



Computing Progression of Learning



	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NC Objectives							
Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	I can give commands/instructions e.g. forward, backwards, go, stop, when using simple software/hardware	I know what algorithms are and how they are used. I understand how algorithms impact programming. I can control something using simple instructions.	I understand that programmes are a sequence of simple instructions. I can create and test a simple programme to control physical hardware and digital devices.	I can plan simple sequences with algorithms. I can use logical reasoning to predict errors. I can create and implement programmes to accomplish given goals.	I can design a simple programme with a specific focus using algorithms to write the sequence. I can use sequence selection and repetition in programmes. I can detect and correct errors in algorithms and programmes.	I can design and write programmes that control simulations and physical systems. I can create and implement a range of programmes and work with variables and various forms of input and output to test programmes.	I understand several key algorithms that reflect computational thinking for sorting and searching. I can apply programming skills in a real world context.

Co2/I.2 create and debug simple programs Co2/I.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts	I can make choices about the buttons/icons to press, touch or click on when using simple software/hardware.	I know what algorithms are and how they are used. I understand how algorithms impact programming. I can control something using simple instructions.	I understand that programmes are a sequence of simple instructions. I can create and test a simple programme to control physical hardware and digital devices.	I can plan simple sequences with algorithms. I can use logical reasoning to predict errors. I can create and implement programmes to accomplish given goals.	I can design a simple programme with a specific focus using algorithms to write the sequence. I can use sequence selection and repetition in programmes. I can detect and correct errors in algorithms and programmes.	I can design and write programmes that control simulations and physical systems. I can create and implement a range of programmes and work with variables and various forms of input and output to test programmes.	I understand several key algorithms that reflect computational thinking for sorting and searching. I can apply programming skills in a real world context.
Co2/I.3 use logical reasoning to predict the behaviour of simple programs		I understand how algorithms impact	I can create and test a simple programme to control	I can use logical reasoning to predict errors.	I can detect and correct errors in algorithms and programmes.	I can create and implement a range of programmes and work	I understand several key algorithms that reflect computational thinking for

		programmin g.	physical hardware and digital devices			with variables and various forms of input and output to test programmes.	sorting and searching.
σ2/l.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content		I can use different font sizes, colours and effects. I can select appropriate images to add to work.	I can use different font sizes, colours and images to communicat e meaning for a given audience. I can use presentation software (e.g. Keynote, Google Slides, Powerpoint).	I can use technology to present data and digital content.	I know how to use digital tools responsibly to communicate. I can use technology to collect and present data and digital content	I can use digital devices to combine software and present data and information. I can use technology to collect, analyse, evaluate and present data and digital content	I can use a range of digital devices to combine different software and present data and information. I can use a range of programmes, systems and content to accomplish challenging goals.
Co2/l.5 recognise common uses of	Manage a device by correctly	I can recognise how ICT is	I can use appropriate language in	I can open received emails and	I know how to use digital tools	I understand how to use social media	I know why you need to use

information technology beyond school Co2/1.4 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	closing websites or apps and safely turning on and off.	used beyond school.	a simple email.	save attachments to appropriate place. I can choose recipient, forward and add attachments to an email. Save an email to draft and retrieve it before sending.	responsibly to communicate.	safely and responsibly.	technology securely. I know why it is important to protect your online identity. I can recognise correct content and conduct online.
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Co2/l.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies	Recognise technology that is used at home and in school. Understand what a computer is and the different uses of computers i.e. learning, communicating, finding information, playing games etc. Reception	I know what to do if I see something inappropriate online. I am beginning to understand and adhere to the schools E-Safety policy and acceptable use policy.	I know what personal information is and why I need to keep it private. I can use technology safely and respectfully.	I can recognise unacceptable behaviour online. I can continue to use technology safely and respectfully. I can identify a range of ways to deal with inappropriate content.	I know what it means to be a responsible digital citizen.	I know how to protect my online identity and keep my personal items secure (e.g. passwords). I understand how to use social media safely and responsibly.	I know why you need to use technology securely. I know why it is important to protect your online identity. I can recognise correct content and conduct online.
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Co2/l.6 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.		I can use technology to create digital content.	I can create and save digital content to a cloud-based storage system. I can use presentation software (e.g. Keynote, Google Slides, Powerpoint).	I can use different font sizes, colours and images purposefully. I can use technology to present data and digital content.	I can create and implement a range of programmes to accomplish given goals. I can use technology to collect and present data and digital content	I can use technology to collect, analyse, evaluate and present data and digital content I can use digital devices to combine software and present data and information.	I can use technology creatively to collect, analyse, evaluate and present data and digital content. I can use a range of programmes, systems and content to accomplish challenging goals.
Vocabulary	Equipment Buttons Movement Technology Share Create Internet	Instructions Buttons Robots Patterns Program Purpose Online tools	Forward Backward Right-angle turn Algorithm Sequence Debug Predict	Sequence instructions Sequence debugging Test + improve Logo commands Sequence programming	Type + edit logo commands Sensors Open-ended problems Bugs in programs Complex programming	Explore procedures Refine procedures Variable Hardware + software control Change inputs	Predicting outputs Plan, program, test & review a program Program writing

		Communica te	Information sources Communicat ion Purposes Website content	School network Devices Computer parts Collaborate Appropriate online communicatio n Search tools Appropriate websites Owner	Different networks Information collection Reliability Owners	Different outputs Articulate solutions Commands Computing devices Internet parts Collaboration Responsibility Searching strategies Webpages	Control mimics + devices Sensors Measure input Create variables Link errors Information movement Connecting devices Different audiences Research strategies Search result rankings Acknowledge resources
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Cultural Capital and Wider Experiences	National Coding Week September 2022	Safer Internet Day February 8th Anti-bullying week November	LegosWeDo Day June
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