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Computing Skills Progression (2023-2024)

EYFS	Personal, Social and Emotional Development	Physical Development	Expressive Arts and Design	Understanding the world
Nursery	Remember rules without needing an adult to remind them.	Match their developing physical skills to tasks and activities in the setting.	Explore creatively to express their ideas and feelings.	Explore how things work.
Reception	Show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing. Sensible amounts of 'screen time'.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently.	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. Explore, use and refine a variety of artistic effects to express their ideas and feelings.	Explore the use of technology and how it can help us. What place does technology have in our world?
ELG	**Managing self –** be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.		**Creating with materials -** safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	
KS1 & KS2	**E-Safety**	**Digital Literacy**	**Information Technology**	**Computer Science**

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Year 1 (Skills)	**Autumn 1** - Children should understand how to keep information private and safely image search.	**Autumn 2** (Technology around us) - Children should understand the technology we use every day – both at home and in school. Children should recognise the significance of technology and how it helps us. **Spring 2** (Painting) - Children should be able to carefully select brush size and style, change colours, draw shapes and fill. They should also understand why and how we remove mistakes and add text.	**Spring 1** (Word Processing) - Children should be able to type words and symbols, save, edit, undo and redo, select and format text.	**Summer 1** (Programming toys) - Children should be able to create and follow a set of step-by-step picture instructions. Direct and programme a toy using language such as; algorithm. **Summer 2** (Coding using Scratch Jr) - Children should know how to use Scratch Jr. to create, move and size characters and sequence instructions using a repeat command.
Year 1 (NC)	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.	Recognise common uses of information technology beyond school. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	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.
Year 2 (Skills)	**Autumn 1** - Children should understand the impact of their digital footprint and being kind online.	**Spring 1** (Using the internet) – Children should be able to search the internet using one word and make sense of the returned results, they should be able to use a range of search engines and	**Autumn 2** (Presentation skills) – Children should be able to insert slides, add and type in relevant text. Children should be able to save their work in the relevant folder.	**Summer 1 & 2** (Programming – preparing for scratch) – Children should be able to move and snap blocks together to combine commands. Children should be able

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		follow links to webpages.	**Spring 2** (Computer Art) - Children should be able to select an appropriate program for achieving a specific task. User different tools to adjust colour or size. Children should be able to recreate and manipulate pieces of art using a computer.	to create simple algorithms using a number of different blocks. Children should be able to write an algorithm for a shape.
Year 2 (NC)	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.	Recognise common uses of information technology beyond school.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Use logical reasoning to predict the behaviour of simple programs. Create and debug simple programs. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Year 3 (Skills)	**Autumn 1** - Children should be aware of online communications (including emails) and cyberbullying.	**Spring 2** (Online Searchers and surfers) – Children can identify what the Internet is and how it works, use a search engine to find information and implement strategies to improve results when searching online, including using keywords. Children should know how to	**Autumn 2** (Desktop publishing) – Children should be able to draw objects, insert text boxes and images, order and group objects and move and resize effectively. Should begin to manipulate objects and create an appropriate layout.	**Spring 1** (Programming – turtle logo/scratch) – Children should be able to create and debug algorithms to draw regular polygons and use the repeat command. Children should be able to draw shapes with spaces between using the penup

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		cross-reference using tabs and can identify reliable links through looking for a secured padlock in the URL address bar. Children can use a search engine to copy and paste images across to a blank document.	**Summer 1** (Word processing) – Children should use undo, and redo, make text bold, italic or underline, select text in different ways, change case and align text. They should be able to format font, insert images and use <ctrl> keyboard shortcuts.	and pendown tool. Children should be able to alter the pen settings. **Summer 2** (Learning loops on scratch) – children are beginning to use logical reasoning to explain algorithms and detect errors. Children can use sequence, selection and repetition in their programmes. Children can begin to use variables to accomplish specific goals.
Year 3 (NC)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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. 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.	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. 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 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.
Year 4 (Skills)	**Autumn 1** - Children should understand how to prevent and deal with	**Soring 2** (Animation) – Children should be able to describe one or more traditional methods of animation. Make	**Autumn 2** (Presentation skills) – **Summer 1** (Word processing) -	**Spring 1** (Coding – Turtle Logo) – children should be able to write procedures using simple alorithms,

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	cyberbullying and how to be a good digital citizen.	slight changes to an image using onion skinning (and understanding this term). Use a time slider to find a specific point in a film clip to insert or edit. Edit and refine images in a stop motion clip. Children should begin to differentiate between animation software – looking at similarities and differences.	Children should be able to: select, edit and manipulate text in different ways; insert an image into a document; format an image; use formatting tools to improve the layout; use the spellcheck tool; insert a simple table; change the size of the page.	draw shapes and fill them using different colours. Children shoud be able to draw arcs of different sizes as required. Children should begin to include procedures with variables. **Summer 2** (Coding – Scratch quizzes) – Children should be able to understand and explain what conditional statements are, using if…then and if…then…else blocks in code. Children can select appropriate blocks for a desired outcome, including using repeat loops, Sensing blocks and Operator blocks to create a multiplication quiz. Children can add effects to improve a multiplication quiz and enhance the experience for the player. Children can create variables and implement these variables in code.
Year 4 (NC)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical	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,	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Use logical reasoning to explain

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	concerns about content and contact.	systems; solve problems by decomposing them into smaller parts.	including collecting, analysing, evaluating and presenting data and information. 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.	how some simple algorithms work and to detect and correct errors in algorithms and programs. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
Year 5 (Skills)	**Autumn 1** - Children should understand spam emails, plagiarism and secure passwords and images.	**Autumn 2** (Internet research and web design) – Children should be able to refine their searches using Boolean operators with some guidance. Children can use strategies to check the reliability of information on web pages. Children can explain how search engines work using key vocabulary, such as web indexing and web crawlers. Children can understand that search results are ranked and can explain how page ranking works. Children can explain what search engine optimisation (SEO) is and can suggest some SEO improvements for a web page.	**Summer 1** (Creating a song using garage band) – Children should create an audio recording including loops, understand different audio effect and apply different manipulations to a recording. Children should demonstrate an understanding of the process of systems by splitting them up into smaller steps.	**Spring 1** (Hour or code/Code.org) – Children should be able to learn programming concepts such as conditionals, debugging and loops. **Spring 2** (Coding using hopscotch) – Children should understand the algorithm for coding blocks using both static and dynamic outputs. With this the children design and create their own game. **Summer 2** (Animation using keynote) – Children create an animated scene.

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Year 5 (NC)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 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 logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
Year 6 (Skills)	**Autumn 1** - Children should understand online friendships, social media guidelines, website	**Summer 1 & 2** (Film making) – children should be able to plan and write a script, searching for relevant information using appropriate websites.	**Autumn 2** (Word processing) – Children should understand the difference between Microsoft programmes and make decisions on	**Spring 2** (Coding – Scratch) – Children should be able to select appropriate sprites to fit within a scene and select costume changes

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	security and online stereotyping.	Children should be able to use a camera to record, import and arrange video files to form a complete film. Children should be able to evaluate whether information is reliable or not, plan additional elements for film-making such as location and props and ensure an appropriate frame is used when interviewing.	the most suitable programme for a task. The children should explore the features of the tool and make reference to the similarities and differences. Children should be confident with importing information and arranging using the tools, saving documents in the relevant folder and accessing these with ease. **Spring 1** (Spreadsheets) – Children should be able to enter formulae into cells, edit and discuss the effect on results. Children should explore further functions including AVERAGE, MIN and MAX, create graphs and design their own spreadsheet for a specific purpose.	for motion effect. Children can. Use the broadcast message and receive block to structure and control the timing of events. Children can order a series of backdrops to create a story narrative and record sound to enhance the story.
Year 6 (NC)	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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.	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. Select, use and combine a variety of software (including internet services) on a range of digital	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.

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			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.	