Computing Curriculum Map

EYFS

The most relevant statements for computing are taken from the following areas of learning:
- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

By the end of Nursery, we expect children to be able to:
- Remember rules without needing an adult to remind them
- Match their developing physical skills to tasks and activities in the setting
- Explore how things work

By the end of Reception, we expect children to be able to:
- 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
- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- 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
- Safely use and explore a variety of materials, tools, and techniques, experimenting with colour, design, texture, form and function

Y e a r 1	**When they leave Year 1, children should be able to:**
	• Recognise common uses of information technology.
	• Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
	• To use technology purposefully to create digital content.
	• Predict the behaviour of simple programs.
	• Understand what algorithms are and how they implemented on digital devices.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 1, Aut 1: Keeping Safe and Exploring Technology https://projectevolve.co.uk/toolkit/resources/years/year-one/ https://www.ilearn2.co.uk/e-safety---key-stage-1.html/	**NT Unit 1, Aut 2:** Exploring Digital Sound https://www.ilearn2.co.uk/year1musiccreation.html/	**NT Unit 1, Spr 1:** Text and images https://www.ilearn2.co.uk/year-1-text--images.html/	**NT Unit 1, Spr 2:** Introducing Programming https://www.ilearn2.co.uk/year-1-programming.html/	**NT Unit 1, Sum 1:** An Introduction to Digital Art https://www.ilearn2.co.uk/year1digitalart.html/	**NT Unit 1, Sum 2:** Mouse and Keyboard Skills https://www.ilearn2.co.uk/year1-html/

	When they leave Year 2, children should be able to:
Y e a r 2	• Recognise common uses of information technology beyond school. • Use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Use technology safely and keep personal information private. • Use technology purposefully to create digital content, comparing the benefits of different programs. • Use logical reasoning to predict the behaviour of simple programs. • Create and debug simple programs. • Debug simple programs by using logical reasoning to predict the actions instructed by the code. • Understand that programs execute by following precise and unambiguous instructions.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 2, Aut 1 Digital Literacy and Online Safety https://projectevolve.co.uk/toolkit/resources/years/year-two/ https://www.ilearn2.co.uk/e-safety---key-stage-1.html/	**NT Unit 2, Aut 2:** An Introduction to Animation https://www.ilearn2.co.uk/year-2-animation.html/	**NT Unit 2, Spr 1:** Developing Programming https://www.ilearn2.co.uk/year-2-programming.html/	**NT Unit 2, Spr 2:** Internet Research https://www.ilearn2.co.uk/year-2-research.html/	**NT Unit 2, Sum 1:** Programming with Scratch Jr https://www.ilearn2.co.uk/year-2-scratch-jr.html/	**NT Unit 2, Sum 2:** E-book creation https://www.ilearn2.co.uk/eboookcreationks1.html/

Year 3

When they leave Year 3, children should be able to:

- Recognise an input and output device and how they are used.
- Make efficient use of familiar forms of input and output devices.
- Understand that computer network enables the sharing of data and information.
- Understand that the internet is a large network of computers, and that information can be shared between computers.
- With support select and use a variety of software to accomplish goals.
- Use technology safely and respectfully keeping personal information private.
- Use technology safely and recognise acceptable and unacceptable behaviour.
- Design, write and debug programmes that control or simulate virtual events.
- Use logical reasoning to explain how some simple algorithms work.
- Use simple search technologies and recognise that some sources are more reliable than others.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 3, Aut 1 Digital Literacy and online safety https://projectevolve.co.uk/toolkit/resources/years/year-three/ https://www.ilearn2.co.uk/e-safety---key-stage-2.html/	**NT Unit 2, Aut 2** Digital Storyboard https://www.ilearn2.co.uk/year3storyboards/	**NT Unit 2, Spr 1** Document editing and creation https://www.ilearn2.co.uk/document.html/	**NT Unit 2, Spr 2** Infographics https://www.ilearn2.co.uk/year3infographics.html/	**NT Unit 2, Sum 1** Digital Art https://www.ilearn2.co.uk/year3digitalart.html/	**NT Unit 2, Sum 2** Programming in Kodu https://www.ilearn2.co.uk/year-3-kodu.html/

Year 4

When they leave Year 4, children should be able to:

- With support, select and use a variety of software on a range of digital devices.
- With support, select, use and combine a variety of software on a range of digital devices to accomplish given goals.
- Use technology responsibly and understand that communication online may be seen by others.
- Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
- Understand how results are selected and rank by search engines.
- Use filters in search technologies effectively. (TT Y5)
- Use filters in search technologies effectively and appreciate how results and selected and ranked. (TT Y5)
- Use filters in search technologies effectively and is discerning when evaluating digital content. (TT Y6)
- Decompose programmes into smaller parts.
- Use logical reasoning to detect and correct errors in algorithms and programs.
- Select, use, and combine a variety of software, systems and content that accomplish given goals.
- Decompose programmes into smaller parts.
- Use logical reasoning to detect and correct errors in algorithms and programs.
- Select, use and combine a variety of software, systems and content that accomplish given goals.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 2, Aut 1: Digital Literacy and Online Safety https://projectevolve.co.uk/toolkit/resources/years/4/ https://www.ilearn2.co.uk/e-safety---key-stage-2.html/	**NT Unit 2, Aut 2:** Internet Research https://www.ilearn2.co.uk/year-4-research.html/	**NT Unit 2, Spr 1:** Programming with Scratch https://www.ilearn2.co.uk/y4scratch.html/	**NT Unit 2, Sum 1:** Inside a computer https://www.ilearn2.co.uk/year-4-inside-a-computer/	**NT Unit 2, Spr 2:** 3D Design – Digital Modelling https://www.ilearn2.co.uk/year33ddesignteacher.html/ (Y3) https://www.ilearn2.co.uk/3ddesignteacher.html/ (Y4)	**NT Unit 2, Sum 2:** Animation https://www.ilearn2.co.uk/year-4-animation.html/

Y e a r 5	When they leave Year 5, children should be able to:
	• Begin to use internet services to share and transfer data to a third party. • Independently select and use appropriate software for a task. • Independently select, use, and combine a variety of software to design and create content for a given audience. • Understand the need to only select age-appropriate content. • Design, input and test an increasingly complex set of instructions to a program or device. • Design, write and debug programs that accomplish specific goals including controlling or simulating physical systems. • Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. • Design, write and test simple programs with opportunities for selection where a particular result will happen based on actions or situations controlled by the user. • Use logical reasoning to explain how increasingly complex algorithms work to ensure a programs efficiency. • Use other input devices such as cameras or sensors. (Y4TT) • Understand what servers and how they provide services to a network. (Y4TT)

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 2, Aut 1: Digital Literacy and online safety https://projectevolve.co.uk/toolkit/resources/years/5/ https://www.ilearn2.co.uk/e-safety---key-stage-2.html/	NT Unit 2, Aut 2: Use scratch to build a game https://www.ilearn2.co.uk/y5scratch.html/	NT Unit 2, Spr 1: Understand Computer Networks and the World Wide Web https://www.ilearn2.co.uk/year-5-computer-networks.html/	NT Unit 2, Spr 2: Digital Music Creation https://www.ilearn2.co.uk/year-5-music-creation.html/	NT Unit 2, Sum 1: Programming Robots Sphero: https://www.ilearn2.co.uk/year-5-sphero-programming-html/ Microbits: https://www.bbc.co.uk/teach/microbit/teacher-resources/znm8mbk	NT Unit 2, Sum 2: Text-based programming https://www.ilearn2.co.uk/textprogrammingstudent.html/

Year 6

When they leave Year 6, children should be able to:

- Understand how computer networks enable computers to communicate and collaborate.
- Begin to use the internet within their own creations to share and transfer data.
- Independently select, use and combine a variety of software to design and create content for a given audience including collecting analysing, evaluating and presenting data and information.
- Design and create a range of programs, systems and content for a given audience.
- Independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information.
- Use technology respectfully and responsibly.
- Identify a range of ways to report concerns about content and contact in and out of school.
- Be discerning when evaluating digital content.
- Include use of sequences, selection, and repetition with the hardware used to explore real world systems.
- Solve problems by decomposing them into smaller parts.
- Create programs which use variables.
- Use variables, sequence, selection and repetition in programs.
- Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
NT Unit 2, Aut 1: Digital Literacy and Online Safety https://projectevolve.co.uk/toolkit/resources/years/6/ https://www.ilearn2.co.uk/e-safety---key-stage-2.html/	**NT Unit 2, Aut 2:** Data Detectives https://www.ilearn2.co.uk/year-6-data-detectives/	**NT Unit 2, Spr 1:** BBC Micro:bit https://www.bbc.co.uk/teach/microbit/teacher-resources/znm8mbk	**NT Unit 2, Spr 2:** Programming in Python https://www.ilearn2.co.uk/year6-html/	**NT Unit 2, Sum 1:** Image Editing https://www.ilearn2.co.uk/imageeditingteacher.html/	**NT Unit 2, Sum 2:** Computers: Past, Present and Future https://www.ilearn2.co.uk/year-6-computers-past-present-future.html/