

# Overview of units

Unit	Expectations	Computing PoS	Software/Apps	Hardware
<p><b>3.1</b> <b>We are programmers</b> Programming an animation</p>	<ul style="list-style-type: none"> <li>• Create an algorithm for an animated scene in the form of a storyboard.</li> <li>• Write a program in Scratch to create the animation.</li> <li>• Correct mistakes in their animation programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts.</li> <li>• Use sequence ... in programs; work with variables and various forms of input and output.</li> <li>• Use logical reasoning to detect and correct errors in algorithms and programs.</li> <li>• Select, use and combine a variety of software ... to design and create ... content that accomplish(es) given goals, including ... presenting ... information.</li> </ul>	<p><b>Software:</b> Scratch (recommended), Snap!, Microsoft PowerPoint®, Tux Paint, Scratch Jnr <b>Apps:</b> Pyonkee</p>	<p>Laptop or desktop computers (recommended) or tablets, cameras (optional), microphones (optional)</p>
<p><b>3.2</b> <b>We are bug fixers</b> Finding and correcting bugs in programs</p>	<ul style="list-style-type: none"> <li>• Develop a number of strategies for finding errors in programs.</li> <li>• Build up resilience and strategies for problem solving.</li> <li>• Increase their knowledge and understanding of Scratch.</li> <li>• Recognise a number of common types of bug in software.</li> </ul>	<ul style="list-style-type: none"> <li>• Debug programs that accomplish specific goals.</li> <li>• Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</li> <li>• Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</li> </ul>	<p><b>Software:</b> Scratch, Snap!, Screencast-o-matic (if appropriate) <b>Apps:</b> Snap! in the web browser (Scratch requires Adobe Flash® Player, which is not available on iPad), Pyonkee</p>	<p>Laptop/desktop computers, microphone (if appropriate)</p>
<p><b>3.3</b> <b>We are presenters</b> Videoing performance</p>	<ul style="list-style-type: none"> <li>• Gain skills in shooting live video, such as framing shots, holding the camera steady, and reviewing.</li> <li>• Edit video, including adding narration and editing clips by setting in/out points.</li> <li>• Understand the qualities of effective video, such as the importance of narrative, consistency, perspective and scene length.</li> </ul>	<ul style="list-style-type: none"> <li>• 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> <li>• Work with various forms of input and output.</li> <li>• Use technology safely, respectfully and responsibly.</li> </ul>	<p><b>Software:</b> Microsoft Windows Movie Maker® or iMovie, Kinovea/Dartfish <b>Apps:</b> iMovie/Coach's Eye</p>	<p>Digital cameras, flip cameras (or similar), tablet computers/iPod Touch or similar</p>

<p><b>3.4</b> <b>We are vloggers</b> Making and sharing a short screencast presentation</p>	<ul style="list-style-type: none"> <li>• Use a search engine to learn about a new topic.</li> <li>• Plan, design and deliver an interesting and engaging presentation.</li> <li>• Search for and evaluate online images.</li> <li>• Create their own original images.</li> <li>• Create a video slidecast of a narrated presentation.</li> <li>• Develop understanding of how the internet, the web and search engines work.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web.</li> <li>• Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</li> <li>• Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting information.</li> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>	<p><b>Software:</b> Google, creative commons search engines, PowerPoint / Google Presentation, screencast-o-matic / QuickTime Player <b>Apps:</b> Safari, Explain Everything, Adobe Voice</p>	<p>Laptops/desktop PCs with microphones/tablet computers</p>
<p><b>3.5</b> <b>We are communicators</b> Communicating safely on the internet</p>	<ul style="list-style-type: none"> <li>• Develop a basic understanding of how email works.</li> <li>• Gain skills in using email.</li> <li>• Be aware of broader issues surrounding email, including 'netiquette' and online safety.</li> <li>• Work collaboratively with a remote partner.</li> <li>• Experience video conferencing.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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> <li>• Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</li> </ul>	<p><b>Software:</b> Email system (your school's own system, Gmail or another system), video conferencing software (Skype, Google Hangouts or Janet video conferencing), presentation software <b>Apps:</b> Skype, FaceTime, Hangouts</p>	<p>Webcam and speakers</p>
<p><b>3.6</b> <b>We are opinion pollsters</b> Collecting and analysing data</p>	<ul style="list-style-type: none"> <li>• Understand some elements of survey design.</li> <li>• Understand some ethical and legal aspects of online data collection.</li> <li>• Use the web to facilitate data collection.</li> <li>• Gain skills in using charts to analyse data.</li> <li>• Gain skills in interpreting results.</li> </ul>	<ul style="list-style-type: none"> <li>• 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> <li>• 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.</li> </ul>	<p><b>Software:</b> Web browser, Google Forms, Google Sheets and Google Slides/InspireData®/Microsoft Excel® and Microsoft Word®/Freemind <b>Apps:</b> Google Drive/web browser</p>	<p>Laptop or desktop computer with internet connection</p>