Year 1

Year 1 — Technology around us

Computing systems and networks

Prior learning retrieved

Early Years experiences of technology and classroom routines

New knowledge / skill

identify technology; identify a computer and its main parts; use a mouse in different ways; use a keyboard to type on a computer; use the keyboard to edit text; create rules for using technology responsibly

Why this? Why now?

Learners will develop their understanding of technology and how it can help them in their everyday lives. They will start to become familiar with the different components of a computer by developing their...

Careers link

IT technician; network engineer; systems engineer

SMSC link

Social/moral: collaborate respectfully, use technology responsibly and explain choices. Spiritual/cultural: develop curiosity, creativity and confidence with digital tools.

Climate / sustainability

Use technology purposefully; where authentic, connect tasks to efficient systems, environmental data, sustainable choices or reducing unnecessary resource use.

Key resources / platform

Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.

Key vocabulary

technology • computer • screen • mouse • keyboard • click • drag • type • save • device • program

Year 1 — Technology around us: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**Technology around us**	To identify technology	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.
2	**Using technology**	To identify a computer and its main parts	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.
3	**Developing mouse skills**	To use a mouse in different ways	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Technology around us: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Using a computer keyboard**	To use a keyboard to type on a computer	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.
5	**Developing keyboard skills**	To use the keyboard to edit text	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.
6	**Using a computer responsibly**	To create rules for using technology responsibly	Desktop/laptop devices; mouse; keyboard; Paintz or equivalent.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Computer skills and Seesaw

Digital literacy / platform fluency

Prior learning retrieved

EYFS device experiences and adult-supported digital learning

New knowledge / skill

identify key parts of a device and handle equipment carefully; log in with adult support and recognise personal login information; use click, drag and scroll to control a device; use keys including letters, space, backspace and enter; open an activity and add a simple photo, drawing or voice response; review work and submit it with support

Why this? Why now?

Pupils establish the essential routines and device skills needed to access computing and wider curriculum learning safely and increasingly independently.

Careers link

IT support technician; teacher; digital administrator

SMSC link

Social/moral: collaborate respectfully, use technology responsibly and explain choices. Spiritual/cultural: develop curiosity, creativity and confidence with digital tools.

Climate / sustainability

Use technology purposefully; where authentic, connect tasks to efficient systems, environmental data, sustainable choices or reducing unnecessary resource use.

Key resources / platform

School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.

Key vocabulary

device • login • username • password • mouse • trackpad • keyboard • app • activity • save • submit • Seesaw

Year 1 — Computer skills and Seesaw: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**Getting to know our devices**	To identify key parts of a device and handle equipment carefully	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.
2	**Logging in**	To log in with adult support and recognise personal login information	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials. Seesaw
3	**Mouse and trackpad skills**	To use click, drag and scroll to control a device	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Computer skills and Seesaw: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Keyboard skills**	To use keys including letters, space, backspace and enter	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.
5	**Using Seesaw**	To open an activity and add a simple photo, drawing or voice response	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.
6	**Saving and submitting**	To review work and submit it with support	School devices; relevant NCCE/Teach Computing software and unit resources; teacher demonstration materials.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Digital writing

Creating media

Prior learning retrieved

Y1 computer/keyboard and Seesaw foundations

New knowledge / skill

keyboard, mouse, text entry/removal, toolbar, selecting text, formatting, undo, comparing digital/paper writing

Why this? Why now?

Builds purposeful keyboard and word-processing fluency after initial device routines.

Careers link

Writer/editor; administrator; digital publisher

SMSC link

Social/cultural: communicate ideas for an audience and compare digital and handwritten forms. Moral: make responsible choices when editing and presenting work.

Climate / sustainability

Compare digital and paper choices; purposeful editing can reduce unnecessary reprinting.

Key resources / platform

Laptop/desktop; word-processing software; keyboard and mouse.

Key vocabulary

keyboard • keys • space • backspace • text • toolbar • select • format • bold • italic • undo • word processor

Year 1 — Digital writing: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**Exploring the keyboard**	To use a computer to write	Laptop/desktop; word-processing software; keyboard and mouse.
2	**Adding and removing text**	To add and remove text on a computer	Laptop/desktop; word-processing software; keyboard and mouse.
3	**Exploring the toolbar**	To identify that the look of text can be changed on a computer	Laptop/desktop; word-processing software; keyboard and mouse.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Digital writing: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Making changes to text**	To make careful choices when changing text	Laptop/desktop; word-processing software; keyboard and mouse.
5	**Explaining my choices**	To explain why I used the tools that I chose	Laptop/desktop; word-processing software; keyboard and mouse.
6	**Pencil or keyboard?**	To compare typing on a computer to writing on paper	Laptop/desktop; word-processing software; keyboard and mouse.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Digital painting

Creating media

Prior learning retrieved

Early Years experiences of technology and classroom routines

New knowledge / skill

describe what different freehand tools do; use the shape tool and the line tools; make careful choices when painting a digital picture; explain why I chose the tools I used; use a computer on my own to paint a picture; compare painting a picture on a computer and on paper

Why this? Why now?

Learners will develop their understanding of a range of tools used for digital painting. They then use these tools to create their own digital paintings, while gaining inspiration from a range of artists'...

Careers link

Digital designer; content creator; creative technologist

SMSC link

Social/moral: collaborate respectfully, use technology responsibly and explain choices. Spiritual/cultural: develop curiosity, creativity and confidence with digital tools.

Climate / sustainability

Use technology purposefully; where authentic, connect tasks to efficient systems, environmental data, sustainable choices or reducing unnecessary resource use.

Key resources / platform

Device with Paintz or suitable painting software; mouse/trackpad.

Key vocabulary

paint • tool • brush • line • shape • colour • fill • undo • erase • digital • compare

Year 1 — Digital painting: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**How can we paint using computers?**	To describe what different freehand tools do	Device with Paintz or suitable painting software; mouse/trackpad.
2	**Using shape and lines**	To use the shape tool and the line tools	Device with Paintz or suitable painting software; mouse/trackpad.
3	**Making careful choices**	To make careful choices when painting a digital picture	Device with Paintz or suitable painting software; mouse/trackpad.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Digital painting: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Why did I choose that?**	To explain why I chose the tools I used	Device with Paintz or suitable painting software; mouse/trackpad.
5	**Painting all by myself**	To use a computer on my own to paint a picture	Device with Paintz or suitable painting software; mouse/trackpad.
6	**Comparing computer art and painting**	To compare painting a picture on a computer and on paper	Device with Paintz or suitable painting software; mouse/trackpad.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Programming animations

Programming B

Prior learning retrieved

Y1 combined floor-robot algorithms unit

New knowledge / skill

ScratchJr sprites/backgrounds; commands; joined blocks; values; sprite instructions; algorithm/design

Why this? Why now?

Transfers concrete floor-robot programming to on-screen block programming.

Careers link

Game designer; animator; software developer

SMSC link

Spiritual/cultural: express ideas creatively through animation. Social: collaborate and share designs. Moral: value testing, feedback and respectful responses to others' work.

Climate / sustainability

Create animations about habitats, recycling or caring for the environment where appropriate.

Key resources / platform

Tablet/Chromebook/computer with ScratchJr.

Key vocabulary

command • block • sequence • value • sprite • background • instruction • algorithm • program • ScratchJr

Year 1 — Programming animations: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**Comparing tools**	To choose a command for a given purpose	Tablet/Chromebook/computer with ScratchJr.
2	**Joining blocks**	To show that a series of commands can be joined together	Tablet/Chromebook/computer with ScratchJr.
3	**Make a change**	To identify the effect of changing a value	Tablet/Chromebook/computer with ScratchJr.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Programming animations: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Adding sprites**	To explain that each sprite has its own instructions	Tablet/Chromebook/computer with ScratchJr.
5	**Project design**	To design the parts of a project	Tablet/Chromebook/computer with ScratchJr.
6	**Following my design**	To use my algorithm to create a program	Tablet/Chromebook/computer with ScratchJr.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Moving a robot and Robot Algorithms

Programming A

Prior learning retrieved

Early Years experiences of technology and classroom routines

New knowledge / skill

explain what a given command will do; act out a given word; combine ‘forwards’ and ‘backwards’ commands to make a sequence; combine four direction commands to make sequences; plan a simple program; find more than one solution to a problem

Why this? Why now?

Learners will be introduced to early programming concepts. Learners will explore using individual commands, both with other learners and as part of a computer program. They will identify what each command…

Careers link

Software developer; programmer; robotics engineer

SMSC link

Social/moral: collaborate respectfully, use technology responsibly and explain choices. Spiritual/cultural: develop curiosity, creativity and confidence with digital tools.

Climate / sustainability

Use technology purposefully; where authentic, connect tasks to efficient systems, environmental data, sustainable choices or reducing unnecessary resource use.

Key resources / platform

Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.

Key vocabulary

command • direction • forwards • backwards • turn • route • sequence • algorithm • program • predict • debug

Year 1 — Moving a robot and Robot Algorithms: Sessions 1–3

Session-by-session breakdown • learning objective • necessary resources

1	**Buttons** **Four directions**	To explain what a given command will do To combine four direction commands to make sequences	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.
2	**Getting there**	To plan a simple program	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.
3	**Routes**	To find more than one solution to a problem	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.

Year 1 — Moving a robot and Robot Algorithms: Sessions 4–6

Session-by-session breakdown • learning objective • necessary resources

4	**Making predictions**	To use logical reasoning to predict the outcome of a program	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.
5	**Mats and routes**	To explain that programming projects can have code and artwork	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.
6	**Algorithm design**	To design an algorithm	Bee-Bot/floor robot; floor mats; command cards; route/algorithm sheets.

Online safety is taught through PHSRE; computing lessons reinforce safe, respectful and responsible use in context.