COMPUTING CURRICULUM MAP 2025-2026

At Sheen Mount, our computing curriculum is designed to equip children with the skills, knowledge and understanding they need to thrive and be safe in our constantly evolving technological society. Through the key themes of Safety and Healthy Habits, Creativity and Expression, Cross Curricular Digital Literacy, Computational Thinking and Exploration, our children are prepared for a future technological landscape that we cannot yet fully imagine. We do this by instilling responsible behaviours and developing transferable skills within the curriculum such as communication, collaboration and critical thinking, that give children the confidence to safely tackle new problems in new ways.

Computing Lead

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Primary National Curriculum, Key Stages 1 and 2 Framework Document
September 2013

COMPUTING CURRICULUM MAP 2025-2026

5 Big Ideas in Computing at SM

Safety and healthy habits
Understanding risks and modifying behaviours

Creativity and expression
Through multimedia: art, photography, 3D modelling, music…

Computing

Exploration
Explore what is possible. Understand digital systems. Evaluate and apply new/unfamiliar technologies

Cross curricular digital literacy
Range of collaborative experiences as well as individual skills development to support next steps and future careers: data handling, word processing, typing, voice typing…

Computational thinking
Problem solving (decomposition)
Similarities (pattern recognition)
Key information (abstraction)
Logical steps (algorithms)

COMPUTING CURRICULUM MAP 2025-2026

EYFS Computing Curriculum							
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Autumn 1 PSHE
	Computing in the Early Years provides children with the foundations for becoming confident, creative, and responsible learners in a digital world. Through a balance of digital and non-digital resources, pupils explore technology in playful and meaningful ways, developing creativity, digital literacy, and healthy e-habits. With adult guidance, they begin to understand how devices are used around them, while also building the foundations of computational thinking through problem-solving, logical reasoning, and pattern recognition. These experiences align with the EYFS Characteristics of Effective Learning, helping children to explore, stay motivated, and think critically, while fostering the independence and resilience that will support progression through the computing curriculum and beyond.						
Safety and healthy habits	E-safety and the development of healthy e-habits are an essential part of the computing curriculum in the Early Years. The EYFS Statutory Framework emphasises helping children to stay safe and make positive choices, which extends to their early use of technology. Adults play a vital role in modelling safe behaviours, guiding children to take turns with devices, balance screen use with other types of play, sit safely, and know who to approach if something feels wrong. Through supportive interactions and carefully designed opportunities, children begin to develop responsibility and wellbeing in their use of technology. These early lessons, nurtured by adult guidance, provide the foundation for digital resilience and safe online behaviours as children progress through primary school and beyond.						
Creativity	Creativity is at the heart of the computing curriculum in the Early Years. The EYFS Statutory Framework highlights the importance of children expressing ideas through a rich variety of experiences. In computing, this means children use both plugged (digital) and unplugged (non-digital) activities to experiment, problem-solve, and create in imaginative ways. By exploring technology creatively—whether building, designing, or storytelling—children develop the curiosity, confidence, and flexible thinking that underpin later computing skills. This early focus on creativity provides a strong foundation for progression into primary computing, where pupils will continue to design, create, and innovate through increasingly sophisticated use of digital tools.						
Digital Literacy	The EYFS Statutory Framework highlights the value of preparing children for life in a digital world, beginning with simple, age-appropriate experiences. Through play and exploration, children learn to recognise and use everyday technology, such as tablets, interactive whiteboards, and programmable toys. With adult guidance, they begin to understand how digital tools can be used to create, communicate, and find things out. These early experiences build confidence and familiarity, forming the first steps in developing the digital literacy skills that children will need to access the wider computing curriculum and to participate safely and successfully in an increasingly digital society.						
Computational Thinking	Computational thinking in the Early Years begins well before children use complex technology. Through both digital and non-digital (unplugged) activities, children are introduced to the foundations of computational thinking—such as problem-solving, logical reasoning, and recognising patterns. They may, for example, sequence steps in a game, spot similarities in shapes, or work out how to make a programmable toy move. With adult support, these playful experiences help children see technology as a tool for creating and exploring, while also developing the flexible thinking skills that underpin digital literacy. This early grounding prepares pupils as they progress into KS1 and KS2, building towards the wider aims of the wider computing curriculum.						
Exploration	Exploration is central to the computing curriculum in the Early Years. Children are encouraged to notice and make sense of the many ways digital devices are used in the world around them. The EYFS Statutory Framework values opportunities for children to observe, question, and explore through play, and this extends to technology. With guidance from adults, pupils begin to recognise that digital tools are part of everyday life—whether scanning items at a checkout, using tablets in the classroom, or seeing traffic lights change colour. By exploring and talking about these familiar examples, children develop an early awareness of the role technology plays in communication, creativity, and problem-solving. This curiosity lays the foundation for digital literacy, helping children build the understanding and confidence they need to use technology responsibly and imaginatively as they move through the primary curriculum.						
Digital and non-digital resources	In the Early Years, a wide range of physical resources, both digital and non-digital, are used to promote learning in line with the EYFS Statutory Framework. Interactive whiteboards provide opportunities for children to engage with activities that support early literacy, numeracy, and problem-solving skills. Programmable robots and coding toys, such as Beebots, introduce children to basic coding concepts through movement and direction. Non-digital resources, including construction toys like building blocks and Lego, encourage exploration of spatial reasoning, design, and problem-solving, laying strong foundations for computing. Digital drawing and painting programs on iPads or computers allow children to express their creativity while developing fine motor control and early digital skills. Everyday objects, such as telephones, cameras, remote controls, and musical instruments, are incorporated into continuous provision, helping children understand the role of technology in their lives and how things work						
Examples of EYFS computing activities	<u>Role-Play Areas</u> Activities: • Real devices such as keyboards, old phones, laptops, and tablets are made available for children to explore. • Themed role-play settings (e.g. shops, offices, or doctor's surgeries) provide opportunities to encounter technology in familiar contexts. • Walkie-talkies and toy tills extend play by reflecting how technology is used in communication and transactions.						

COMPUTING CURRICULUM MAP 2025-2026

EYFS Links:

- Playing and Exploring: Children imitate and experiment with everyday uses of technology.
- Active Learning: Engagement is sustained as children practise turn-taking and imaginative play.
- Creating and Thinking Critically: Real-life knowledge is applied to solve problems within their play.

Construction Areas

Activities:

- Programmable robots such as Bee-Bots and Blue-Bots are available alongside blocks to encourage sequencing and navigation.
- Lego and magnetic tiles allow obstacle courses to be created, with opportunities to debug routes when outcomes differ from intentions.
- Simple circuit kits offer an introduction to how technology systems function.

EYFS Links:

- Playing and Exploring: Children test ideas through hands-on building and coding.
- Active Learning: Persistence develops as challenges are encountered and overcome.
- Creating and Thinking Critically: Planning, prediction, and refinement are evident in their designs.

Creative Areas

Activities:

- Tablets with drawing or painting apps support digital art and fine motor control.
- Digital cameras and sound recorders encourage creativity, storytelling, and self-expression.
- Stop-motion and green-screen apps, supported by adults, extend children's use of digital media.

EYFS Links:

- Playing and Exploring: Tools are tried out freely to express ideas.
- Active Learning: Concentration is sustained while creative outcomes are developed.
- Creating and Thinking Critically: Decisions are made about tools and techniques, with opportunities to experiment and refine.

Outdoor Areas

Activities:

- Large-scale construction materials enable children to design and build collaboratively.
- Programmable or remote-control toys extend exploration of direction and distance.
- Technology hunts highlight real-world devices such as traffic lights, cameras, and crossings.

EYFS Links:

- Playing and Exploring: Engagement takes place in real-world contexts.
- Active Learning: Motivation is sustained while physical and digital challenges are explored.
- Creating and Thinking Critically: Ideas are connected, outcomes predicted, and actions adapted.

Small-World and Exploration Areas

Activities:

- Light boxes, torches, and digital microscopes invite children to investigate natural objects.
- Coding-themed board games and sequencing cards introduce unplugged computational thinking.
- Interactive storybooks and QR codes linked to audio enhance reading and listening experiences.

EYFS Links:

- Playing and Exploring: Cause-and-effect relationships are discovered through hands-on play.
- Active Learning: Curiosity and enjoyment drive exploration.
- Creating and Thinking Critically: Patterns are recognised, steps sequenced, and ideas linked across contexts.

COMPUTING CURRICULUM MAP 2025-2026

	Everyday Opportunities Across Provision Activities: ● Children take photographs of their own models or artwork to support reflection. ● Digital timers and stopwatches are used in games to explore sequencing and measurement. ● Safe and responsible use of devices is consistently modelled by adults, embedding e-safety and healthy e-habits. EYFS Links: ● Playing and Exploring: Everyday uses of technology are observed and explored. ● Active Learning: Engagement continues as tools enhance play. ● Creating and Thinking Critically: Technology is evaluated for how it supports recording, measuring, and sharing.	

COMPUTING CURRICULUM MAP 2025-2026

Y1 Computing Curriculum Map							
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Autumn 1 PSHE
	Digital Literacy - Navigating computers and tablets						
Unit of work from Y1 Teach computing framework	Unit 1 Computing systems and networks – Technology around us	Unit 2 Creating media – Digital writing	Unit 3 Creating media – Digital painting	Unit 4 Programming A – Moving a robot	Unit 5 Data and information – Grouping data	Unit 6 Programming B - Programming animations	Online Safety - PSHE Kapow Online Safety - Oak National Curriculum
Key Big Ideas - Intent	• Digital Literacy • Exploration	• Digital Literacy • Exploration	Digital Literacy Creativity & Expression Exploration	Computational Thinking Exploration	• Computational Thinking • Digital Literacy	• Computational Thinking • Exploration • Creativity & Expression	Safety and Healthy Habits
Substantive Knowledge - Intent	Learners will understand that technology can help us in different ways. They will begin to understand that there are different types of technology/computing devices: such as laptops, desktops and tablets/handheld devices. They will understand that computers can help us to complete difficult and/or repetitive tasks.	Learners will begin to understand that different digital applications available can be used for many different purposes. Learners will understand that you can use a word processor (google docs) to create and manipulate text. They will begin to understand the advantages and disadvantages of using a computer to create text, and writing text on paper.	Learners will begin to understand that many exciting opportunities exist for creative expression through digital technology. They will understand that computing devices can be used to create digital artwork. They will begin to understand the advantages and disadvantages of using a computer to create artwork.	Learners will begin to understand that robots can accomplish tasks for humans (examples include: robotic lawn mower,robots in manufacturing, robotic toys). They will understand that simple robots follow commands in the sequence they are instructed to do so. They will understand that a sequence of commands carried out one after the other is called a program.	Learners will begin to understand that objects can be described in many different ways. They will begin to understand that objects have many different properties that can be used to label them and put them in groups. They will also begin to understand that an object can fit into more than one group, depending on the context.	Learners will understand that ScratchJr is an application that provides a programming environment designed especially for children to learn how to code. They will understand that command blocks can be joined together in a sequence to form a program, just like button presses on the Bee-Bots. They will understand that it may be necessary to debug a program in order for a program to carry out a task effectively.	Learners will understand that not everything online is fun. They will understand that it is important to make good choices about what they do online.
Declarative Knowledge - Intent	Learners will know that different devices can be used for different tasks. They will know that google logins are private and not to be shared with anyone other than trusted adults. They will know that they need to keep themselves safe online. They will know where to go for support when they see content that makes them feel uncomfortable.	Learners will know that word processors are an alternative way of writing to using a pencil and paper. They will know that, on Chromebooks, a keyboard and touchpad (or mouse) can be used to enter and remove text in a word processor (google docs). They will know that it is possible to change the look of their text and why this might be helpful.	Learners will know that they can create digital artwork and express themselves using specific applications on a computer. They will know that it is possible to recreate physical artwork on a computer. They will know that it is possible to create original artwork on a computer.	Learners will know that Bee-Bots are a simple type of robot. They will know what the different buttons command a Bee-Bot to do. They will know that Bee-Bots can be programmed to follow a predetermined sequence of commands. They will know that it is often necessary to try things out and get things wrong in order to progress to finding the best solution.	Learners will know that the properties of objects, such as colour, shape and size, can be used to group objects. They will know that they can choose how to group different objects by properties. They will know that grouping objects in certain ways can help them to answer questions and solve problems.	Learners will know what basic command blocks are available to them in ScratchJr. They will know that different command blocks will make a sprite do different things They will know that by linking commands blocks together in the correct sequence they can make sprites complete tasks. They will know how to add and remove command blocks themselves.	Learners will know that not everyone goes online, and that is fine. They will know that if they are upset about something online, they should tell a trusted adult. They will know that even if they are having fun online, they could still be in danger.
Procedural Knowledge and skills - Intent	Learners will be able to turn the computer on and off. They will be able to log into	Learners will be able to open a Google docs document and	Learners will be able to make marks on a screen in a drawing app using “brush”,	Learners will be able to identify examples of real-life robots. They will be able to explore and	Learners will be able to name different objects. They will be able to group	Learners will be able to find the commands to move a sprite. They will be able to use	Learners will be able to identify some of the

COMPUTING CURRICULUM MAP 2025-2026

	their Google account using a username and password. They will be able to locate and open their Google Classroom. They will be able to identify the screen, keyboard and touchpad components of a computer. They will be able to use the mouse/touchpad to complete a task. They will be able to use google classroom to open the paintz.app They will be able to open and save files.	type their name using the keyboard and touchpad. They will be able to change the font of words. They will be able to identify and use important non-letter or numeric keys on the keyboard including: Enter, Space, Shift and Backspace.	“”pen”, “spray”, “shape” and “rubber”, paint tools. They will begin to control the touchpad using clicking and dragging skills to create marks, to create different effects. They will be able to use different paint tools to draw pictures. They will be able to recreate the work of an artist using the paintz.app using appropriate paint tools. They will be able to create their own piece of original artwork in the style of the artist using the paintz.app.	tinker with hardware to find out how it works. They will be able to use logical reasoning to predict the behaviour of simple programs. They will be able to use decomposition (problem solving) to find solutions to challenges.	similar objects with similar properties. They will be able to experiment with placing them into different groups. They will be able to demonstrate that they can group objects in more than one way. They will be able to count how many objects share a property. They will be able to decide how to group objects in order to answer a question. They will be able to record and share what they have found.	command blocks to move a sprite They will be able to compare different programming tools (ScratchJr and Bee Bots). They will be able to use more than one command block by joining them together. They will be able to run their program. They will be able to debug their program.	things that happen online and explain what we should not do online Learners will be able to describe how they should feel when they are online and identify how to stay safe. Learners will be able to identify online worries and how to seek out help from a trusted adult.
Disciplinary vocabulary Add icons	Key vocabulary: Technology Computer Device Account Username Password Screen Keyboard Key(s) Mouse/touchpad Click Google classroom File Open Save	Key vocabulary: Word processor Google-doc(ument) Cursor Space key Enter key Backspace key Shift key Bold Italic Underline Font Undo/redo	Key vocabulary: App/application Digital Tool Drag Save	Key vocabulary: Command Predict Sequence Program Programmer Solution Debug	Key vocabulary: Object Data Data set Label Property Key information	Key vocabulary: Code (command) Block Background Sprite Start Run Task Design	Key vocabulary: Online Digital device Trusted Adult Internet Safe Worried Choice
Lessons - Implementation	6 (on carousel of activities - following NCCE sequence)	6 (on carousel of activities - following NCCE sequence)	6 (on carousel of activities - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	Oak - 4 lessons
Associated Software - implementation	Google Classroom paintz.app	Google Classroom Google Docs	Google Classroom paintz.app	NA	NA	ScratchJr	na
Associated Hardware - implementation	Chromebooks	Chromebooks	Tablets (possibly ipads)	Bee-Bots	NA	Tablet - ipad (may also use Chromebook)	na
Key activities/events (Learning Journey) - Implementation	*Teacher to provide each pupil with google account details: username and password.* *Teacher to add paintz.app link to google classroom* L1 - Technology around us in the classroom L2 - Using a Chromebook L3 - Developing	*Teacher to create material for pupils to use in google docs (missing Teddy template)* L1 - write your name using google docs L2 - add text to a missing teddy bear poster L3 - change the font on the poster using toolbar items **B**,	*Teacher to add paintz.app link to google classroom* L1 - opening the paintz.app and creating a self-portrait L2 - using shapes and lines to recreate a work of art L3 - making careful choices about which tools to use to recreate a work of art	*Teacher to charge BeeBots ahead of time.* L1 - understanding the buttons on a Bee Bot L2 - giving instructions (commands) L3 -creating sequences of instructions (commands) L4 - predicting the outcome	• L1 - Labelling objects and matching them • L2 - Grouping objects and counting them • L3 - Describing the properties of an object • L4 - Grouping objects in different ways • L5 - Comparing different	L1 - Comparing programming tools - Bee Bots and ScratchJr L2 - Joining command blocks L3 - Changing values in command blocks L4 - Adding sprites L5 - Project design - Space	L1 - Having fun online L2 - The online world L3 - Feeling Safe Online L4 - Online worries

COMPUTING CURRICULUM MAP 2025-2026

	mouse/touchpad skills L4 - Using a computer keyboard L5 - Developing keyboard skills L6 - Using a computer responsibly	*I*, U L4 - Change the words on the poster L5 - Improve your poster - using undo/redo buttons L6 - pros and cons of typing vs writing?	(colour, line type etc.). L4 - Which tool is the best tool for the job? L5 - Create your own original digital artwork L6 - pros and cons of digital art vs physical art?	of sequences L5 - Choosing the order of commands and debugging L6 - problem solving - decomposition	groups of objects • L6 - Using groups to help answer questions	Race! L6 - Following my design - testing and debugging their creation.	
Assessment - review							
Progression	As this is a Year 1 unit, no prior knowledge is assumed. This unit progresses students' knowledge and understanding of technology and how they interact with it in school. Learners will build their knowledge of parts of a computer and develop the basic skills needed to effectively use a computer keyboard, touchpad and mouse. This unit provides foundational knowledge for the Y2 Computer systems and networks unit, IT around us.	From the previous unit of work, learners should already be familiar with: How to switch their device on Usernames Passwords This unit progresses their knowledge and understanding of using computers to create and manipulate digital content, focussing on using a word processor. Following this unit, learners will further develop their digital writing skills in the Year 3 – 'Desktop publishing' unit and the Year 6 – 'Web page development' unit.	Learners should already be familiar with: How to switch their device on Usernames Passwords For an introduction to keyboard and mouse skills, learners may benefit from completing the Year 1 Computing Systems & Networks unit prior to this unit.	As this is a Year 1 unit, no prior knowledge is assumed. This unit progresses learners' knowledge and understanding of giving and following instructions. It moves from giving instructions to each other to giving instructions to a robot by programming it.	This unit will introduce learners to data and information. It will introduce learners to the concept of labelling and grouping objects based on their properties. Learners will develop their understanding that objects can be given labels, which is fundamental to their future learning concerning databases and spreadsheets. In addition, learners will begin to improve their ability to use dragging and dropping skills on a device. Following this unit, in year 2, learners will present data graphically in pictograms.	This unit progresses learners' knowledge and understanding of programming and follows on from 'Programming A – Moving a robot', where children will have learned to program a floor robot using instructions.	Foundation for Y2 ONA: • Media influence - is everything we see online true. • How to stay safe online

COMPUTING CURRICULUM MAP 2025-2026

Y2 Computing Curriculum Map							
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Autumn 1 PSHE
Unit of work from Y2 Teach computing framework and unit overview	Unit 1 Computing systems and networks – IT around us Learners will develop their understanding of what information technology (IT) is and will begin to identify examples. They will discuss where they have seen IT in school and beyond, in settings such as shops, hospitals, and libraries. Learners will then investigate how IT improves our world, and they will learn about the importance of using IT responsibly.	Unit 2 Creating Media - Digital Photography Learners will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real.	Unit 3 Programming A - robot algorithms This unit develops learners' understanding of instructions in sequences and the use of logical reasoning to predict outcomes. Learners will use given commands in different orders to investigate how the order affects the outcome. They will also learn about design in programming. They will develop artwork and test it for use in a program. They will design algorithms and then test those algorithms as programs and debug them.	Unit 4 Data and Information - Pictograms This unit introduces the learners to the term 'data'. Learners will begin to understand what data means and how this can be collected in the form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will then progress onto presenting data in the form of pictograms and finally block diagrams. Learners will use the data presented to answer questions.	Unit 5 Creating Media - Digital Music Learners will explore how music can make them think and feel. They will make patterns and use those patterns to make music with both percussion instruments and digital tools. They will also create different rhythms and tunes, using the movement of animals for inspiration. Finally, learners will share their creations and compare creating music digitally and non-digitally.	Unit 6 Programming B - Programming quizzes This unit recaps learning from the Y1 Scratch Junior unit 'Programming B - Programming animations'. Learners begin to understand that sequences of commands have an outcome and make predictions based on their learning. They use and modify designs to create their own quiz questions in ScratchJr and realise these designs in ScratchJr using blocks of code. Finally, learners evaluate their work and make improvements to their programming projects.	Online Safety - PSHE Kapow Online Safety - Oak National Curriculum Online Safety - Oak National Curriculum
Key Big Ideas - Intent	Exploration • Safety and Healthy Habits	Creativity Digital Literacy • Safety and Healthy Habits	Computational Thinking Exploration	Digital literacy Computational Thinking	Exploration Creativity Digital Literacy	Computational Thinking Exploration	• Safety and Healthy Habits
Substantive Knowledge - Intent	Learners will develop their understanding of what information technology (IT) is. They will understand that IT is used in many different environments. They will understand that IT needs to be used responsibly,	Learners will understand that different devices can be used to take photos. They will understand that even though some images look real, they may not be.	Learners will understand that different instructions can result in different outcomes.	Learners will begin to understand the importance of organising data effectively for counting and comparing. They will begin to understand the advantages of using computers rather than manual methods to create pictograms.	Learners will understand that patterns exist within music and can be used for the basis of both rhythms and tunes. They will understand that in addition to playing physical musical instruments, digital tools can also be used to create and play music.	Learners will begin to understand that sequences exist in real life scenarios. They will understand that there is a connection between real life sequences and algorithms.	Learners will understand that some things online are not real. They will understand that people online are not necessarily who they say they are.
Declarative Knowledge - Intent	Learners will know that computers are a part of IT. They will know that IT can often be used for different purposes. They will know that it is important to use IT safely. They will know that IT can help us.	Learners will know the difference between landscape and portrait photos. They will know that there are different ways of improving a photo including: lighting, They will know that they can use different tools to alter photos.	Learners will know that a series of instructions is also called a sequence. They will know that the order of instructions within a sequence is important and can change outcomes. They will know that a sequence of instructions is also known as an algorithm.	Learners will know that computers can be used to view data in different formats. They will know that pictograms can be used to answer simple questions about objects. They will know that there are other ways to present data than using tally charts and pictograms. They will know that you should be careful when sharing any information/data.	Learners will know that they use untuned percussion instruments and computers to generate rhythms. They will know that images and sounds can be connected to communicate emotions and that this is an important feature of films and online media. They will know that music is a sequence of notes that digital tools can be used to generate.	Learners will know that programs can be improved by modifying them. They will know that sometimes it is necessary to	Learners will know rules for staying safe online. They will know what to do if they see someone being unkind online. They will know what they can safely share online. They will know what to do if they share something online by mistake.

COMPUTING CURRICULUM MAP 2025-2026

Procedural Knowledge and skills - Intent	Learners will be able to describe different uses of computers. They will be able to talk about and explain different uses of IT. They will be able to identify how IT is used at school. They will be able to identify IT uses beyond school.	Learners will begin to know how to distinguish real images from fabricated images. Learners will be able to take a photo using a digital device. They will be able to explain the process of taking a good photograph. They will be able to describe what makes a good photograph. They will be able to recognise when there is not sufficient light for a photo. They will be able to use different tools to edit their photo to achieve a desired effect. They will be able to identify some images that have been changed from raw images.	Learners will be able to describe a series of instructions as a sequence. They will be able to use an algorithm to program a sequence on a floor robot. They will be able to use logical reasoning to make predictions by following a program step by step to identify what the outcome will be. They will be able to compare their predictions to the outcome. They will be able to design their own algorithm to achieve a desired goal. They will be able to test and debug their programs.	Learners will know how to enter data onto a computer. Learners will be able to create their own tally charts to organise data, and represent the tally count as a total. They will be able to compare totals in a tally chart. They will be able to create a pictogram to arrange objects (including people) by an attribute and answer 'more than'/'less than' and 'most/least' questions about the attribute. They will be able to use a computer program to present information in different ways, such as a block diagram. They will be able to give simple examples of why information should not be shared.	Learners will be able to listen to music and describe how it makes them feel. They will be able to use computers (and untuned percussion instruments) to create and listen to different rhythm patterns. They will be able to use a computer to experiment with pitch. They will be able to refine and improve a musical pattern on a computer. They will be able to create a musical pattern on a computer that evokes a particular emotion.	They will know how to run programs using different blocks in ScratchJr, including the Green Flag. Learners will be able to identify the start of a sequence and predict the outcome of a sequence of commands. They will be able to match two different sequences that have the same outcome. They will be able to decide which blocks to use to meet a given design and to build a sequence of blocks needed to achieve it. They will be able to create a program based on a new design. They will be able to modify and improve their design as well as to debug it.	Learners will be able to explain how to identify when something they see online is fake. They will be able to explain what to do if they think someone is lying online. They will be able to explain who it is safe to speak to online.
Disciplinary vocabulary	Key vocabulary: Computers Devices Information Technology Personal Computers (PCs) Laptops Tablets Printers Scanners Smart Speakers	Key vocabulary: Image Photo/photograph Portrait Landscape Composition Frame/framing Blur Edit	Key vocabulary: Sequence Algorithm Program Debug	Key vocabulary: Tally chart Information Data Attribute Pictogram Block diagram Pattern	Key vocabulary: Pattern Rhythm Tune Percussion Tuned/untuned Pitch	Key vocabulary: Sequence Program Command Outcome Blocks Run Algorithm Feature Debug	Key vocabulary: Online Digital device Trusted Adult Internet Safe
Lessons - Implementation	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	Oak - 9 lessons
Associated Software - implementation	Google classroom Google slides	Camera (on tablet) Photos (on tablet) Google photos	N/A	Nj2e pictogram j2e chart	Chrome Music Lab	ScratchJr	na
Associated Hardware - implementation	Chromebooks	Tablets	Bee-Bots	Chromebooks	Chromebooks	Tablet - ipad (may also use Chromebook)	na
Key activities/events (Learning Journey) - Implementation	*Teacher to remind each pupil of their google account details: username and password.* *Teacher to add google slide links to google classroom* L1 - What is IT? L2 - IT in school L3 - IT in the world L4 - The benefits of IT L5 - Using IT safely L6 - Using IT in different	*Teacher to* L1 - Taking photographs L2 - Landscape or portrait L3 - What makes a good photography? L4 - Lighting L5 - Effects L6 - Is it real?	*Teacher to create material for pupils to use in google docs* • L1 - Giving instructions • L2 - Same but different • L3 - Making predictions • L4 - Mats and routes • L5 - Algorithm design • L6 - Debugging	*Teacher to create material for pupils to use in google docs* • L1 - Counting and comparing • L2 - Entering data • L3 - Creating pictograms • L4 - What is an attribute? • L5 - Comparing people • L6 - Presenting information	*Teacher to create material for pupils to use in google docs* • L1 - How music makes us feel • L2 - Rhythms and patterns • L3 - How music can be used • L4 - Notes and tempo • L5 - Creating digital music • L6 - Reviewing and editing music	*Teacher to create material for pupils to use in google docs* • L1 - ScratchJr recap • L2 - Outcomes • L3 - Using a design • L4 - Changing a design • L5 - Designing and creating a program • L6 - Evaluating	L1 - Spotting fakes L2 - Why people lie online L3 - What to do if you see lies online L4 - How to search online L5 - Rules for staying safe online L6 - Deciding what to do online L7 - People on the

COMPUTING CURRICULUM MAP 2025-2026

	ways						internet L8 - Talking to people online L9 - Sharing photos and videos online
Assessment - review							
Progression	This unit progresses learners' understanding of technology and how they interact with it. They will develop this understanding to become familiar with the term information technology and will be able to identify common features of IT. This unit also builds on the learners' understanding of using technology safely and responsibly.	This unit begins the learners' understanding of how photos are captured and can be manipulated for different purposes. Following this unit, learners will develop their photo editing skills in Year 4.	Learners have experience of creating short programs using floor robots and predicting the outcome of a simple program in Y1. This unit progresses learners' knowledge and understanding of algorithms and how they are implemented as programs on digital devices. Learners will spend time looking at how the order of commands affects outcomes. Learners will use this knowledge and logical reasoning to trace programs and predict outcomes.	This unit progresses students' knowledge and understanding of grouping data. It builds on the Year 1 Data and Information unit where learners labelled objects and grouped them based on different properties. In Year 3 learners develop their understanding of attributes (properties) using branching databases to structure data according to different object attributes.	Learners already have experience of making choices on a tablet/computer from Year 2, unit2 and navigate within an application. Learners also have experience of patterns from unit 4. This unit progresses students' knowledge through listening to music and considering how music can affect how we think and feel. Learners will then purposefully create rhythm patterns and music. Their knowledge is further progressed in digital media units in both Y3 and Y4.	This unit builds on previous units of learning in Y1 and Y2 and progresses learners' knowledge and understanding of instructions in sequences and the use of logical reasoning to predict outcomes. It provides the foundation of programming units of work in Y3 and Y4.	This unit builds on units 1,2 and 4 as well as learning in Y1.

COMPUTING CURRICULUM MAP 2025-2026

Y3 Computing Curriculum Map							
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1 (AI)	Summer 2	Autumn 1 PSHE
Unit of work from Y1 Teach computing framework	Unit 1 Computing systems and networks – Connecting computers Through "plugged" and "unplugged" activities, learners will develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. They will also compare digital and non-digital devices. Next, learners will be introduced to computer networks, including devices that make up a network's infrastructure, such as wireless access points and switches. Finally, learners will discover the benefits of connecting devices in a network.	Unit 2 Creating Media - Stop-frame animation Through "plugged" and "unplugged" activities, learners will use a range of techniques to create a stop-frame animation. Next, they will apply those skills to create a story-based animation. This unit will conclude with learners adding other types of media to their animation, such as music and text.	Unit 3 Programming A - Sequences, Loops and Events. Learners will experience and explore the Code.org programming environment, CS Fundamentals (Course C – 2020). (ScratchJr used in KS1). They will build on their existing knowledge of the basics of programming, fostering collaboration techniques, investigation and critical thinking skills, as well as persistence in the face of difficulty. Learners will create programs with sequencing, loops, and events. They will investigate problem-solving techniques and by the end of the unit, will create interactive games that they can share.	Unit 4 Data and information – Branching databases Through "plugged" and "unplugged" activities, learners will develop their understanding of what a branching database is and how to create one. They will use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. Learners will create physical and on-screen branching databases. To conclude the unit, they will create an identification tool using a branching database, which they will test by using it. They will also consider real-world applications for branching databases.	Unit 5 Creating Media - Desktop Publishing Through "plugged" and "unplugged" activities, learners will become familiar with the terms 'text' and 'images'. They will use desktop publishing software and consider careful choices of font size, colour and type to edit and improve premade documents. Learners will be introduced to the terms 'templates', 'orientation', and 'placeholders' and begin to understand how these can support them in making their own template for a magazine front cover. Learners will look at a range of page layouts thinking carefully about the purpose of these and evaluate how and why desktop publishing is used in the real world.	Unit 6 Programming B - Conditionals Through "plugged" and "unplugged" activities, learners will build upon vocabulary learnt and their understanding of commands in Spring 1. Children will use Code.org to build skills in programming specific to conditionality.. CS Fundamentals (Course D – 2020). Children will learn the phrase 'conditionals' and how they are used in algorithms.	Online Safety - PSHE Kapow Learners will develop their understanding of how to be kind online as well as what to do when others are unkind. They will learn to recognise fake emails and how to avoid being tricked online.
Key Big Ideas - Intent	Exploration Computational thinking Digital literacy	Creativity • Digital literacy	Computational thinking Exploration	Digital literacy Computational thinking Safety and healthy habits	Creativity Digital Literacy Safety and healthy habits	Computational thinking Exploration	Safety and Healthy Habits
Substantive Knowledge - Intent	Learners will understand that inputs, processes, and outputs are fundamental to all digital devices. They will understand that digital devices can change the way that we work. They will understand that a benefit of a computer network is that it can be used to share information.	Learners will understand that animation is a connected sequence of drawings, photographs or images.	Learners will understand that Programs are made up of **sequences of commands** that are carried out **in order**, and changing the order can change the outcome. Objects in a program respond exactly to the commands they are given, starting from a **command that triggers the program**.	Learners will understand that branching databases can be used to organise objects into groups in a clear and logical way. They will understand that databases have real world applications when trying to sort objects by different attributes.	Learners will understand the terms 'text' and 'images'. They will understand that text and images need to be used carefully to communicate messages clearly. They will understand the importance of using text, images and emojis respectfully online. They will understand why desktop publishing can be helpful.	Learners will understand that we frequently use conditions for things in our everyday lives.	Learners will understand the importance of being kind online and what this looks like.
Declarative Knowledge - Intent	Learners will know that "IPO" stands for input, process, output. They will know what the inputs and outputs on a chromebook are.	Learners will know that a storyboard detailing characters, settings and events is used to plan an effective stop-frame animation.	A **sequence** is a set of instructions that are followed **one after another** in the order they are written.	Learners will know that questions with yes/no answers can be used to identify and compare objects. They will know what a branching database is.	Learners will know that text and images convey information. They will know that text and layout can be edited to	Learners will know that in programming, conditionals can be used to determine what happens based on whether a condition is true or false. They will know that in "until" loops, a sequence of looped	Learners will know that cyberbullying is a type of bullying that can occur online. They will know that not all emails

COMPUTING CURRICULUM MAP 2025-2026

	They will know that there are different ways of connecting to a computer network. They will know that a network has key components that include a server and wireless access points.	They will know that effective animations require careful and consistent work. They will know that incorporating other media (music and text) into an animation can improve the overall effect.	Commands in a program each have a **specific action or outcome**.		effectively suit a given purpose. They will know that an editorial designer is a person responsible for putting content together. They will know that templates are useful for efficiently creating media for a given purpose.	events will occur until a given condition is met.	are genuine. They will know they shouldn't click on links in an email unless they are sure about what it is.
Procedural Knowledge and skills - Intent	Learners will know how to identify input and output devices. Learners will be able to explain that digital devices accept inputs and produce an output/outputs, according to an intermediate process. They will be able to explain what makes a secure password. They will be able to explain a simple process. They will be able to explain how digital devices can be used for different activities. They will be able to recognise similarities and differences between using digital devices and using non-digital tools. They will be able to explain how messages are passed through multiple connections. They will be able to explain the role of a switch, a server, and a wireless access point in a network. They will be able to recognise the main physical components of a network.	Learners will know how an animation/flip book works. They will know how to create a storyboard to help them plan an animation. Learners will be able to create their own flipbook animation. They will be able to create their own simple stop-frame animation using existing images. They will be able to plan an animation using a storyboard. They will be able to use "onion skinning" to make small changes between frames. They will be able to review a sequence of frames to check and improve the quality of their animation. They will be able to evaluate the quality of an animation. They will be able to add other media (music and text) to an animation.	Learners will know how to identify the objects used in a program and understand that they have properties that can change. Create sequences by **joining commands together** in a logical order. Use commands to create **movement and sounds**. Test a program and check whether it performs as expected. Learners will be able to build a working program that uses **sequenced commands**. Order commands correctly to achieve a desired outcome. Explain what their program does and why the **order of commands matters**.	Learners will know how to test and evaluate a branching database to see if it works. Learners will be able to create simple yes/no questions to split a collection of objects into groups. They will be able to identify the attributes needed to collect data about an object. They will be able to select an attribute to separate different objects into groups. They will be able to create a group of objects within an existing group. They will be able to use a sequence of yes/no questions to arrange objects into a tree structure. They will be able to compare two branching database structures and determine which is the most efficient. They will be able to explain that questions need to be ordered carefully to split objects into similarly sized groups. They will be able to create their own branching database linked to a real-world scenario.	Learners will be able to identify the advantages and disadvantages of using text and images. They will be able to change font style, size, and colours for a given purpose. They will be able to edit text and content. They will be able to explain that text can be changed to communicate more clearly. They will be able to explain what 'page orientation' means. They will be able to recognise placeholders and explain why they are important. They will be able to create a template for a particular purpose. They will be able to choose the best locations for content. They will be able to paste text and images to create a magazine cover. They will be able to choose a suitable layout for a given purpose. They will be able to identify the uses of desktop publishing in the real world.	Learners will know how to use loops in a program to simplify a sequence. They will know how to distinguish between loops that repeat a fixed number of times and loops that repeat as long as a condition is true. They will know how to define circumstances when certain parts of a program should run and when they shouldn't. Learners will be able to define circumstances when certain parts of a program should run and when they shouldn't. They will be able to determine whether a conditional is met based on criteria. They will be able to solve puzzles using a combination of looped sequences and conditionals. They will be able to translate spoken language conditional statements into a program. They will be able to use a while loop to create programs that can solve problems with unknown values. They will be able to decide whether a conditional is met based on criteria. They will be able to interpret a program and predict the outcome, given a set of inputs.	Learners will know how to use positive language in an email. They will know how to be responsible digital citizens in encounters with others online. They will know what to do if they receive a suspicious email. Learners will be able to recognise when digital behaviour is unkind. They will be able to recognise unkind behaviour and know how to report it. They will be able to take appropriate action, if they are aware of others who are victims of cyberbullying. They will be able to recognise when an email might be fake.
Disciplinary vocabulary Add icons	Key vocabulary: Digital device Input Process Output	Key vocabulary: Animation Flip book Stop-frame animation Frame	Key vocabulary: Algorithm Bug De-bug Click	Key vocabulary: Attribute Value Questions Table	Key vocabulary: Text Images Advantages Disadvantages	Key vocabulary: Statements Commands Condition Conditionals	Key vocabulary: email identify content cyberbullying

COMPUTING CURRICULUM MAP 2025-2026

	Secure
	Password
	Cyber attack
	Program
	Digital
	Non-digital
	Connection
	Network
	Network switch
	Server
	Wireless access point
	Network cables
	Network sockets
		Sequence
		Image
		Photograph
		Setting
		Character
		Events
		Onion skinning
		Consistency
		Evaluation
		Media
		Import
		Transition
			Double-click
			Drag
			Drop
			Program
			Programming
			App/application
			Loop
			Repeat
			Event
				Object
				Branching database
				Equal
				Even
				Separate
				Structure
				Compare
				Order
				Organise
				Selecting
				Information
				Decision tree
					Communicate
					Font
					Style
					Landscape orientation
					Portrait orientation
					Placeholder
					Template
					Layout
					Content
					Desktop publishing
					Purpose
					Benefits
						If
						Else
						Loop
						Repeat
						Until
						While
							gaming
							influencer
							password
							fake
							phishing
							scam

Lessons - Implementation	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following code.org sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following code.org sequence)	Kapow - 3 lessons
Associated Software and links- implementation	Google docs • L1https://www.youtube-nocookie.com/embed/3ebesxcmriU • L1https://www.security.org/how-secure-is-my-password/ • L3 - paintz.app	iMotion L3https://www.youtube.com/watch?v=TY7OhePXDII	Code.org	https://www.j2e.com/jit5#branch	https://www.canva.com/ *Teachers to send letter to parents requesting permission for their child to use Canva in an educational setting*	https://studio.code.org/courses/coursed-2025/units/1?section_id=5636622&viewAs=Instructor	na
Associated Hardware - implementation	Chromebooks Access to school's server, switch, and wireless access points (L6)	Tablet - ipads	Chromebooks	Chromebooks	Chromebooks or tablets	Chromebooks	na
Key activities/events (Learning Journey) - Implementation	*Teacher to remind each pupil of google account details: username and password.* L1 - How does a digital device work? L2 - What parts make up a digital device? L3 - How do digital devices help us? L4 - How am I connected? L5 - How are computers connected? L6 - What does our school network look like?	*Teacher to create material for pupils to use in google docs* L1 - Can a picture move? L2 - Frame by frame L3 - What's the story? L4 - Picture perfect L5 - Evaluate and make it great! L6 - Lights, camera, action!	• L1 - Programming with angry birds • L2 - Debugging in Maze • L3 - Collecting Treasure with Laurel • L4 - Loops with Rey and BB-8 • L5 - Harvesting crops with loops • L6 - Build a flappy game	*Teacher to create material for pupils to use in google docs* • L1 - Yes or no questions • L2 - Making groups • L3 - Creating a branching database • L4 - Structuring a branching database • L5 - Planning a branching database • L6 - Two ways of presenting information	*Teacher to create material for pupils to use in google docs* • L1 - Words and pictures • L2 - Can you edit it? • L3 - Great template! • L4 - Becoming a designer • L5 - Lay it out • L6 - Why desktop publishing?	*Teacher to create material for pupils to use in google docs* • L1 - (L14) Conditionals with cards • L2 - Looking ahead with minecraft • L3 - If/Else with Bee • L4 - While loops in Farmer • L5 - Until loops in Maze • L6 - End of year assessment	Part of Y3 safety and the changing body unit of work L3 - Being kind online L4 - cyberbullying L5 - Fake emails
Assessment - review					•		
Progression	This unit progresses learners' knowledge and understanding of technology by focusing on digital and non-digital devices, from the following units; Technology around me Year 1 and IT around us Year 2, and introducing the concept of computers connected together as a network. Following this	This unit progresses the learner's knowledge and understanding of using digital devices to create media, exploring how they can create stop-frame animations. It builds on learners' previous understanding of images from the Digital Photography Year 2 unit. Following this unit, learners	In Y1 and Y2, learners developed their basic programming skills in ScratchJr. In order for learners to recognise that there are number of different platforms for programming and to become accustomed to working in different environments, this unit	This unit progresses learners' knowledge and understanding of the categories of data handling, with a particular focus on implementation. It builds on their knowledge of data and information from Key Stage 1; Grouping data in Year 1 and Pictograms in Year 2. They will continue to develop their	This unit progresses learners' knowledge and understanding of using digital devices to combine text and images building on work from the following units; Digital Writing Year 1, Digital painting Year 1, and Digital Photography Year 2.	This unit of work progresses programming skills from Y3 Spring 1 in the Code.org environment. It reinforces the Task,Design, Code, Running methodology and introduces the concept of conditionality.	

COMPUTING CURRICULUM MAP 2025-2026

	unit, learners will explore the internet as a network of networks in Y4.	will further develop their video editing skills in Year 5.	progresses the learner's knowledge and understanding using Code.org. It focuses on developing learners' understanding of sequences in a new programming language and highlights that the order of sequences is important. This unit also begins to develop learners' understanding of design in programming. When programming, there are four levels which can help describe a project (known as levels of abstraction). Research suggests that this structure can support learners in understanding how to create a program and how it works: ● Task - what is needed ● Design - what it should do ● Code - how it is done ● Running the code - what it does	understanding of attributes and begin to construct and interrogate branching databases as a means of displaying and retrieving information.			

COMPUTING CURRICULUM MAP 2025-2026

Y4 Computing Curriculum Map

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1 (AI)	Summer 2	Autumn 1 PSHE
Unit of work from Y1 Teach computing framework	Unit 1- Computing systems and networks – The Internet Learners will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and will be given opportunities to explore the World Wide Web for themselves in order to learn about who owns content and what they can access, add, and create. Finally, they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information. This unit requires devices with an internet connection. Chrome Music Lab is used in one lesson to demonstrate content which can be produced on the World Wide Web.	Unit 3 - Programming A - Loops and shapes Learners will build upon vocabulary learnt and their understanding of programming from Y3 Summer 2. Children will use Code.org to build skills in programming specific to loops. CS Fundamentals (Course D – 2020). Children will use repetition in their programming (including nested loops) to create different and increasingly complex shapes.	Unit 4 - Data and information – Data logging Learners will consider how and why data is collected over time. Pupils will consider the senses that humans use to experience the environment and how computers can use special input devices called sensors to monitor the environment. Pupils will collect data as well as access data captured over long periods of time as part of their work on sound in science. They will look at data points, data sets, and logging intervals. Pupils will spend time using a computer to review and analyse data. Towards the end of the unit, pupils will pose questions and then use data loggers to automatically collect the data needed to answer those questions.	Unit 2 - Creating Media - audio production Learners will identify the input device (microphone) and output devices (speaker or headphones) required to work with sound digitally. Learners will discuss the ownership of digital audio and the copyright implications of duplicating the work of others. In order to record audio themselves, learners will use Audacity to produce a podcast, which will include editing their work, adding multiple tracks, and opening and saving the audio files. Finally, learners will evaluate their work and give feedback to their peers.	Unit 5 - Machine Learning This short sequence of lessons is designed to quickly introduce learners to machine learning, a type of artificial intelligence. Pupils will explore how training data is used to enable a machine learning model to classify new data.	Unit 6 - Creating media - photo editing Learners will develop their understanding of how digital images can be changed and edited, and how they can then be resaved and reused. They will consider the impact that editing images can have and evaluate the effectiveness of their choices.	PSHE Kapow
Key Big Ideas - Intent	Exploration Safety and healthy habits Digital literacy	Computational Thinking Creativity	Digital literacy Exploration	Creativity Digital literacy	Exploration Computational thinking Digital literacy	Creativity Digital literacy Safety and healthy habits	Safety and Healthy Habits
Substantive Knowledge - Intent	Learners will understand that the internet is a network of networks. They will understand that internet services can be used to create content online. They will understand that information can be shared across the internet.	Learners will understand that failure (First Attempt In Learning) is normal when learning a new skill or trying something out for the first time.	Learners will understand that data gathered over time can be used to answer questions scientifically.	Learners will understand that sound can be recorded using digital devices. They will understand that podcasts are an effective communication tool if produced effectively.	Learners will understand that artificial intelligence is becoming increasingly prevalent in people's lives. They will understand that machine learning is a form of artificial intelligence.	Learners will understand that there are ethical issues that should be considered when editing images. They will understand the link between taking a photograph and then editing it for a given purpose.	Learners will understand that age restrictions are designed to protect them. They will be able to understand the benefits and risks of sharing material online. They will understand the difference between private and public. They will understand that not all information on search engines is valuable.
Declarative Knowledge - Intent	Learners will know that some information should be kept in or out of a network to keep it safe.	Learners will know that programs don't always work as intended and may need debugging.	Learners will know that they can choose a relevant data set to answer a given question.	Learners will know that the person who records sound is the person who determines who is allowed to use the sound.	Learners will know that human biases can impact machine learning and outcomes.	Learners will know that images can be combined to support a given purpose.	They will know who they can talk to if they are worried about

COMPUTING CURRICULUM MAP 2025-2026

	They will know that networked devices make up the internet. They will know that the World Wide Web contains websites and web pages. They will know where websites are stored when uploaded to the WWW. They will know that different types of media can be shared on the WWW. They will know that content on the internet is often "owned". They will know that there are rules to protect content. They will know that not everything they see on the internet is true, honest, or accurate.	They will know that the process of fixing programs is known as debugging. They will know that debugging is a type of problem solving activity that requires critical thinking skills. They will know that using loops is an important skill in programming because manually repeating commands is tedious and inefficient.	They will know that you can use a digital device to collect data automatically. They will know that data from sensors can be recorded. They will know that a digital device can be used to collect data automatically. They will know that a data logger collects data at given points. They will know that a computer can help analyse data from a data logger.	They will know that audio recordings can be edited. They will know that sound effects can be created as layers in their recordings.	They will know that high quality training data is essential to effective machine learning.	They will know that cloning is a process that can be used to change the composition of a photo or to retouch it. They will know that it isn't always appropriate to edit an image and considerations behind this. They will know that not all images they see are real.	anything that has happened online.
Procedural Knowledge and skills - Intent	Learners will know how to access websites on the WWW. Learners will be able to demonstrate how information can be shared across the internet. They will be able to explain why a network needs protecting. They will be able to explain how the internet lets us view the World Wide Web. They will be able to describe networked devices and how they connect. They will be able to explain that the internet is used to provide many services. They will be able to describe how content can be added and accessed on the World Wide Web (WWW). They will be able to add content to the WWW. They will be able to explain that websites and their content are created by people They will be able to suggest who owns the content on websites. They will be able to explain why some information online may not be honest, accurate, or legal.	Learners will be able to break down a long sequence of instructions into the largest repeatable sequence. They will be able to modify an existing program to solve errors. They will be able to order movement commands as sequential steps in a program. They will be able to implement a plan to debug a program. They will be able to read and comprehend given code. They will be able to create an interactive game using sequence and event-handlers. They will be able to identify actions that correlate to input events. They will be able to construct a program using structures that repeat areas of code They will be able to improve existing code by finding areas of repetition and moving them into looping structures. They will be able to differentiate between commands that need to be repeated in loops and commands that should be used on their own.	Learners will know how to identify the intervals used to collect data. They will know how to observe data at different levels of detail. Learners will be able to suggest questions that can be answered using a given data set. They will be able to identify data that can be gathered over time. They will be able to explain what types of data can be collected using sensors. They will be able to use data from a sensor to answer a given question. They will be able to discuss features of the data that they have captured. They will be able to sort data to find information. They will be able to explain that there are different ways to view data. They will be able to identify the data needed to answer questions. They will be able to plan how to collect data using a data logger.	Learners will know how to create a podcast. They will know how to add sounds to a podcast. Learners will be able to identify the input and output devices used to record and play sound. They will be able to use a computer to record audio. They will be able to re-record their voices to improve a recording. They will be able to inspect the soundwave view to know where to trim a recording. They will be able to combine sounds to make a podcast more engaging and explain their choices. They will be able to save their project so the different parts remain editable. They will be able to plan appropriate content for a podcast. They will be able to explain the difference between saving a project and exporting an audio file. They will be able to evaluate the effective use of audio and suggest improvements.	Learners will be able to train and test a machine learning model. They will be able to identify characteristics that could be used for machine learning training purposes. They will be able to give everyday examples of artificial intelligence in our lives.	Learners will know how to use photo editing software to improve an image for a given purpose. Learners will be able to improve an image by rotating it. They will be able to explain why it might be useful to crop an image They will be able to use photo editing software to crop an image. They will be able to experiment with different colour effects and explain preferences according to a given scenario. They will be able to add to the composition of an image by cloning. They will be able to identify how a photo edit can be improved. They will be able to remove parts of an image using cloning. They will be able to use a range of tools to select and copy part of an image. They will be able to use a range of tools to copy between images.	Learners will be able to give reasons to support a point of view. They will be able to explain some of the risks of sharing some images online. They will be able to explain the difference between a secret and a surprise. They will be able to explain why some information might come up in a search that is not relevant.

COMPUTING CURRICULUM MAP 2025-2026

	They will be able to explain why they need to think carefully before sharing content.	They will be able to identify and use nested loops in their own programs.	They will be able to use a data logger to collect data. They will be able to interpret data and draw conclusions from data collected. They will be able to explain the benefits of using a data logger.	They will be able to edit and improve their podcast.		They will be able to explain why photos might be edited. They will be able to describe the image I want to create. They will be able to choose suitable images for a given project/purpose. They will be able to create a project that is a combination of other images. They will be able to review and evaluate images against a given criteria and use feedback to improve their work. They will be able to add text and my image to complete the project.	
Disciplinary vocabulary Add icons	Key vocabulary: network internet network devices Router World Wide Web websites webpages content ownership sharing	Key vocabulary: bug debugging program programming Loop Order Sequence Event Repeat Command	Key vocabulary: Data Data point Data set Digital device input sensor Data logger Interval	Key vocabulary: Audio Input device Microphone Output device Speaker Record Produce Recording engineer Copyright Podcast Layer Soundwave effect	Key vocabulary: Machine learning Artificial intelligence Training data	Key vocabulary: Image Edit Digital Crop Rotate Undo Save Adjustments Effects Colours Hue Saturation Sepia vignette Retouch Clone Combine Ethical Background Foreground alter font	Key vocabulary: Age restriction Law Private Protect Public
Lessons - Implementation	6 (full class - following NCCE sequence)	6 (full class - code.org bespoke sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	3 (full class - following code.org lesson plan)	6 (full class - following NCCE sequence)	Kapow - 4 lessons
Associated Software - implementation	Web access Chrome Music Lab	Code.org	Micro:bit MakeCode	Audiomass	https://studio.code.org/courses/oceans/units/1/lessons/1 code.org	Paint.NET - Free Software for Digital Photo Editing	na
Associated Hardware - implementation	Chromebooks	Chromebooks	Chromebooks Micro-bits	Chromebooks Headphones microphones	Chromebooks	Chromebooks/Tablet	na
Key activities/events (Learning Journey) - Implementation	*Teacher to provide each pupil with google account details: username and password.* *Teacher to add paintz.app link to google classroom* L1 - Connecting Networks L2 - What is the Internet Made Of? L3 - Sharing Information	*Teacher to create material for pupils to use in google docs* L1 - (L3) Introduction to Online Puzzles (recap) L2 - (L4) Debugging with Laurel L3 - (L7) Events in Bounce L4 - (L11) Loops in Ice Age L5 - (L12) Drawing Shapes	*Teacher to create material for pupils to use in google docs* • L1 - Answering questions • L2 - Data collection • L3 - Logging • L4 - Analysing data • L5 - Data for answers • L6 - Answering my question	*Teacher to create material for pupils to use in google docs* • L1 - Recording Sound • L2 - Editing audio • L3 - Planning a podcast • L4 - Creating a podcast • L5 - Behind the scenes • L6 - Evaluating podcasts	*Teacher to create material for pupils to use in google docs* • L1 - AI in our lives • L2 - Levels 2-4 - Train AI to Clean the Ocean • L3 - Training data and biases and impact on society	*Teacher to create material for pupils to use in google docs* • L1 - Changing digital images • L2 - Recolouring • L3 - Cloning • L4 - Combining • L5 - Creating • L6 - Evaluating	L1 - (L1) Internet safety - age restrictions L2 - (L2) Share aware L3 - (L4) Privacy and secrecy

COMPUTING CURRICULUM MAP 2025-2026

	L4 - What is a website? L5 - Who owns the web? L6 - Can I believe what I read?	with loops. L6 - (L13) Nested Loops in Maze.					L4 - (L5) Consuming information
Assessment - review							
Progression	This unit progresses students' knowledge and understanding of networks from that developed in the Year 3 Connecting Computers unit. In Year 5, they will continue to develop their knowledge and understanding of computing systems and understand how search engines work via the internet and the world wide web.		This unit progresses learners' knowledge and understanding of data and how it can be collected over time to answer questions. Specifically, it builds on the concept of answering questions with data which is first introduced in the KS1 data and information units. The unit also introduces the idea of automatic data collection. Learners are also introduced to data in tables and graphs, knowledge they will build on in the Year 5 unit (flat file databases) and the Year 6 unit (spreadsheets).	This unit progresses students' knowledge and understanding of creating media, by focusing on the recording and editing of sound to produce a podcast. Following this unit, learners will explore combining audio with video in the 'Video editing' unit in Year 5.	This unit introduces learners to the concept of machine learning. It builds on existing knowledge from Y4 about handling data and sets the foundation for further discussions in Y5 about AI.	This unit progresses students' knowledge and understanding of digital photography and using digital devices to create media. Learners will have had some exposure to images and their manipulation through the Teach Computing Digital Photography - Year 2 unit. Following this unit, learners will further develop their image editing skills in Year 5 – Vector drawing.	

COMPUTING CURRICULUM MAP 2025-2026

Y5 Computing Curriculum Map

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2 (AI)	Autumn 1 PSHE
Unit of work from Y1 Teach computing framework	Unit 4 - Data and information - flat file databases Through plugged and unplugged activities, learners will use tools within a database to order and answer questions about data. They will create graphs and charts from their data to help solve problems. They will also use a real-life database to answer a question, and present their work to others.	Unit 2 - Creating media - video production Learners will learn how to create short videos by working in pairs or groups. As they progress through this unit, they will be exposed to topic-based language and develop the skills of capturing, editing, and manipulating video. Learners are guided with step-by-step support to take their idea from conception to completion. At the conclusion of the unit, learners have the opportunity to reflect on and assess their progress by creating a video. Typing skills Learners engage with bite-sized, interactive online lessons to develop their touch typing skills. They further develop these skills throughout the year in our English topics relating to Macbeth and Journey to Jo'burg.	Unit 6 - Programming B - Selection in quizzes Learners will develop their knowledge of 'selection' by revisiting how 'conditions' can be used in programming, and then learning how the 'if… then… else…' structure can be used to select different outcomes depending on whether a condition is 'true' or 'false'. They represent this understanding in algorithms, and then by constructing programs in the Scratch programming environment. They learn how to write programs that ask questions and use selection to control the outcomes based on the answers given. They use this knowledge to design a quiz in response to a given task and implement it as a program. To conclude the unit, learners evaluate their program by identifying how it meets the requirements of the task, the ways they have improved it, and further ways it could be improved.	Unit 3 - Programming A - Selection in physical computing Learners will develop their understanding of physical computing using BBC micro:bits and the MakeCode platform. Learners will be introduced to a microcontroller (Microbit) and learn how to connect and program it to control components (including output devices — LEDs and motors). Learners will use conditions as a means of controlling the flow of actions in a program. Learners will make use of their knowledge of repetition and conditions when introduced to the concept of selection (through the 'if…then…' structure) and write algorithms and programs that utilise this concept. To conclude the unit, learners will design a program to control a motor which they will use in their Sum 2 unit of work in DT - the squashed tomato challenge.	Unit 5 - Creating media – Desktop publishing In this unit, learners start to create vector drawings. They learn how to use different drawing tools to help them create images. Learners recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Learners layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work.	Unit 1 - Computing systems and networks - systems and searching Learners develop their understanding of computer systems and how information is transferred between systems and devices. Learners consider small-scale systems as well as large-scale systems. They explain the input, output, and process aspects of a variety of different real-world systems. Learners discover how information is found on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines.	PSHE Kapow
Key Big Ideas - Intent	Digital literacy Computational thinking Exploration	Creativity Digital literacy Exploration	Computational Thinking Exploration	Computational Thinking Exploration Creativity	Creativity Disciplinary Literacy Exploration	Exploration Computational thinking Safety and healthy habits	Safety and Healthy Habits
Substantive Knowledge - Intent	Learners will understand that computer databases can be used for efficiently handling large amounts of data. They will understand the benefits of a computer-based system as opposed to a paper-based system. They will understand that a computer database can be used to answer questions and to present information effectively.	Learners will understand that video is a visual media format. Learners will understand that because video communicates meaning through a sequence of visual images, storyboards help plan and organise these images to tell a clear story.	Learners will understand how selection can be used in computer programs. They will understand that conditions are used in selection. To understand that selection directs the flow of a program.	Learners will understand that physical computing uses hardware and software together, and that microcontrollers like the Micro:bit can be programmed to control components such as LEDs and motors. Learners will understand that selection in programming (using structures such as 'if…then…') allows a program to make decisions based on conditions, and that this can be applied to control the behaviour of physical systems. Learners will understand that programmers follow a design process — including planning, testing, debugging, and refining — to develop reliable	Learners will understand that vector drawings are made up of shapes and lines, and each element is called an object. They will understand that objects in vector drawings are built on layers, which can be ordered and rearranged to create effective images. They will understand that tools such as shape, line, resize, rotate, duplicate, and group allow drawings to be created, developed, and refined.	Learners will understand that computer systems are made up of interconnected components that work together to perform functions, including input, process, and output. They will understand that search engines use indexing, web crawlers, and ranking rules to organise and present information from the World Wide Web. They will understand that search results can be influenced by the searcher's choices, the search engine's rules, and the strategies of webpage creators	Learners will understand that friendships, acquaintances, and online contacts differ in the levels of trust, closeness, and knowledge of each other. Learners will understand that the information shared online can spread widely, remain permanently accessible, and may have consequences for themselves or

COMPUTING CURRICULUM MAP 2025-2026

				programs, and that these stages are essential when creating and improving physical computing projects.			others. Learners will understand that consent is required before sharing personal information, images, or content, and that consent can be withdrawn but may be difficult to fully remove online.
Declarative Knowledge - Intent	Learners will know that a database consists of 'records', and that each record contains 'fields'. They will know that data can be grouped using chosen values. They will know that computer programs can be used to efficiently compare data visually. They will know that data presented in an efficient way is a valuable communication tool.	Learners will know what to do if they see any content online that makes me feel uncomfortable. They know that different filming techniques can be used to suit a given purpose. They will know that using different camera angles when recording video produces different effects.	Learners will know that repetition is used in selection to ensure that conditions are repeatedly checked They will know that a conditional statement connects a condition to an outcome.	Learners will know what an infinite loop does. They will know that a loop can stop when a condition is met. They will know that a condition is either true or false. They will know that a loop can be used to repeatedly check whether a condition has been met. They will know that a condition being met can start an action.	Learners will know that each new shape or line in a vector drawing creates an object. They will know that vector drawings are different from freehand or pixel-based drawings. They will know that alignment grids and resize handles can improve the consistency and accuracy of drawings. They will know that grouped objects can be treated as one unit but remain made up of multiple individual objects.	Learners will know that a computer system can include both human and digital elements working together. They will know that search engines retrieve information from their index. They will know that search results are ranked based on specific criteria determined by search engines. They will know that the order and content of search results may be influenced by adverts, optimisation, and user choices.	Learners will know that sharing sensitive information online (such as addresses, private photos, or personal opinions) can put themselves or others at risk. Learners will know that respectful behaviour is just as important online as it is in face-to-face relationships. Learners will know that reporting tools and trusted adults can help them if they feel unsafe or their consent has not been respected online.
Procedural Knowledge and skills - Intent	Learners will know how to answer questions by grouping and then sorting data. Learners will be able to create a database using cards. They will be able to explain how information can be recorded. They will be able to order, sort, and group data cards. They will be able to explain what a field and a record is in a database. They will be able to navigate a flat-file database to compare different views of information.	Learners will know how to store, retrieve, and export a recording to a computer. Learners will be able to explain what makes a video effective. They will be able to identify features of videos. They will be able to compare features between different videos. They will be able to use a digital device to record video, including audio. They will be able to identify and find features on a digital video recording device.	Learners will be able to identify conditions in a program. They will be able to modify a condition in a program. They will be able to use selection in an infinite loop to check a condition. They will be able to identify the condition and outcomes in an 'if… then… else…' statement. They will be able to explain that program flow can branch according to a condition.	Learners will be able to program a microcontroller to make an LED array switch on. They will be able to use an infinite loop in their program to control an output. They will be able to connect an output component to a microcontroller. They will be able to use a count-controlled loop to control outputs. They will be able to design sequences that use count-controlled loops.	Learners will know how to use shape and line tools to create vector images. They will know how to move, resize, and rotate objects. They will know how to duplicate single and multiple objects. They will know how to apply colour and modify objects to change their appearance. They will know how to use zoom, alignment grids, and resize handles to improve detail and consistency.	Learners will know how to make use of a web search to find specific information. Know how to refine a web search to improve accuracy. Know how to compare results from different search engines. Know how to recognise trustworthy websites. Know how to explain why search engines are necessary and describe the role of web crawlers in creating an index. Know how to identify ways search results can be	Learners will know how to decide what information is safe or unsafe to share with friends, acquaintances, and online contacts. Learners will know how to check for consent before sharing information, images, or content involving others. Learners will know

COMPUTING CURRICULUM MAP 2025-2026

	They will be able to select a field to sort data by to answer a given question. They will be able to group information using a database. They will be able to combine grouping and sorting to answer specific questions. They will be able to choose which field and value are required to answer a given question. They will be able to use 'AND' and 'OR' functions to refine data selection. They will be able to choose multiple criteria to answer a given question. They will be able to select an appropriate chart to visually compare data. They will be able to refine a chart by selecting a particular filter. They will be able to present findings to a group.	They will be able to capture video using a range of filming techniques. They will be able to review the effectiveness of a video for a given purpose. They will be able to use a storyboard for a video and to decide which filming techniques to use. They will be able to create and save video content. To identify that video can be improved through reshooting and editing They will be able to explain how to improve a video by reshooting and editing They will be able to select the correct tools to make edits to an existing video.	They will be able to design the flow of a program that contains 'if… then… else…' They will be able to demonstrate that a condition can direct program flow in one of two ways. They will be able to design a program for a given task that uses selection. They will be able to identify the outcome of user input in an algorithm. They will be able to test, debug and evaluate their program, identifying ways it could be further improved.	They will be able to create a simple circuit and connect it to a microcontroller. They will be able to design a conditional loop. They will be able to program a microcontroller to respond to an input. They will be able to identify a condition and an action in a project. They will be able to use selection (an 'if…then…' statement) to direct the flow of a program. They will be able to create a program that controls a physical computing project.	They will know how to create, order, and rearrange layers. They will know how to group and ungroup objects to simplify editing. They will know how to compare vector drawings with freehand paint drawings. They will know how to apply their drawing skills to create a purposeful design (e.g., a logo). Learners will be able to create a vector drawing using a combination of shapes. They will be able to develop increasingly complex images by layering and grouping objects. They will be able to reuse and adapt objects to refine a drawing. They will be able to produce a vector drawing for a specific purpose and explain their design choices. They will be able to reflect on and evaluate their own digital artwork, considering effectiveness and accuracy.	influenced and explain limitations of search engines. Know how to explain how to keep personal information safe online. Be able to identify and explain tasks managed by computer systems in real life. Be able to conduct web searches using both search engines and the address bar. Be able to break down and follow the steps needed to find things online. Be able to emulate web crawlers by creating and organising an index. Be able to evaluate search results and identify reliable sources of information. Be able to describe how content creators can optimise sites for search engines. Be able to explain the benefits and limitations of search technologies. Be able to create and use strong passwords to protect personal information online.	how to use reporting tools on websites and apps to flag inappropriate or unsafe behaviour. Learners will know how to seek help from a trusted adult when online safety is at risk. Learners will be able to distinguish between a friend, an acquaintance, and someone they meet online. Learners will be able to explain the risks of sharing different types of personal information in different contexts (friends, acquaintances, online). Learners will be able to apply decision-making steps before sending a message or sharing information online. Learners will be able to demonstrate respectful communication and behaviour in online interactions. Learners will be able to report and respond appropriately if their information is misused or if they experience unsafe behaviour online.
Disciplinary vocabulary Add icons	Key vocabulary: Database Data Information Record Field Sort	Key vocabulary: Video Audio Camera talking head Panning close up	Key vocabulary: Selection Condition True False count-controlled loop conditional statement	Key vocabulary: Microcontroller Micro:bit Programming environment MakeCode Input output	Key vocabulary: Vector drawing tools Object Toolbar Move Resize Colour	Key vocabulary: System Component Input Process Output Network	Key vocabulary: Friend Acquaintance Online Relationship Consent Privacy

COMPUTING CURRICULUM MAP 2025-2026

	Order Group Search Value Criteria Graph Chart Axis Compare Filter Presentation	Video camera Microphone Lens mid range long shot moving subject side by side high angle low angle normal angle Static camera Zoom Pan Tilt Storyboard Filming Review Import Split Trim Clip Edit Reshoot Delete Reorder Export Evaluate share	Algorithm Program Debug Task Design Input Outcomes Implement Test Run set-up	Components Connection infinite loop Motor count-controlled loop Switch LED crocodile clips Connect battery box Program Selection Condition Action Repetition debug	Rotate duplicate/copy Zoom Select Align Modify Copy Paste Group Ungroup Duplicate Reuse Reflection Graphic designer	Internet World Wide Web Search engine Index Web crawler Ranking Algorithm Optimisation (SEO) Trustworthy	Respect Share Information Personal Safe Unsafe Report Trusted adult Behaviour
Lessons - Implementation	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class -structured to mirror NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	Kapow - 2 lessons
Associated Software - implementation	J2e database	iMovie	Scratch	MakeCode and motor extension.	Google drawings	Multiple search engines	na
Associated Hardware - implementation	Chromebooks	Tablets	Chromebooks	Chromebooks	Chromebooks	Chromebooks	na
Key activities/events (Learning Journey) - Implementation	*Teacher to create material for pupils to use* L1 - Creating a paper-based database L2 - Computer databases L3 - Using a database L4 - Using search tools L5 - Comparing data visually L6 - Databases in real life	*Teacher to create material for pupils to use in google docs* L1 - What is video? L2 - Filming techniques • L3 - Using a storyboard L4 - Planning a video L5 - Importing and editing video L6 - Video evaluation	*Teacher to create material for pupils to use in google docs* • L1 - Exploring conditions • L2 - Selecting outcomes • L3 - Asking questions • L4 - Designing a quiz • L5 - Testing a quiz • L6 - Evaluating a quiz	*Teacher to create material for pupils to use in google docs* • L1 - Meet your micro-bit • L2 - Namebadge • L3 - Saving Sea turtles • L4 - Touch timer • L5 - Pressure switch alarm • L6 - Programming motors - squashed tomato challenge.	*Teacher to create material for pupils to use in google docs* • L1 - The drawing tools • L2 - Creating images • L3 - Effective drawings • L4 - Layers and objects • L5 - Manipulating objects • L6 - Becoming a graphic designer	*Teacher to create material for pupils to use in google docs* • L1 - Systems • L2 - Computer systems and us • L3 - Searching the web • L4 - Selecting search results • L5 - How search results are ranked • L6 - How search results are influenced (incl. AI)	L1 - Online friendships L2 - Staying safe online
Assessment - review		•					
Progression	This unit progresses learners' knowledge and understanding of why and how information might be stored in a database and looks at how tools within a database can help us to answer questions about our data. It moves on to demonstrate how a database can help us display data visually, and how real-life databases can be used to help us solve problems.	This unit progresses learners' knowledge and understanding of creating media by guiding them systematically through the process involved in creating a video. The unit builds on the Year 4 Photo editing unit where composition is introduced and the Year 3 unit 'Stop-frame animation' where learners explored some of the features of video production. By the end of this unit, learners will have	This unit assumes that learners will have prior experience of programming using block-based construction (e.g. Scratch), understand the concepts of 'sequence' (Year 3 units: Sequencing Sounds and Events and actions in programs) and 'repetition' (Year 4 units: Repetition in shapes and Repetition in games), and have some	This unit assumes that learners will have prior experience of programming using a block-based language (e.g. Scratch and code.org) and understand the concepts of sequence and repetition. The National Centre for Computing Education Key Stage 1 units focus on floor robots and ScratchJr, however, experience of other languages or environments may also be	This unit progresses learners' knowledge and understanding of digital painting and has some links to the Year 3 'Creating media – Desktop publishing' unit, in which learners used digital images. In this Year 5 unit, learners create images that could be used in desktop publishing documents.	This unit progresses learners' knowledge and understanding of computing systems. This unit progresses students' knowledge and understanding of the internet from that developed in the Year 4 The Internet unit In Year 6, they will continue to develop their knowledge and understanding of the internet, looking at how data is transferred and how the	In Y4, pupils learned that age restrictions are designed to protect us. The benefits and risks of sharing material online. What is meant by 'privacy'. The difference between secrets and surprises.

COMPUTING CURRICULUM MAP 2025-2026

		developed the skills required to plan, record, edit, and share a video.	experience of using 'selection'.	useful.		internet facilitates communication and collaboration online.	That not all information on search engines is valuable or reliable. This unit builds on these themes.

COMPUTING CURRICULUM MAP 2025-2026

Y6 Computing Curriculum Map

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Autumn 1 PSHE
Unit of work from Y1 Teach computing framework *(key information for curriculum bulletins)*	Unit 3 - Programming A - Variables in games This unit explores the concept of variables in programming through games in Scratch. Learners find out what variables are and relate them to real-world examples of values that can be set and changed. Then they use and experiment with variables to create a simulation of a scoreboard. Finally, learners apply their knowledge of variables and design to improve their games in Scratch. Unit 6 - Programming B - Sensing movement This unit is the final KS2 programming unit and brings together elements of all the four programming constructs: sequence (Y3), repetition (Y4), selection (Y5), and variables (introduced in Y6 – 'Programming A'). Pupils use all of these constructs in a different, but familiar environment, while also utilising a physical device — the micro:bit. Over the course of the unit pupils will apply their knowledge of the programming constructs and generate their own design to create a micro:bit-based step counter.	Unit 4 - Data and information - Introduction to Spreadsheets This unit introduces the learners to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Learners will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Learners will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them. Learners will use spreadsheets to plan an event and answer questions. Finally, learners will create charts, and evaluate their results in comparison to questions asked.	Unit 5 - Creating media – 3D Modelling Learners will develop their knowledge and understanding of using a computer to produce 3D models. Learners will initially familiarise themselves with working in a 3D space, moving, resizing, and duplicating objects. They will then experiment with creating hollow objects. Finally, learners will examine the benefits of grouping and ungrouping 3D objects, then go on to plan, develop, and evaluate their own 3D model of a building.	Unit 1- Communication and collaboration Through plugged and unplugged activities, learners explore how data is transferred over the internet. Learners initially focus on addressing, before they move on to the makeup and structure of data packets. Learners then look at how the internet facilitates online communication and collaboration; they complete shared projects online and evaluate different methods of communication. Finally, they learn how to communicate responsibly by considering what should and should not be shared on the internet.	Unit 2 - Creating Media - web page creation Learners will be introduced to creating websites for a chosen purpose. Learners identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process, learners pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.	Research task Using their multimedia skills , pupils put together a factual booklet on a subject of their choice.	Online Safety - PSHE Kapow
Key Big Ideas - Intent	Computational thinking Creativity Exploration	Digital literacy Computational thinking	Exploration Creativity Computational thinking	• Exploration • Digital literacy • Safety and healthy habits	• Creativity • Digital literacy • Exploration	Creativity Exploration	Safety and Healthy Habits
Substantive Knowledge - Intent	Unit 3. Learners will understand that a variable is a placeholder in a program that stores a single value. They will understand that variables are fundamental to programming because they allow programs to track, store, and update relevant information. Unit 6. Learners will understand	Learners will understand that spreadsheets are digital tools used to organise, analyse, and present data in structured ways. They will understand that formatting and structuring data correctly supports accurate calculations and clear communication of information. They will understand that	Learners will understand 3D modelling allows objects to be created, modified, and visualised in three dimensions using computer software. They will understand that 3D modelling has real-world applications, such as in architecture and design, where models are planned, developed, and evaluated	Learners will understand that data is transferred across the internet using agreed rules and addressing systems. They will understand that all information sent over the internet, including text, images, video, and audio, is broken down into data packets. They will understand that the internet provides opportunities	Learners will understand that websites are created with specific structures, layouts, and navigation paths to support usability and purpose. They will understand that copyright and fair use determine how digital media can be used legally and responsibly online. They will understand that the	Learners will understand that digital literacy skills can be employed to communicate a narrative and facilitate learning.	Learners will understand the potential impact of technology on physical and mental health. They will understand that not all information published online is factually accurate.

COMPUTING CURRICULUM MAP 2025-2026

	that programs use sequence, selection, repetition, and variables together to control devices and solve problems. They will understand that sensors can be used as inputs to update variables and influence the flow of a program. They will understand that careful design, testing, and debugging are essential stages in creating reliable programs that work on physical devices.	formulas and functions allow spreadsheets to produce calculated data, which can be used to solve problems and answer questions.	before being constructed.	for communication and collaboration but requires responsible use.	design and presentation of a website affect user experience.		
Declarative Knowledge - Intent	Unit 3. Learners will know that variables can hold numbers or letters (strings) and are uniquely identified by a name. They will know that when the value of a variable is updated, the previous value is replaced. They will know that variables can be set, changed, and used by programs in different parts of the code. They will know that programs can be improved by adding, modifying, and reusing variables in creative ways. Unit 6. Learners will know that a micro:bit is an input, process, output device that can be programmed. They will know that selection (if, then, else) statements can control the flow of a program. They will know that a variable's value does not change when it is checked, only when it is updated. They will know that the order of conditions in selection statements affects the outcome of a program.	Learners will know that data can be organised into columns and rows to form a data set. Learners will know that different data types (e.g. numbers, text, dates) serve different purposes within a spreadsheet. Learners will know that formulas must begin with an equals sign and use specific symbols for operations (e.g. * for multiply). Learners will know that tables and charts are different ways to present and interpret data depending on the question being answered.	Learners will know that objects can be resized, moved, and rotated in three dimensions. They will know that placeholders can be used to create holes or hollow spaces within 3D objects. They will know that grouping and ungrouping objects allow for easier manipulation of complex models. They will know that architects and designers use 3D modelling to communicate ideas and test designs.	Learners will know that computers use IP addresses and DNS to locate and access websites. They will know that data packets are the fundamental units of information transfer online. They will know that the internet enables different ways of communicating and collaborating, both publicly and privately. They will know that not all information should be shared online and that inappropriate content can be reported.	Learners will know that websites are written in HTML, though website builders like Google Sites allow users to design without coding. Learners will know that web pages often include text, images, and hyperlinks, and must be structured logically for ease of navigation. Learners will know that copyright-free images and content should be used to respect ownership and avoid infringement.	Learners will know that the skills they have learnt in computing throughout their time at primary school will be usefully deployed at secondary school and beyond.	Learners will know that developers design technology to make it as engaging as possible. They will know that some individuals will either deliberately or accidentally publish information online that is inaccurate.
Procedural Knowledge and skills - Intent	Unit 3. Learners will know how to create, name, and update variables in Scratch projects. They will know how to decide where in a program to change or use a variable. They will know how to use events in a program to set or modify variables.	Learners will know how to collect and organise data into a suitable structure for a spreadsheet. They will know how to format cells appropriately depending on the type of data.	In the digital environment used in class, learners will know how to add, resize, move, lift, and lower 3D objects. vTHey will know how to view 3D models from different perspectives to check accuracy.	Learners will know how to recognise and use internet addresses (IP and DNS) to access online content. They will know how to identify and explain the main parts of a data packet.	Learners will know how to explore and review existing websites to evaluate their structure and media content. They will know how to plan the features and layout of a web page to suit a specific purpose. They will know how to search for, select, and reference	Learners will know how to use different applications to support them in their research and communication of findings. Learners will be able to present their research findings through a multimedia presentation.	Learners will know how to check if something is true. Learners will be able to explain the pressures the use of technology can bring. They will be able to explain

COMPUTING CURRICULUM MAP 2025-2026

	They will know how to plan a game design by creating sprites, backgrounds, and algorithms. They will know how to implement design ideas in Scratch by coding and testing with variables. They will know how to add additional variables to extend or enhance a project. Learners will be able to explain what a variable is and give real-world and programming examples. They will be able to create and manipulate variables in Scratch (e.g., scoring systems, timers). They will be able to modify existing games by altering variable values and functions. They will be able to apply the Use–Modify–Create model to develop programming projects. They will be able to design and code a complete game, including artwork, algorithms, and variables. They will be able to test and debug code that uses variables to ensure functionality. They will be able to improve a game by adding or refining variables and design elements. They will be able to evaluate their own and others' games, identifying improvements and explaining design choices. Unit 6. Learners will know how to apply programming knowledge in the MakeCode environment. They will know how to create, test, and transfer programs to the micro:bit. They will know how to use variables in if, then, else statements to direct program flow. They will know how to update variables using user inputs (buttons, movement sensors).	They will know how to construct and apply formulas using cell references. They will know how to use operations (addition, subtraction, multiplication, division) in formulas. They will know how to apply formulas to multiple cells by duplicating them. They will know how to create and use formulas that include a range of cells. They will know how to create and present data using tables and charts. Learners will be able to enter, edit, and format data in a spreadsheet. They will be able to select appropriate cell formats (e.g. number, currency, date). They will be able to build and duplicate formulas to perform calculations efficiently. They will be able to organise data logically to reduce errors and improve usability. They will be able to produce and interpret charts to display data clearly. They will be able to choose whether a table or chart best communicates information. They will be able to evaluate and explain the effectiveness of different data presentation methods.	They will know how to rotate and duplicate objects. They will know how to group and ungroup objects to manipulate multiple shapes at once. They will know how to modify a model to improve accuracy, practicality, or design quality. Learners will be able to construct and combine 3D shapes to create new models. They will be able to analyse and deconstruct models to identify the shapes they are made from. They will be able to plan and create purposeful 3D designs. They will be able to evaluate their own and others' 3D models, suggesting improvements. They will be able to accurately resize and position 3D objects. They will be able to use digital tools to communicate ideas in a design context, as architects and designers do.	They will know how to access and contribute to shared files stored online. They will know how to use and modify digital content created by others responsibly. They will know how to compare and evaluate different methods of online communication. They will know how to decide which communication method is most appropriate for a particular purpose. They will know how to categorise forms of online communication according to safety and privacy considerations. They will know how to report inappropriate content encountered online. Learners will be able to explain how computers use addresses to communicate. They will be able to demonstrate how data is transferred across the internet in packets. They will be able to create and edit collaborative online documents or presentations. They will be able to work collaboratively on a shared project using online tools. They will be able to select and justify appropriate communication methods for specific tasks. They will be able to explain when it is and is not safe to share personal information online. They will be able to apply safe, respectful, and responsible behaviour when communicating online.	copyright-free images responsibly. They will know how to add and organise content (text, images, media) to create a web page. They will know how to preview and evaluate how a web page looks on different devices and edit accordingly. THey will know how to plan and create a navigation path using multiple linked pages. They will know how to create and use hyperlinks to connect internal pages and external content. Learners will be able to Identify and explain common features of web pages. They will be able to sketch and design a logical layout for a web page. They will be able to demonstrate responsible online behaviour by applying copyright and fair use principles. They will be able to build and edit a functioning website using a site-building tool such as Google Sites. They will be able to test and refine the appearance and functionality of a website across different devices. They will be able to create multiple interlinked web pages with clear navigation. They will be able to apply effective hyperlinking strategies, including linking to external sources. They will be able to evaluate the user experience of their own and others' websites.		strategies to reduce the negative impact of technology on health. They will be able to recognise some signs that a news story is fake.

COMPUTING CURRICULUM MAP 2025-2026

	They will know how to use operands (e.g. <, >, =) within conditional statements. They will know how to debug programs using emulator and device testing. Learners will be able to write and adapt code using sequence, repetition, selection, and variables. They will be able to run and test programs on an emulator before transferring to a micro:bit. They will be able to use physical inputs (buttons, motion, compass) to influence program behaviour. They will be able to compare variables with values to determine program outcomes. They will be able to modify existing programs to achieve new purposes. They will be able to create a program based on a design template with increasing independence. They will be able to build, test, and refine a step counter program using the micro:bit.						
Disciplinary vocabulary For Widgit sheets, know ledge organisers and displays	Unit 3. Key vocabulary: Variable Change Name Value Set Design Event Algorithm Code Task Artwork Program Project Test Debug Prototype Improve Evaluate Share Unit 6. Key vocabulary: Micro:bit MakeCode Input	Key vocabulary: Data Collecting Table Structure Spreadsheet Cell cell reference data item Format Formula Calculation Input Output Operation Range Duplicate Sigma Chart Results Software	Key vocabulary: 2D 3D Shapes Select Move Perspective View Handles Resize Lift Lower Recolour Rotate Duplicate Group Cylinder Placeholder Hollow Construct Evaluate Modify	Key vocabulary: Communication Protocol Data Address Internet Protocol (IP) Domain Name Server (DNS) Packet Header Data payload Website web page web address Router Routing web browser Reuse Remix Collaboration Public Private One-way Two-way One-to-one One-to-many	Key vocabulary: Website Web page Browser Media Hypertext Markup Language (HTML) Logo Layout Header Media Purpose Copyright Fair use Home page Preview Device Google Sites Navigation Hyperlink Subpage External link Embed	Key vocabulary Research Research objective Presentation Multimedia communication	Key vocabulary: age limit mental health persuasive design physical health pressure Restrictions authenticity bias clickbait credibility fake news featured snippets reliability reliable sources targeted advertising Validity anonymous bullying cyberbullying identity internet trolling Respect Cyberbullying

COMPUTING CURRICULUM MAP 2025-2026

	Process Output USB Trace Selection Condition If, then, else Variable Random Input Sensing Accelermoter Variable Compass Direction Navigation Design Step Step-counter Plan, create, code, test, debug						
Lessons - Implementation	Unit 3. 6 (full class - following NCCE sequence) Uni 6. 6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)	6 (full class - following NCCE sequence)		Kapow - 3 lessons
Associated Softw are - implementation	Unit 3. Scratch • Unit 6. MakeCode • BBC micro:bit classroom	Google sheets	TinkerCAD	• Google slides	Google Sites	Google slides	na
Associated Hardw are - implementation	Chromebooks BBC micro:bits	Chromebooks	Chromebooks	Chromebooks	Chromebooks / tablets	Chromebook	na
Key activities/events (Learning Journey) - Implementation	*Unit 3. Teacher to create material for pupils to use in google docs* L1 - Introducing variables L2 - Variables in programming L3 - Improving a game L4 - Becoming a games designer L5 - Design to code L6 - Improving and sharing *Unit 6. Teacher to create material for pupils to use in google docs* L1 - The micro:bit L2 - Go with the flow, fortune telling L3 - Sensing inputs L4 - Finding your way - making a compass L5 - Designing a step-counter L6 - Making a step counter	*Teacher to create material for pupils to use in google docs* • L1 - Collecting data • L2 - Formatting a spreadsheet • L3 - What's the formula? • L4 - Calculate and duplicate • L5 - Event planning • L6 - Presenting data	*Teacher to create material for pupils to use in google docs* • L1 - Introduction to 3D modelling • L2 - Modifying 3D objects • L3 - Make your own name badge • L4 - Making a desk tidy • L5 - Planning a 3D model • L6 - Make your own 3D model	*Teacher to provide each pupil with google account details: username and password. Teacher to add paintz.app link to google classroom* • L1 - Internet addresses • L2 - Data packets • L3 - Working together • L4 - Shared working • L5 - How we communicate • L6 - Communicating responsibly	*Teacher to create material for pupils to use in google docs* • L1 - What makes a good website? • L2 - Becoming a web designer • L3 - Copyright or copyWRONG? • L4 - How does it look? • L5 - Follow the breadcrumbs • L6 - Think before you link!	*Teacher to create material for pupils to use in google docs*	L1 - L4 Y6 Hleath and Wellbeing - The impact of technology on health L2 - L2 Y6 Safety and the changing body - becoming critical consumers L3 - L3 Y6 Safety and the changing body - social media
Assessment - review						•	
Progression	Unit 3. Learners have experience of programming using block-based construction	This unit progresses students' knowledge and understanding of data and teaches them how to	This unit progresses students' knowledge and understanding of creating 3D graphics using	This unit progresses students' knowledge and understanding of computer systems and	This unit progresses students' knowledge and understanding from a variety of lessons	This unit progresses students' knowledge and understanding of using different modes of	

COMPUTING CURRICULUM MAP 2025-2026

	(Scratch and Code.org), understand the concepts of 'sequence' (Y3 units: Sequencing Sounds and Events and actions in programs), 'repetition' (Y4 units: Repetition in shapes and Repetition in games), and 'selection' (Y5 units: Selection in Physical Computing and Selection in quizzes). Unit 6. Learners already have experience of using BBC micro:bits in Y4 and Y5. This unit develops their understanding of how programmable devices can be used in different ways and builds on pupils' understanding of sequence, repetition and selection independently within programming.	organise and modify data within spreadsheets. Specifically, learners will have experienced data in tables and charts in the Y4 Data Logging unit and Y5 Branching Database unit.	a computer. Prior to undertaking this unit, learners have worked with 2D graphics applications in Y1, Y3 and Y5.	networks developed in the Year 5 Systems and Searching unit, looking at how data is transferred and how the internet facilitates communication and collaboration online.	from the Teach Computing, across different strands: digital writing, digital painting, desktop publishing, photo editing, and vector drawing.	research and creating multimedia presentations. It consolidates the different multimedia and digital literacy skills learnt throughout their time at primary school in readiness for using similar tools as they transition to secondary school.	

COMPUTING CURRICULUM MAP 2025-2026

Subject Content

Key stage 1

Pupils should be taught to:

- 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
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- recognise common uses of information technology beyond school
- 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.

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.

Useful Links:

https://www.gov.uk/government/publications/education-for-a-connected-world