

2023-24	National Curriculum Key stage 1 Pupils should be taught to: <i>-understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</i> <i>-create and debug simple programs</i> <i>-use logical reasoning to predict the behaviour of simple programs</i> <i>-use technology purposefully to create, organise, store, manipulate and retrieve digital content</i> <i>-recognise common uses of information technology beyond school</i> <i>-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>			
By the end of Year 1 children should know:				
Information technology				
Video Creation: • I know how to select images and record a voiceover. • I know how to highlight and zoom into images as I record. • I can create videos using a range of media - green screen, animations, film and image.		Data Handling: • I know how to sort images or text into two or more categories on a digital device. • I know how to collect data on a topic. • I know how to create a tally chart and pictogram. • I know how to record myself explaining what I have done and what it shows me.		AR+VR: • I know how to bring objects into my surroundings using Augmented Reality. • I can choose and create different types of animations to best explain my learning. (Animation)
Computer Science			Digital Literacy	Word processing / typing / key skills
Computational thinking: • I can critically evaluate my work and suggest improvements			National Online Safety	• I know how to play on a touch screen game and use computers / keyboards / mouse in role play • I know how to type letters with increasing confidence using a keyboard and tablet. • I know how to dictate short, clear sentences into a digital device
Key Vocabulary				
Video Creation: Search, select, rearrange, title, text, record, pause, undo, zoom, pan, highlight. Data Handling: Sort, background, data, emoji, image, edit, shape, table, resize, drag, save. Presentation: Animate, resize, voice labels, import, tag, add to, right click, layout, format,			Ar+VR: Animation, character, record, surroundings, objects, interact, photography, video, record, camera roll, play, pause, microphone Key skills: Space Bar, Delete, Return Key, Enter, Mouse, arrow keys, cursor, select, save	
Video Creation		Data Handling		Presentation
ShadowPuppets Edu - video		Pictograms - Picollage		Animal Catchphrase Quiz - Keynote
				AR & VR
				Storytelling with AR - ARMaker

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By the end of Year 2 children should know:				
Information technology				
Video Creation: • I know how to select images and record a voiceover. • I know how to highlight and zoom into images as I record. • I can create videos using a range of media - green screen, animations, film and image.	Data Handling: • I know how to sort images or text into two or more categories on a digital device. • I know how to collect data on a topic. • I know how to create a tally chart and pictogram. • I know how to record myself explaining what I have done and what it shows me.	Presentation: • I know how to add voice labels to an image. • I know how to import images to a project from the web and camera roll • I know how to use some build in animations in presentation software	AR+VR: • I know how to bring objects into my surroundings using Augmented Reality. • I can choose and create different types of animations to best explain my learning. (Animation)	
Computer Science			Digital Literacy	Word processing / typing / key skills
Computational thinking: • I can critically evaluate my work and suggest improvements			National Online Safety	• I know how to use the space bar only once between words and use touch to navigate to words letter to edit • I know how to copy and paste images and text • I know how to use caps lock • I know how to add images alongside text in a word processed document. • I know how to dictate longer passages into a digital device with accurate punctuation.
Key Vocabulary				
Video Creation: Search, select, rearrange, title, text, record, pause, undo, zoom, pan, highlight. Data Handling: Sort, background, data, emoji, image, edit, shape, table, resize, drag, save. Presentation: Animate, resize, voice labels, import, tag, add to, right click, layout, format,		Ar+VR: Animation, character, record, surroundings, objects, interact, photography, video, record, camera roll, play, pause, microphone Key skills: Cut, copy, paste. Caps Lock, Insert, Image, Save, clipboard, editing, header, highlight		
Video Creation	Data Handling	Presentation	AR & VR	
ShadowPuppets Edu - video	Pictograms - Picollage	Animal Catchphrase Quiz - Keynote	Storytelling with AR - ARMakr	

2023-24	National Curriculum Key Stage 2 pupils should be taught to: -design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts -use sequence, selection, and repetition in programs; work with variables and various forms of input and output -use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs -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 -use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content -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 -use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact			
By the end of Year 3 children should know:				
Information technology				
Sound: • Edit sound effects for a purpose. • I can record a radio broadcast or audiobook.		Video creation: • I know how to sequence clips of mixed media in a timeline and record a voiceover • I can write and record a script using a teleprompter tool.		AR+VR: • I know how to create my own digital 360 image and explore it in VR
				Presentation: (AR+VR) • I know how to create a presentation demonstrating my understanding with a range of media.
Computer Science			Digital Literacy	Word processing / typing / key skills
Computational thinking: • I know how to use abstraction to focus on what's important in my design • I know how to write more precise algorithms for use when programming	Programming: • I know how to use repetition in programs • I know how to use simple selection in programs • I know how to work with a variety of inputs and outputs • I know how to use logical reasoning to systematically detect and correct errors in programs		National Online Safety	• I know how to edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • I know how to use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l • I know how to use cut, copy and paste to quickly duplicate and organise text.
Key Vocabulary				
Sound: media, interactive, audio, edit, rhythm, Input, output, selection, mix Video creation: Project, media, image, video, timeline, split, record, replay, soundtrack, volume, filter. Key skills: Touch type. Edit, format, font, size, borders, shadows, duplicate, organise, undo, redo, autocorrect, clip		Programming: logical reasoning, design, algorithmic thinking, selection, repeat, Repetition, loop, forever loop, count controlled loop, selection, condition, systematic AR+VR: project, slide size, panoramic, shapes, instant alpha, media, clip art, layout, 360, virtual reality		
Video Creation		Sound		Programming
Voiceover- iMovie		Podcasting - Pages and Keynote		AR & VR
		Makey Makey Games Controller		360° image - Figment AR

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By the end of Year 4 children should know:			
Information technology			
Sound: • Edit sound effects for a purpose. • I can record a radio broadcast or audiobook.	Video creation: • I know how to sequence clips of mixed media in a timeline and record a voiceover • I can write and record a script using a teleprompter tool.	AR+VR: • I know how to create my own digital 360 image and explore it in VR	Presentation: (AR+VR) • I know how to create a presentation demonstrating my understanding with a range of media.
Computer Science		Digital Literacy	Word processing / typing / key skills
Computational thinking: • I know how to use abstraction to focus on what's important in my design • I know how to write more precise algorithms for use when programming	Programming: • I know how to use repetition in programs • I know how to use simple selection in programs • I know how to work with a variety of inputs and outputs • I know how to use logical reasoning to systematically detect and correct errors in programs	National Online Safety	• I know how to combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. • I know how to confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text • I know how to use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology
Key Vocabulary			
Sound: media, interactive, audio, edit, rhythm, Input, output, selection, mix Video creation: Project, media, image, video, timeline, split, record, replay, soundtrack, volume, filter. Key skills: Touch type. Edit, format, font, size, borders, shadows, duplicate, organise, undo, redo, autocorrect, clip		Programming: logical reasoning, design, algorithmic thinking, selection, repeat, Repetition, loop, forever loop, count controlled loop, selection, condition, systematic AR+VR: project, slide size, panoramic, shapes, instant alpha, media, clip art, layout, 360, virtual reality	
Video Creation	Sound	Programming	AR & VR
Voiceover- iMovie	Podcasting - Pages and Keynote	Makey Makey Games Controller	360° image - Figment AR

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By the end of Year 5 children should know:				
Information technology				
Data Handling: Year 5 • I can use simple formulae to solve calculations including =sum • I can edit and format difference cells in a spreadsheet. Year 6 • I can write spreadsheet formula to solve more challenging maths problems.		Video creation: • I know how to use cutaway and split screen tools in iMovie. • I know how to evaluate and improve the best video tools to best explain my understanding. • I know how to further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.		AR+VR: • I know how to create an interactive poster using AR • know how to enhance digital photos and images using crop, brightness and resize tools (photography and digital art)
Computer Science			Digital Literacy	Word processing / typing / key skills
Computational thinking: • I know how to solve problems by decomposing them into smaller parts • I know how to use selection in algorithms • I know how to use logical reasoning to explain how a variety of algorithms work • I know how to evaluate the effectiveness of algorithms		Programming:	National Online Safety	• I know how to apply other useful effects to my documents such as hyperlinks. • I know how to import sounds to accompany and enhance the text in my document. • I know how to organise and reorganise text on screen to suit a purpose
Key Vocabulary				
Data handling: spreadsheet, cell, row, column, formula, sum, data, value, calculation Video creation: cutaway, split screen, chroma key, crop, resize, teleprompter, masking, timeline, import, trim.			AI: data, train, model, image, class, pattern AR+VR: crop, brightness, resize, target image, overlay, upload, import, export, augmented. scan Key skills: Import, export, hyperlinks, animate, build in, build out, italics, bold, arrange, bullets,	
Video Creation		Data Handling		AI
News Report - DoInk and iMovie		Google Sheets		My AI invention - Teachable Machine Website
				AR & VR
				Interactive poster - Eyejack

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By the end of Year 6 children should know:				
Information technology				
Data Handling: Year 5 ● I can use simple formulae to solve calculations including =sum ● I can edit and format difference cells in a spreadsheet. Year 6 ● I can write spreadsheet formula to solve more challenging maths problems.		Video creation: ● I know how to use cutaway and split screen tools in iMovie. ● I know how to evaluate and improve the best video tools to best explain my understanding. ● I know how to further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.		AR+VR: ● I know how to create an interactive poster using AR ● know how to enhance digital photos and images using crop, brightness and resize tools (photography and digital art)
Computer Science			Digital Literacy	Word processing / typing / key skills
Computational thinking: ● I know how to solve problems by decomposing them into smaller parts ● I know how to use selection in algorithms ● I know how to use logical reasoning to explain how a variety of algorithms work ● I know how to evaluate the effectiveness of algorithms		Programming:	National Online Safety	● I know how to confidently choose the best application to demonstrate my learning. ● I know how to format text to suit a purpose. ● I know how to publish my documents online regularly and discuss the audience and purpose of my content.
Key Vocabulary				
Data handling: spreadsheet, cell, row, column, formula, sum, data, value, calculation Video creation: cutaway, split screen, chroma key, crop, resize, teleprompter, masking, timeline, import, trim.		AI: data, train, model, image, class, pattern AR+VR: crop, brightness, resize, target image, overlay, upload, import, export, augmented. scan Key skills: Alignment, application, tabs, toolbar, build order, layout, shift key, PDF, columns, graphics,		
Video Creation		Data Handling		AI
News Report - DoInk and iMovie		Google Sheets		My AI invention - Teachable Machine Website
				AR & VR
				Interactive poster - Eyejack