know not to reveal personal information unless it is safe to do so.</i>		
Year 2	Explain what an algorithm is and show an awareness	Organise and retrieve simple data.	Retrieve digital content
Pupils will learn to:	of the need to be precise.	Make simple searches using online platforms.	Use a search engine to find relevant, purposeful information.
	Create a simple program.	Confidently create, name, save and retrieve content.	Demonstrate how to use a search engine to others.
	Have an awareness of the need for logical steps of instructions.	Use a range of media in their content, including photos, text and sound.	Make links between different types of technology.
	Correctly identify and correct some errors.		Understand the implications of inappropriate online searches.
	Write a cause and effect sentence of what will happen in a program.		Begin to understand how things are shared electronically.
			Know ways of reporting inappropriate behaviours and content to a trusted adult.
			Begin to develop an understanding of email safety.
Sticky Knowledge	<i>Know how to write and test a simple program eg coding</i> <i>Know searching the internet can lead to answers and information.</i> <i>Know technology must be used respectfully.</i>		

<p>Year 3</p> <p>Pupils will learn to:</p>	<p>Turn a real life situation into an algorithm for a program by deconstructing it into manageable parts.</p> <p>Structure their program in logical, achievable steps.</p> <p>Start to absorb some new knowledge of coding structures.</p> <p>Attempt to sort through more complex codes.</p> <p>List a range of ways that the internet can be used to communicate.</p> <p>Use some methods of communication, e.g. open and respond to emails.</p> <p>Describe appropriate email conversations.</p> <p>Predict the outcomes of programs that have several steps.</p> <p>Correctly identify and correct errors in their own progra</p>	<p>Carry out simple searches to retrieve digital content.</p> <p>Understand when they are connected to the internet.</p> <p>Collect, analyse, evaluate and present data and information using a selection of software.</p> <p>Consider what software is most appropriate for the given task.</p> <p>Create purposeful content.</p>	<p>Demonstrate the importance of having a secure password.</p> <p>Understand the importance of not sharing their passwords with others.</p> <p>Explain the negative implications of failing to keep passwords safe and secure.</p> <p>Understand the importance of staying safe when using familiar communication tools.</p> <p>Know more than one way to report unacceptable content and contac</p>
<p><i>Sticky Knowledge</i></p>	<p><i>Know how to write programs that accomplish specific goals.</i></p> <p><i>Know how to design and create and present digital content</i></p> <p><i>Know how to get help with E-safety concerns.</i></p> <p><i>Know when technology is or isn't beneficial.</i></p>		

<p>Year 4 Pupils will learn to:</p>	<p>When creating an algorithm, designs show that they are thinking of the required task and how to accomplish this. Use coding structures for selection and repetition. Use timers to achieve repetition effects, becoming more logical and integrated into their program designs. Understand 'if' statements and attempt to combine these with other coding structures. Trace code and use step-through methods to identify errors in code. Make logical attempts to correct errors. Read programs with several steps. Computing year group objectives and progression grid I can produce and upload a pod cast. Digital Literacy I recognise acceptable and unacceptable behaviour using technology. Predict the outcomes on programs accurately. Recognise the main component parts of hardware which allow computers to join and form a network. Improve their ability to understand the online safety implications associated with different communication methods.</p>	<p>Understand the function, features and layout of a search engine. Appraise selected webpages for credibility and information at a basic level. Make improvements to digital solutions based on feedback. Make informed software choices when presenting information and data. Create linked content using a range of software. Share digital content within their community.</p>	<p>Explore key concepts relating to online safety using concept mapping. Help others to understand the importance of online safety. Know a range of ways of reporting inappropriate content and contact.</p>
<p>Sticky Knowledge</p>	<p><i>Know variables can be used to control models.</i> <i>Know how to de-bug programs.</i> <i>Know how to collect and present data.</i> <i>Know what is acceptable and unacceptable behaviour using technology.</i></p>		

<p>Year 5 Pupils will learn to:</p>	<p>Attempt to turn more complex real-life situations into algorithms. Test and debug their program as they go. Use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code. Translate algorithms that include sequence, selection and repetition into code with increasing ease. Combining sequence, selection and repetition with other coding structures to achieve their algorithm design. Understand the value of computer networks and are aware of the main dangers. Recognise what personal information is and can explain how this can be kept safe. Select the most appropriate form of online communications dependent on audience and digital content.</p>	<p>Search with greater complexity for digital content when using a search engine. Explain in some detail how credible a webpage is and the information it contains. Make appropriate improvements to digital solutions based on feedback received. Confidently comment on the success of their work. Objectively review solutions from others. Collaboratively create content and solutions using digital features within software. Use several ways of sharing digital content.</p>	<p>Have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Implicitly relate appropriate online behaviour to their right or personal privacy and mental wellbeing of themselves and others.</p>
<p>Sticky Knowledge</p>	<p><i>Know how to design algorithms that use repetition.</i> <i>Know that internet search results are ranked.</i> <i>Know how to edit films.</i> <i>Know that choices must be made when using technology and that not all online content is true or safe.</i></p>		

Year 6 Pupils will learn to:	<p>Turn a more complex programming task into an algorithm by identifying the important aspects of the task and decomposing them in a logical way.</p> <p>Apply skills from previous programs.</p> <p>Test and debug their program as they go.</p> <p>Translate algorithms that include sequence, selection and repetition into code.</p> <p>Coding displays an improving understanding of variables in coding, outputs such as sound and movement.</p> <p>Children know what WAN and LAN are and can describe how they access the internet in school.</p>	<p>Readily apply filters when searching for digital content.</p> <p>Explain in detail how credible a webpage is and the information it contains.</p> <p>Compare a range of digital content sources and are able to rate them in terms of content quality and accuracy.</p> <p>Use critical thinking skills in everyday use of online communication.</p> <p>Make clear connections to the audience when designing and creating digital content.</p> <p>Use criteria to evaluate the quality of digital solutions.</p> <p>Identify, improve and make refinements to digital media.</p>	<p>Demonstrate the safe and respectful use of a range of different technologies and online services.</p> <p>Identify more discreet inappropriate behaviours through developing critical thinking.</p> <p>Recognise the value in preserving their privacy when online for their own and others safety.</p>
Sticky Knowledge	<p><i>Know problems can have more than one solution.</i></p> <p><i>Know how to use a range of technology for a specific project.</i></p> <p><i>Know the risks and responsibilities of using online technology use and identify how to minimise risks and make responsible choices.</i></p>		