

Subject:	<b>COMPUTING</b>
Phase:	<b>KS1</b>

Attitudes	Key Skills	Strategies	Evidence
Enthusiasm for computing.	<p><b>PROGRAMMING</b></p> <ul style="list-style-type: none"> <li>To create and debug simple algorithms (<i>a list of instructions</i>)</li> <li>To be able to predict the behaviour of programs by interpreting code already written (<i>reading a set of instructions in order to describe what should happen</i>)</li> </ul> <p><b>WIDER USE OF TECHNOLOGY</b></p> <ul style="list-style-type: none"> <li>To recognise alternative uses for technology <ul style="list-style-type: none"> <li>Photography and manipulation</li> <li>Digital artwork</li> <li>Research for other subjects</li> </ul> </li> </ul> <p><b>E-SAFETY</b></p> <ul style="list-style-type: none"> <li>To understand the dangers of technology (physical and on the internet) and to know strategies to stay safe both online and using electrical items <ul style="list-style-type: none"> <li>To know to keep personal information private</li> <li>To know how to seek help online (<i>Switched On website, etc.</i>)</li> </ul> </li> </ul> <p><b>DISCUSSION AND UNDERSTANDING</b></p> <ul style="list-style-type: none"> <li>To be able to use technical &amp; clear language <ul style="list-style-type: none"> <li>To describe algorithms (<i>a set of instructions</i>)</li> <li>To describe the process of de-bugging (<i>having a problem with your algorithms and going through them all until you find what is causing the issue</i>)</li> </ul> </li> </ul>	Class teaching with: <ul style="list-style-type: none"> <li><b>BeeBots (R,1)</b> – <i>practical use of technology, simple instructions</i></li> <li><b>Lightbot Jr (1,2)</b> – <i>programming, using algorithms</i></li> <li><b>Scratch Jr (2)</b> – <i>more complex programming with algorithms on tablets</i></li> </ul>	<ul style="list-style-type: none"> <li>Observations in lessons</li> <li>Chn writing sets of instructions</li> <li>Screenshots of programmes in Lightbot / Scratch Jr</li> </ul>
Confidence and fluency in programming.		Class teaching with: <ul style="list-style-type: none"> <li><b>Art Programs (R,1)</b> – <i>drawing using tablets / computers</i></li> <li><b>Camera app (1)</b> – <i>taking photos, accessing them at a later date</i></li> <li><b>Comic Strip-It (2)</b> – <i>taking photos, manipulate by adding text and images</i></li> </ul>	<ul style="list-style-type: none"> <li>Observations in lessons</li> <li>Screenshots of work in apps</li> <li>Saved copies of work in Dropbox folders</li> </ul>
Resilience in debugging simple programming problems.		Class teaching with: <ul style="list-style-type: none"> <li><b>Using Everyday ICT (R)</b> – <i>how to use PC / tablet for simple tasks (opening / closing software, internet, etc.)</i></li> <li><b>E-Safety (1,2)</b> – <i>staying safe online, use of personal information, using school website / VLE</i></li> </ul>	<ul style="list-style-type: none"> <li>Observations in lessons</li> </ul>
Familiarity with technology they find in their own environments.		Class teaching with: <ul style="list-style-type: none"> <li><b>BeeBots (R,1)</b> – <i>practical use of technology, simple instructions</i></li> <li><b>Lightbot Jr (1,2)</b> – <i>programming, using algorithms</i></li> <li><b>Scratch Jr (2)</b> – <i>more complex programming with algorithms on tablets</i></li> </ul>	<ul style="list-style-type: none"> <li>Discussions with chn during lessons (particularly programming lessons)</li> </ul>
Awareness of the dangers of technology and strategies to combat these.			
Articulate and confident users of technology.			

Subject:	<b>COMPUTING</b>
Phase:	<b>KS2</b>

Attitudes	Key Skills	Strategies	Evidence for Assessment
<p>Enthusiasm for computing.</p> <p>Growing confidence and fluency in programming.</p> <p>Ability to adapt existing knowledge to unfamiliar programs or hardware.</p> <p>Resilience in debugging programming problems.</p> <p>Articulate, confident and proficient users of technology.</p>	<p><b>PROGRAMMING</b></p> <ul style="list-style-type: none"> <li>To design, write and debug programs to solve a specific problem or goal</li> <li>To make programs that control or simulate physical systems (<i>programs that move a motor, turn on a light, etc.</i>)</li> <li>To solve problems by breaking them down into smaller parts</li> <li>To use: <ul style="list-style-type: none"> <li><b>Variables</b> (<i>an object that can change value, e.g. keeping track of the score in a game</i>)</li> <li><b>Sequence</b> (<i>recognising that the order of instructions in an algorithm matter</i>)</li> <li><b>Repetition</b> (<i>making a program continue to check for something, e.g. a game that repeatedly checks if a character has been shot or hit</i>)</li> </ul> </li> <li>To write programs that use various different forms of input and output (<i>input – heat sensors, light sensors, keyboard, mouse, text from the internet, etc. output – text, images, sounds, lights, etc.</i>)</li> <li>To use debugging skills to detect and correct errors in algorithms and programs</li> </ul> <p><b>DISCUSSION AND UNDERSTANDING</b></p> <ul style="list-style-type: none"> <li>To use logical reasoning to explain how some simple algorithms work</li> <li>To use debugging skills to detect and correct errors in algorithms and programs</li> </ul>	<p>Class teaching with:</p> <ul style="list-style-type: none"> <li><b>Scratch Jr (3)</b> – <i>more complex programming &amp; problem solving with algorithms on tablets</i></li> <li><b>Lightbot (4)</b> – <i>programming &amp; problem solving using algorithms on tablets</i></li> <li><b>Scratch (3,4,5,6)</b> – <i>complex but visual programming using school laptops</i></li> <li><b>HTML Programming (5)</b> – <i>programming using text for instructions rather than separate units that link together (unlike Scratch). Creates websites.</i></li> <li><b>Python Programming (6)</b> – <i>programming using text for instructions. Can integrate with technology to control it / take input from it</i></li> </ul> <p>Class teaching with:</p> <ul style="list-style-type: none"> <li><b>Scratch Jr (3)</b> – <i>more complex programming &amp; problem solving with algorithms on tablets</i></li> <li><b>Lightbot (4)</b> – <i>programming &amp; problem solving using algorithms on tablets</i></li> <li><b>Scratch (3,4,5,6)</b> – <i>complex but visual programming using school laptops</i></li> <li><b>HTML Programming (5)</b> – <i>programming using text for instructions rather than separate units that link together (unlike Scratch). Creates websites.</i></li> </ul>	<ul style="list-style-type: none"> <li>Screenshots of work on tablets</li> <li>Saved programs written on laptops</li> <li>HTML web pages hosted via school website</li> <li>Planning sheets from programming</li> </ul> <ul style="list-style-type: none"> <li>Discussions with chn during lessons (particularly programming lessons)</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Python Programming (6)</b> – <i>programming using text for instructions. Can integrate with technology to control it / take input from it</i></li> </ul>	
	<p><b>NETWORKING AND INTERNET</b></p> <ul style="list-style-type: none"> <li>• To understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration (<i>the internet is really, really great</i>)</li> <li>• To use search technologies effectively (<i>Google</i>), appreciate how results are selected and ranked, and be discerning in evaluating digital content (<i>not everything you read online is true</i>)</li> </ul>	<p>Class teaching with:</p> <ul style="list-style-type: none"> <li>• <b>Google Docs (3)</b> – <i>cloud based storage of word processing, spreadsheets and presentation software</i></li> <li>• <b>Research online (3,4,5,6)</b> – <i>using the internet across the curriculum to enhance work</i></li> <li>• <b>Blogging (5)</b> – <i>commenting, writing ideas and doing it all safely using the school website as a platform</i></li> <li>• <b>HTML Programming (5)</b> – <i>making simple websites (that are safe to be online) and hosting them through the school website</i></li> </ul>	<ul style="list-style-type: none"> <li>• Observations in lessons</li> <li>• Blog posts and websites stored online</li> </ul>
	<p><b>COMBINING SOFTWARE</b></p> <ul style="list-style-type: none"> <li>• To select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information</li> </ul>	<p>Class teaching with:</p> <ul style="list-style-type: none"> <li>• <b>Google Docs (3)</b> – <i>using to show data, e.g. spreadsheets, etc.</i></li> <li>• <b>Video Editing (4,5)</b> – <i>using camera, video editing apps / laptop software (Windows Movie Maker)</i></li> <li>• <b>Scratch (3,4,5,6)</b> – <i>importing images into programs</i></li> <li>• <b>Blogging (5)</b> – <i>importing images, audio and video from other sources into blog posts</i></li> <li>• <b>HTML Programming (5)</b> – <i>importing images, audio and video from other sources</i></li> <li>• <b>Year in Review (6)</b> – <i>combining all the skills have learned to create a year in review presentation</i></li> </ul>	<ul style="list-style-type: none"> <li>• Observations in lessons</li> <li>• Saved files on Dropbox / school network</li> <li>• Planning sheets from programming</li> </ul>
	<p><b>E-SAFETY</b></p> <ul style="list-style-type: none"> <li>• To use technology safely, respectfully and responsibly</li> <li>• To recognise acceptable/unacceptable behaviour</li> <li>• To identify a range of ways to report concerns about content and contact</li> </ul>	<p>Class teaching with:</p> <ul style="list-style-type: none"> <li>• <b>E-safety teaching &amp; workshops (3,4,5,6)</b> – <i>e-safety lessons should be tailored to the year group and their online activities</i></li> <li>• <b>Use websites such as:</b> <ul style="list-style-type: none"> <li>○ Think U Know - <a href="https://www.thinkuknow.co.uk/">https://www.thinkuknow.co.uk/</a></li> <li>○ Somerset Scheme -</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Observations in lessons</li> <li>• Written work – answering key questions (<b>How do we stay safe? When might we need to be particularly careful? Etc.</b>)</li> </ul>

		<a href="https://slp.somerset.org.uk/sites/edtech/SitePages/Primary%20Computing/Primary%20Computing.aspx">https://slp.somerset.org.uk/sites/edtech/SitePages/Primary%20Computing/Primary%20Computing.aspx</a>	
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	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<b>R</b>	Using Everyday ICT (Light switches, computer, being safe)	Using a Computer (Medway Term 5)	BeeBot (Practical)		Using images Taking photos, viewing photos (Medway Term 3)	Art Drawing apps, etc.
<b>1</b>	BeeBots	Taking Photos			eSafety	Lightbot Jr
<b>2</b>	Lightbot Jr		Comic Strip It		eSafety	Scratch Jr
<b>3</b>	Scratch Jr	eSafety	Intro to Scratch		How does a computer work?	Google Docs (cloud)
<b>4</b>	Lightbot	eSafety	Scratch Continued			Video Editing
<b>5</b>	Blogging	Video Editing	Advanced Scratch		eSafety	HTML Programming
<b>6</b>	Scratch	eSafety	Python		Year in Review	