



## PROGRESSION IN COMPUTING

	Reception	AREAS OF STUDY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
COMPUTING	<p>Recognise that a range of technology is used in places such as homes and schools. (Role Play Areas).</p> <p>Talk about own experiences of technology.</p>	<b>ONLINE SAFETY and DIGITAL LITERACY</b>	<ul style="list-style-type: none"> <li>Know that the internet is accessed all over the World and know some devices are connected to the internet.</li> <li>Know that they should always ask a responsible adult if they want to use a device and ask for help if they see anything that worries them.</li> <li>With support from an adult be able to find information on the internet</li> </ul>	<ul style="list-style-type: none"> <li>Know devices that enable direct communication between people through images and text.</li> <li>Know what personal information is and that they should never share this with anyone they don't know.</li> <li>Know that they should tell a trusted adult if they are upset or worried about anything on a device.</li> <li>With support be able to use a safe search engine e.g. swiggle</li> </ul>	<ul style="list-style-type: none"> <li>Know that some people on the internet should not be trusted.</li> <li>Know that concerns about what they see on-line should be reported to a trusted adult.</li> <li>Create and use a simple password.</li> <li>Use a Search engine to find information given key words.</li> <li>Know which websites are useful and begin to understand all might not be trustworthy.</li> <li>Be able to log in and out of websites used at school.</li> <li>Know that using technology can sometimes be inappropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Know that pictures and text shared on-line can end up with strangers.</li> <li>Reliably know what to do if they are exposed to unpleasant materials on any device</li> <li>Know that having a balance of online and offline activities is important.</li> <li>Reliably uses a more complex password to access resources..</li> <li>Know what the key words are to enter into a Search engine to find information they want.</li> <li>Can select useful websites from the results of a search.</li> </ul>	<ul style="list-style-type: none"> <li>Know the risks posed to them by using Social Media, including understanding that people may not be who they say they are.</li> <li>Know that it is irresponsible to share images of friends on-line without their permission.</li> <li>Know that a balance of online and offline activities is important to maintain good health.</li> <li>Know how to report concerns on-line.</li> <li>Effectively use a search engine to find multiple criteria using AND/OR to refine searches.</li> <li>Know how to compare information from different websites and know that some sites may show bias.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to reduce the risks posed by using Social Media by managing their friend lists and privacy settings.</li> <li>Be able to maintain a healthy balance of online and offline activities and know that some activities may affect their emotional wellbeing.</li> <li>Know that it is illegal to post or view 'rude' images of children</li> <li>Know that hacking or misusing someone else's account is illegal.</li> <li>Know that search results can be manipulated by sponsorship and advertising.</li> <li>Know how to validate information found through searches by checking more than one source.</li> <li>Know that some news is 'fake'.</li> </ul>
	<b>Choices Internet Website</b>	<b>PROGRESSIVE VOCABULARY</b>	<b>Rules Online Devices</b>	<b>Cyber-bullying Digital Footprint Keyword Searching Appropriate/ Inappropriate Private Information E-mail Safe search engine</b>	<b>Reported Password Trustworthy</b>	<b>Offline Blogs</b>	<b>Risks Irresponsible Multiple Criteria</b>	<b>Privacy settings Hacking Manipulate Validate</b>
	<p>Select and use technology for particular purposes e.g. ipads to take photos and videos.</p>	<b>INFORMATION TECHNOLOGY</b>	<ul style="list-style-type: none"> <li>Be able to log onto a computer</li> <li>Be able to navigate around the screen with a mouse or touchpad.</li> <li>Know how to type text using a space bar for separate words to create something meaningful.</li> <li>Be able to independently find and use an app on a tablet eg. Take and view a video or photograph.</li> </ul>	<ul style="list-style-type: none"> <li>Be able to save, retrieve and print work.</li> <li>Know how to type and format text including basic punctuation and capital letters.</li> <li>Be able to confidently use a pointing device e.g. mouse, touchpad.</li> <li>Be able to add and create simple images.</li> <li>Be able to combine simple text and graphics, for instance create a poster for a purpose.</li> </ul>	<ul style="list-style-type: none"> <li>Be able to log in to computer systems as themselves and can find their own documents.</li> <li>Know how to open shared documents and pictures.</li> <li>Know how to use software to create a simple brochure or poster (publisher).</li> <li>Know how to sequence and add to slides to make a simple presentation (Power point).</li> </ul>	<ul style="list-style-type: none"> <li>Be able to save a document in a shared folder and retrieve this to continue working on it.</li> <li>Be able to organise their personal folder effectively.</li> <li>Know how to change font size and style; including shapes and backgrounds and to use the Spellcheck function.</li> <li>To be able to use sequence to create an effective presentation or video – Power point.</li> </ul>	<ul style="list-style-type: none"> <li>Be able to share work from their personal folder to work collaboratively with others.</li> <li>Know how to use software to create an effective poster or leaflet.</li> <li>Be able to select the best program for the task.</li> <li>Using software know how to add data into a prepared spreadsheet to answer simple questions.</li> <li>Independently, prepare an effective presentation to</li> </ul>	<ul style="list-style-type: none"> <li>Know how to use the main features of office software to produce suitable documents and presentations for an audience (Microsoft Office)</li> <li>Know how to edit a picture (Paint)</li> <li>Know how to create a simple formula in a spreadsheet to work out given mathematical tasks such as adding a set of numbers.</li> </ul>

					<ul style="list-style-type: none"> <li>Create a meaningful document that contains both pictures and text</li> </ul>	<ul style="list-style-type: none"> <li>Be able to deliver a simple presentation to their peers.</li> </ul>	show their learning to others which includes some elements of timing or sequence.	<ul style="list-style-type: none"> <li>Know how to create and sequence a video, add sound effects, transitions and title/subtitles.</li> <li>To be able to use two or more programmes to create a final piece of work ( e.g. editing a picture before inserting a document)</li> </ul>
<b>Screen Mouse keyboard</b>	<b>PROGRESSIVE VOCABULARY</b>	<b>Space Bar Touch pad Log on</b>	<b>Caps Lock Back space Enter/Return Image Insert Save Print</b>	<b>Presentation Slide Copy Paste Shared document</b>	<b>Shared folder Personal folder Font Spell Check Bullet Points</b>	<b>Multimedia Transitions Animation Spreadsheet</b>	<b>Formula Edit</b>	
Complete a simple program on a computer.	<b>COMPUTER SCIENCE</b>	<ul style="list-style-type: none"> <li>Know which button on a device represents which action e.g. Bee Bot.</li> <li>Know how to program a robot to follow simple sequence of instructions.</li> <li>Make a simple sequence of instructions.</li> <li>Be able to make simple predictions about an algorithm and a programme – The Bee Bot will go ...</li> <li>Be able to change the program to improve the route.</li> </ul>	<ul style="list-style-type: none"> <li>Know how to program a robot to achieve a set goal (sequence of 6-7 instructions – maze).</li> <li>Begin to use block programming to complete a simple program. (Scratch Junior / Alex)</li> <li>Be able to debug more complex problems e.g. a route on a bee bot maze.</li> </ul>	<ul style="list-style-type: none"> <li>Be able to use a block program (Scratch) to make a simple programme using sequencing and timing.</li> <li>Use repeat loops to create a programme to draw regular 2-D shapes.</li> <li>Independently be able to debug basic mistakes.</li> <li>Begin to use conditionals – If I click here then this happens (Scratch).</li> </ul>	<ul style="list-style-type: none"> <li>Be able to use a program to sequence, use conditionals and use a variety of inputs and outputs (Scratch – steer an object by using keys).</li> <li>Be able to explain how their program works (e.g. by annotating a print out).</li> <li>Be able to modify their program and be able to predict the effects of any changes.</li> <li>Know how to break sets of instructions into short steps to achieve a goal (e.g. drawing repeated squares to make a pattern).</li> </ul>	<ul style="list-style-type: none"> <li>Use customisation to change a working program to change its effect ( e.g. backgrounds and sprites in Scratch).</li> <li>Use loops to achieve goals (Scratch – shapes, letters).</li> <li>Use variables, conditional sentences (when/then), external triggers and loops to achieve set goals( e.g. creating a game in Scratch, Creating a game in Kodu with a scoring system).</li> </ul>	<ul style="list-style-type: none"> <li>Use conditional sentences (when/then) to program objects (Kodu / Scratch).</li> <li>As above, but use mathematical expressions when constructing conditionals e.g. trigger winning when (If loops &gt;5 then ...)</li> <li>Be able to explain what a program will do and accurately predict the effect of changes.</li> <li>Be able to reliably modify existing algorithms and code to change the effect of the program.</li> <li>Be able to make an efficient program by using an effective algorithm and techniques such as loops and procedures.</li> </ul>	
<b>Equipment Buttons Movement Forwards Backwards</b>	<b>VOCABULARY</b>	<b>Instructions Robots Patterns Program Predict</b>	<b>Debug Sequence Algorithm Bugs</b>	<b>Repeat loops Conditionals</b>	<b>Inputs Outputs</b>	<b>Sprites Variables External Triggers</b>	<b>Mathematical expressions Efficient Program Procedures</b>	