

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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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> <ul style="list-style-type: none"> ScratchJr <i>Alternatives:</i> <ul style="list-style-type: none"> Scratch 	<i>Main:</i> <ul style="list-style-type: none"> iPads <i>Alternatives:</i> <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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> <ul style="list-style-type: none"> Scratch FixTheFactory <i>Alternatives:</i> <ul style="list-style-type: none"> Blockly Games 	<i>Main:</i> <ul style="list-style-type: none"> iPads Laptop/desktop/Chromebook computers <i>Alternatives:</i> <ul style="list-style-type: none"> Android tablets
2.3 We are photographers Taking, selecting and editing digital images	Pupils learn to: <ul style="list-style-type: none"> 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 	<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. 	<i>Main:</i> <ul style="list-style-type: none"> Camera app Photo app Snapseed <i>Alternatives:</i> <ul style="list-style-type: none"> Pixlr Windows Photos 	<i>Main:</i> <ul style="list-style-type: none"> iPads <i>Alternatives:</i> <ul style="list-style-type: none"> 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: <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 ● 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. 	<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. 	<i>Main:</i> <ul style="list-style-type: none"> ● Popplet ● Google Slides ● Google custom search <i>Alternatives:</i> <ul style="list-style-type: none"> ● FreeMind ● Microsoft PowerPoint ● Keynote 	<i>Main:</i> <ul style="list-style-type: none"> ● iPads <i>Alternatives:</i> <ul style="list-style-type: none"> ● Android tablets ● Laptop/desktop/ Chrome book computers
2.5 We are animators Creating a stop-motion animation	Pupils learn to: <ul style="list-style-type: none"> ● 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. 	<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. 	<i>Main:</i> <ul style="list-style-type: none"> ● Stop Motion Studio <i>Alternatives:</i> <ul style="list-style-type: none"> ● IStopMotion ● Zu3D ● Stop Motion Animator 	<i>Main:</i> <ul style="list-style-type: none"> ● iPads <i>Alternatives:</i> <ul style="list-style-type: none"> ● Android tablets ● Laptop/desktop/ Chromebook computers and digital cameras
2.6 We are zoologists Collecting data about bugs	Pupils learn to: <ul style="list-style-type: none"> ● 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. 	<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. 	<i>Main:</i> <ul style="list-style-type: none"> ● Google Sheets ● Google Docs ● Google My Maps ● Google Slides ● Camera app ● Photos app <i>Alternatives:</i> <ul style="list-style-type: none"> ● Windows Maps ● Microsoft suite 	<i>Main:</i> <ul style="list-style-type: none"> ● iPads <i>Alternatives:</i> <ul style="list-style-type: none"> ● Laptop/desktop/ Chromebook computers and digital cameras