

Overview of units

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

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