

Overview of units

Unit	Learning outcomes	Computing programme of study	Software	Hardware
2.1 We are astronauts Programming on screen in ScratchJr	Pupils learn to: - plan a sequence of instructions to move sprites in ScratchJr - create, test and debug programs for sprites in ScratchJr - work with input and output in ScratchJr - use repetition in their programs - design costumes for sprites.	- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute them by following precise and unambiguous instructions. - Create and debug simple programs. - Use logical reasoning to predict the behaviour of simple programs.	<i>Main:</i> - ScratchJr <i>Alternatives:</i> - Scratch	<i>Main:</i> - iPads <i>Alternatives:</i> - Android tablets - Laptop/desktop/Chromebook computers - Bee-Bots - Blue-Bots
2.2 We are games testers Working out the rules for games	Pupils learn to: - observe and describe carefully what happens in computer games - use logical reasoning to make predictions of what a program will do and test these predictions - think critically about computer games and their use - create sequences of instructions for a virtual robot to solve a problem - work out strategies for playing a game well - be aware of how to use games safely and in balance with other activities.	- Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute them 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.	<i>Main:</i> - Scratch - FixTheFactory <i>Alternatives:</i> - Blockly Games	<i>Main:</i> - iPads - Laptop/desktop/Chromebook computers <i>Alternatives:</i> - Android tablets
2.3 We are photographers Taking, selecting and editing digital images	Pupils learn to: - consider the technical and artistic merits of photographs - use the iPad camera app - take digital photographs - review, reject or pick the images they take - edit and enhance their photographs	- 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.	<i>Main:</i> - Camera app - Photo app - Snapseed <i>Alternatives:</i> - Pixlr - Windows Photos	<i>Main:</i> - iPads <i>Alternatives:</i> - Android tablets - Laptop/desktop/Chromebook computers and digital cameras

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2.4 We are safe researchers Researching a topic	Pupils learn to: ● develop collaboration skills through working as part of a group ● develop research skills through searching for information on the Internet ● think through privacy implications of their use of search engines ● be more discerning in evaluating online information ● improve note-taking skills through the use of mind mapping ● develop presentation skills through creating and delivering a short multimedia presentation.	● 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.	Main: ● Popplet ● Google Slides ● Google custom search Alternatives: ● FreeMind ● Microsoft PowerPoint ● Keynote	Main: ● iPads Alternatives: ● Android tablets ● Laptop/desktop/Chromebook computers
2.5 We are animators Creating a stop-motion animation	Pupils learn to: ● understand how animation works ● use storyboards to plan an animation ● create their own original characters, props and backgrounds for an animation ● film, review and edit a stop-motion animation ● record audio to accompany their animation ● provide constructively critical feedback to their peers.	● 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.	Main: ● Stop Motion Studio Alternatives: ● iStopMotion ● Zu3D ● Stop Motion Animator	Main: ● iPads Alternatives: ● Android tablets ● Laptop/desktop/Chromebook computers and digital cameras
2.6 We are zoologists Collecting data about bugs	Pupils learn to: ● sort and classify a group of items by answering questions ● collect data using tick charts or tally charts ● take, edit and enhance photographs ● use Google Sheets or Microsoft Excel to produce basic charts ● record information on a digital map ● summarise what they have learned in a presentation.	● 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.	Main: ● Google Sheets ● Google Docs ● Google My Maps ● Google Slides ● Camera app ● Photos app Alternatives: ● Windows Maps ● Microsoft suite	Main: ● iPads Alternatives: ● Laptop/desktop/Chromebook computers and digital cameras