



## Y4 computing overview 2021-22: *The Internet, Audio Editing, Repetition in Shapes*

Computing Activity	Building Skills and Disciplinary Knowledge	Approaches to Developing Skills and Disciplinary Knowledge	Building Substantive Knowledge and Understanding	Approaches to Developing Substantive Knowledge and Understanding	Curricula Materials	Assessed through (T1 T2 T3)		
						Safe online presence Communicating	Problem-solving Creating	Evaluating
Algorithms and Programs	<ul style="list-style-type: none"> <li>Use sequence in programs</li> <li>Use selection in programs</li> <li>Work with various forms of input and output</li> <li>Use repetition in programs</li> <li>Work with variables</li> <li>Use logical reasoning to explain how some simple algorithms work</li> <li>Use sequence, selection, and repetition in programs</li> </ul>	<ul style="list-style-type: none"> <li>Class/group tuition with technical guidance from the Switched On computing program</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to use the internet and programs safely</li> <li>Understand and explore databases and their uses for modern society</li> </ul>	<ul style="list-style-type: none"> <li>Class teacher showing children existing examples</li> <li>Group work on creating and developing their own work</li> </ul>	<b>TERM1:</b> <a href="#">The Internet</a> <ul style="list-style-type: none"> <li>Investigate the security of networks and the importance of this security</li> <li>Investigate the term World Wide Web and the difference between web page and website</li> <li>Create content for a website offline, then add content to an existing website</li> <li>Investigate what can and can't be done with content on websites, relating them to principles of ownership and sharing in the real world.</li> <li>Become familiar with the idea of fake news and how false information can be easily and quickly spread through the Internet</li> </ul>	Most children will be able to... (working at)	Some children will not yet be able to...(working towards)	Some children are confidently able to... (exceeding)
Databases	<ul style="list-style-type: none"> <li>Create and edit content on digital applications</li> <li>Use internet services to create content that presents information</li> <li>Use internet services to create and evaluate content that presents information</li> <li>Design and create content</li> </ul>	<ul style="list-style-type: none"> <li>Class/group tuition with reference to existing databases</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to communicate effectively and safely with technology</li> </ul>	<ul style="list-style-type: none"> <li>Class teacher talk through programs and algorithms with opportunities to try different programs</li> <li>Observing algorithms and debugging them</li> </ul>				
Using the internet	<ul style="list-style-type: none"> <li>Use search technologies effectively</li> <li>Be discerning in evaluating digital content</li> <li>Be discerning in evaluating digital content</li> </ul>	<ul style="list-style-type: none"> <li>Class/group internet browsing, followed by reflective discussion</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to use different programs to create digital audio.</li> </ul>		<ul style="list-style-type: none"> <li>Teacher led creating and editing</li> <li>Observing pre-existing master pieces and masters in the field</li> </ul>	<b>TERM3:</b> <a href="#">Repetition in Shapes</a> <ul style="list-style-type: none"> <li>Learn the basic Logo commands to read and write code</li> <li>Create a program in text based language</li> <li>Use everyday life examples about how to manage and 'chunk' daily tasks to relate to coding, then use these strategies to decompose and produce a program</li> <li>Use Turtle Academy Online to design a program that includes count-controlled loops, use the design to write a program and develop my program by debugging it</li> </ul>		
Problem solving	<ul style="list-style-type: none"> <li>Solve problems by decomposing them into smaller parts</li> <li>Design programs that accomplish specific goals</li> <li>Write programs that accomplish specific goals</li> <li>Debug programs that accomplish specific goals</li> <li>Use logical reasoning to detect and correct errors in algorithms and programs</li> </ul>	<ul style="list-style-type: none"> <li>Class, then group opportunities for problem solving</li> </ul>	<ul style="list-style-type: none"> <li>Understand ownership and copyright implications</li> <li>Understand how to approach a problem and find a solution</li> </ul>					
Communicating	<ul style="list-style-type: none"> <li>Understand the opportunities networks offer for communication and collaboration</li> <li>Use a variety of software (including internet services) to present information</li> </ul>	<ul style="list-style-type: none"> <li>Observational opportunities to work as part of a group</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to create programs through planning, modifying and testing commands</li> </ul>					
SMSC	<ul style="list-style-type: none"> <li>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour</li> <li>To know how to seek help – where to go, and how to set privacy settings</li> <li>Recognise acceptable/unacceptable behaviour</li> <li>Knowing how to find out about website or game policies</li> </ul>	<ul style="list-style-type: none"> <li>Teacher guidance on safe internet use and introduction to supportive websites (NSPCC)</li> </ul>						