

## Overview of units

Unit	Expectations	Computing PoS	Software/Apps	Hardware
<b>2.1</b> <b>We are astronauts</b> Programming on screen	<ul style="list-style-type: none"> <li>• Have a clear understanding of algorithms as sequences of instructions.</li> <li>• Convert simple algorithms to programs.</li> <li>• Predict what a simple program will do.</li> <li>• Spot and fix (debug) errors in their programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</li> <li>• Create and debug simple programs.</li> <li>• Use logical reasoning to predict the behaviour of simple programs.</li> </ul>	<b>Software:</b> Scratch, Kodu, Scratch Jr <b>Apps:</b> Hopscotch, Daisy the Dinosaur	Programmable toy, such as a Bee-Bot or Roamer Too
<b>2.2</b> <b>We are games testers</b> Exploring how computer games work	<ul style="list-style-type: none"> <li>• Describe carefully what happens in computer games.</li> <li>• Use logical reasoning to make predictions of what a program will do.</li> <li>• Test these predictions.</li> <li>• Think critically about computer games and their use.</li> <li>• Be aware of how to use games safely and in balance with other activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</li> <li>• Use logical reasoning to predict the behaviour of simple programs.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• Use technology safely and respectfully, keeping personal information private.</li> </ul>	<b>Software:</b> Scratch, Screencast-o-matic, web-based or open source games, pupils' games <b>Apps:</b> Snap! in the browser; free game apps	Desktop/laptop computers, IWB, internet connection; optionally, MP3 recorders, pupils' own game consoles
<b>2.3</b> <b>We are photographers</b> Taking better photos	<ul style="list-style-type: none"> <li>• Consider the technical and artistic merits of photographs.</li> <li>• Use a digital camera or camera app.</li> <li>• Take digital photographs.</li> <li>• Review and reject or rate the images they take.</li> <li>• Edit and enhance their photographs.</li> <li>• Select their best images to include in a shared portfolio.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>	<b>Software:</b> Picasa, Pixlr <b>Apps:</b> iPhoto, Snapseed	Desktop or laptop computers and digital cameras/tablets/smartphones

<p><b>2.4</b> <b>We are researchers</b> Researching a topic</p>	<ul style="list-style-type: none"> <li>• Develop collaboration skills through working as part of a group.</li> <li>• Develop research skills through searching for information on the internet.</li> <li>• Improve note-taking skills through the use of mind mapping.</li> <li>• Develop presentation skills through creating and delivering a short multimedia presentation.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>	<p><b>Software:</b> FreeMind, Bitly, Google Custom Search, web browser, Microsoft PowerPoint®</p> <p><b>Apps:</b> iThoughtsHD, Safari, Keynote</p>	<p>Laptop or desktop computers or tablets, internet connection</p>
<p><b>2.5</b> <b>We are detectives</b> Collecting clues</p>	<ul style="list-style-type: none"> <li>• Understand that email can be used to communicate.</li> <li>• Develop skills in opening, composing and sending emails.</li> <li>• Gain skills in opening and listening to audio files on the computer.</li> <li>• Use appropriate language in emails.</li> <li>• Develop skills in editing and formatting text in emails.</li> <li>• Be aware of e-safety issues when using email.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>	<p><b>Software:</b> Your school's email system, Microsoft Excel®</p> <p><b>Apps:</b> Mail, Numbers</p>	<p>Desktop or laptop computers or tablets; network access</p>
<p><b>2.6</b> <b>We are zoologists</b> Collecting data about bugs</p>	<ul style="list-style-type: none"> <li>• Sort and classify a group of items by answering questions.</li> <li>• Collect data using tick charts or tally charts.</li> <li>• Use simple charting software to produce pictograms and other basic charts.</li> <li>• Take, edit and enhance photographs.</li> <li>• Record information on a digital map.</li> </ul>	<ul style="list-style-type: none"> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</li> </ul>	<p><b>Software:</b> Microsoft Excel®/ IWB software, Picasa/Photo Gallery, Google Maps Engine/Google Earth</p> <p><b>Apps:</b> Numbers, Snapseed, RunKeeper</p>	<p>Desktop or laptop computers with digital cameras/tablets, internet connection</p>