



Progression of Knowledge and Skills – Computing

These principles and features characterise this approach and convey how our curriculum is implemented:

Intent	Implementation	Impact
At Westbury Infant School, the computing curriculum is designed to give every child—regardless of background, starting point, or need—a strong, developmentally appropriate foundation in digital literacy, computational thinking and online safety. We aim to nurture confident, curious learners who can use technology creatively, safely and purposefully. Our intent is that: • Children understand that technology is part of everyday life and can use it to explore, create, and solve problems. • Pupils develop early computational thinking skills, such as sequencing, pattern-spotting and logical reasoning, through both unplugged and digital activities. • Online safety underpins all learning, ensuring children recognise how to use technology safely, who to talk to if they feel worried, and how to behave respectfully online. • Learning is fully inclusive, ensuring that disadvantaged and SEND pupils achieve well through tailored support, scaffolded tasks and accessible resources. • Children leave Year 2 with the confidence and core knowledge they need to access the KS2 computing curriculum successfully.	Progressive Curriculum Structure: Computing is taught through a well-sequenced curriculum from EYFS to the end of KS1, building knowledge in small, manageable steps. Concepts such as algorithms, simple programming, digital content creation and understanding technology are introduced gradually and revisited regularly. Blended Approach: Children learn through a mixture of unplugged activities (real-world problem-solving, sequencing games, role-play) and hands-on use of age-appropriate devices such as tablets, simple robots (Bee-Bots) and interactive whiteboards. Practical, Creative Learning: Each unit includes opportunities for children to create digital content (pictures, text, audio, simple animations) that allow them to apply new skills in meaningful contexts. Embedded Online Safety: Online safety is taught explicitly in PSHE and computing lessons as well as reinforced continuously across the curriculum. Pupils learn about keeping personal information private, recognising safe and unsafe choices, and seeking help from trusted adults. Staff Expertise: Clear guidance and progression documents support staff in delivering high-quality lessons. Inclusive Practice: Lessons are adapted so that all children can access learning, including through adult support, visual prompts, simplified commands, and alternative input tools where needed. Cross-Curricular Links: Computing supports learning across the curriculum—for example using digital tools in English, maths and the creative arts—to strengthen digital literacy and embed skills more deeply.	Secure Early Knowledge: By the end of Year 2, pupils confidently use simple digital tools to create, store and retrieve content; understand what algorithms are; and can follow or create a short sequence of instructions using digital devices or programmable toys. Emerging Problem-Solvers: Children show early computational thinking skills, including sequencing, predicting outcomes and correcting simple errors (debugging). They demonstrate resilience when testing ideas and refining their work. Safe and Responsible Users: Pupils can talk about how to stay safe online, know what information should be kept private, and understand the importance of telling a trusted adult if something worries them. Positive Attitudes to Technology: Children develop curiosity and confidence when exploring digital tools. They see technology as a creative, helpful and safe part of everyday life. Inclusive Outcomes: Assessment (through observation, discussion, and work products) shows that all groups of pupils—including disadvantaged and SEND learners—make strong progress from their starting points. Prepared for KS2: Pupils move into the next stage of their education with secure foundational knowledge, ready to build on their skills in programming, digital literacy and computer science.

Progression of Knowledge and Skills	<u>EYFS</u> In Reception, I am an early information technician who: • Explores digital devices within the context of my play. • Knows how to stay safe when using an app on a digital device. • Enjoys exploring different digital devices that are age appropriate, such as BeeBots	<u>Key Stage 1</u> In key stage 1, I will be an information technician who: • Understands that they have a responsibility to stay safe online • Confidently uses a range of IT for purpose • Can spot problems and come up with a solution
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Assessment and Monitoring

What you will see in our classrooms:

- * Floor books to show consistency of teaching.
- * Teachers moving around the room, asking questions, assessing, providing support etc and using musical language appropriately.
- * Sticky Sticks to be used consistently when Computing is taught.
- * Teacher led interviews to assess what children have been learning.

EYFS

Technology is embedded across the Reception curriculum rather than taught as a discrete subject. It is used purposefully where it enhances learning, communication, creativity or enquiry. Technology is one of many ways to support learning and does not replace rich first-hand experiences, play, talk, exploration or interaction with others.

How Technology Supports the Curriculum

Curriculum Area	How technology may support existing learning	Appropriate Reception experiences
Communication & Language	Communication, listening and sharing experiences.	Talk about photographs or recordings; listen back to recorded speech, stories or rhymes; use images as prompts for discussion, recall and vocabulary.
PSED	Technology may support relationships, routines and safe choices where this arises naturally.	Use photographs to revisit shared experiences; begin to understand that adults help children use technology safely and appropriately.
Physical Development	Technology has a limited supporting role; direct physical experience remains primary.	Follow movement or music from an appropriate digital source; use photographs or recordings to revisit physical experiences where this adds value.
Literacy	Technology may support oral composition, storytelling, reading experiences and purposeful communication.	Listen to stories or rhymes; use photographs to support recounting or storytelling; record children's oral ideas; encounter adults using technology for genuine writing or communication purposes.
Mathematics	Technology may help children record, notice or revisit mathematical ideas where it genuinely adds value.	Photograph patterns, constructions, shapes or mathematical discoveries; use simple technology where it supports counting, pattern or spatial exploration. Manipulatives and first-hand mathematics remain central.
Understanding the World	Technology can support observation, enquiry, recording and finding things out.	Take photographs for a purpose; record change over time; look closely at photographs or images; use appropriate digital resources with an adult to find something out; notice technology used in everyday life.
Expressive Arts & Design	Technology can be one of several tools for creating, recording and communicating ideas.	Take photographs; record sound, music, movement or performance; explore simple digital image or sound creation where appropriate, alongside physical materials and first-hand creative experiences.

Implementation Principles

Purposeful	Technology is selected because it supports a curriculum purpose, not simply because it is available.
Proportionate	Technology is one possible tool. Children continue to learn through books, talk, objects, movement, construction, creative materials, the outdoors and direct experience.
Embedded	Technology supports learning within curriculum areas and provision; it is not taught through separate Reception Technology lessons or Development Points.
Safe and guided	Children use agreed technology with adult guidance, handle equipment appropriately and tell an adult if they see or hear something that worries or confuses them.

Key Stage 1 – Knowledge – Cycle 1

Units of Work	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	My online life - I know that technology is used in lots of places, not just at school. - I know not to share my personal information online. - I know that if something online makes me upset or worried, I should tell an adult I trust.	What is a computer? - I know I can use technology to make, save, and share my work. - I know that computers help people do their jobs. - I know how to use the internet safely and kindly.	Digital Painting - I know I can use different tools on the computer to create pictures, text, or music. - I know I can use technology to make, save, and share my work. - I know how to use the internet safely and kindly.	Moving a Robot - I know that an algorithm is a set of instructions that tells a computer what to do. - I know I can make my own simple program. - I know I can think carefully to guess what a program will do before I run it.	Grouping Data - I know I can use technology to make, save, and share my work. - I know that technology is used in lots of places, not just at school. - I know how to use the internet safely and kindly.	iPad exploration and skills - I know that if my program doesn't work, I can find and fix the mistake – that's called debugging. - I know I can explain what my program does and why. - I know how to be respectful to others when I use technology.
	<u>Vocabulary</u> Online – Using the internet on a computer, tablet, or phone. Safety – Being careful so you don't get hurt or into trouble. Personal information – Important details about you (like your name, address, or school) that should be kept private.	<u>Vocabulary</u> Computer – A machine that helps you do things like play games, write, or learn. Technology – Tools or machines that help us do things more easily (like computers, tablets, and robots). Program – A set of instructions that tells a computer what to do.	<u>Vocabulary</u> Digital – Something that uses a computer, tablet, or phone. Technique – A way of doing something. Tools – Things we use to help us do a job. Recreate – To make something again or copy it.	<u>Vocabulary</u> Command – A clear order telling something or someone what to do. Direction – The way something moves or faces, like up, down, left or right. Sequence – A set of steps in a specific order. Instruction – Information that tells you how to do something or what to do next.	<u>Vocabulary</u> Groups – A number of things or people put together because they are similar or belong together. Compare – To look at two or more things to see what is the same and what is different.	<u>Vocabulary</u> Animation – Pictures or drawings that move to tell a story or show action. E-book – A book you read on a computer, tablet, or phone. Insert – To put something into another thing (like adding a picture into a document).

Key Stage 1 – Knowledge – Cycle 2

Units of Work	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	IT around us - I know that technology is used in lots of places, not just at school. - I know not to share my personal information online. - I know that if something online makes me upset or worried, I should tell an adult I trust.	Digital Photography - I know how to find, open, and change my digital files. - I know I can use different tools to create pictures. - I know how to be respectful to others when I use technology.	Robot Algorithms - I know that I can make a computer do something by giving it the right instructions. - I know it's okay to make mistakes because that helps me learn how to make my program better. - I know I can explain what my program does and why.	Pictograms - I know I can use technology to make, save, and share my work. - I know that technology is used in lots of places, not just at school. - I know how to be respectful to others when I use technology.	Digital Music - I know I can use different tools on the computer to create pictures, text, or music. - I know that technology is used in lots of places, not just at school. - I know how to use the internet safely and kindly.	Programming Quizzes - I know that computers follow instructions carefully and exactly. - I know I can make my own simple program. - I know that computers only do what we tell them to do.
	<u>Vocabulary</u> Information technology – Using computers and devices to store, share, and find information. Benefits – Good things or advantages that come from something.	<u>Vocabulary</u> Portrait – A picture or photo that is taller than it is wide (often of a person). Landscape – A picture or photo that is wider than it is tall (often of scenery). Lens – The part of a camera that helps take pictures by focusing light. Lighting – How light is used in a photo or picture to make it bright, clear, or set a mood.	<u>Vocabulary</u> Algorithm – A set of clear steps or instructions to solve a problem or complete a task. Robot – A machine that can be programmed to do jobs or actions automatically. Debug – To find and fix mistakes in a computer program or set of instructions.	<u>Vocabulary</u> Pictogram – A way of showing information using pictures or symbols. Tally chart – A way of counting things using marks (like lines) to keep track of numbers. Attribute – A feature or characteristic of something (what it is like, e.g. colour, size, shape).	<u>Vocabulary</u> Rhythm – A steady beat or pattern of sounds or movements. Pattern – Something that repeats in a regular way (like shapes, sounds, or actions). Purpose – The reason why something is done.	<u>Vocabulary</u> Outcome – What happens at the end or the result of something. Command – An instruction telling someone or something what to do. Sequence – A set of steps in a specific order.

Key Stage 1 – Skills

	Year 1	Year 2
Using technology	Use a range of digital devices for different purposes with support.	Confidently select and use digital technology independently for a range of purposes.
Digital literacy	Create, save and retrieve simple digital work.	Create, edit, save, organise and share digital content independently.
Programming	Create and follow simple algorithms using programmable devices.	Write, test and improve simple programs independently.
Sequencing	Arrange instructions into the correct sequence.	Plan and sequence instructions to achieve a desired outcome.
Debugging	Identify simple mistakes in a sequence or program with support.	Test, debug and improve programs independently.
Computational thinking	Predict what a program will do before running it.	Solve problems logically by testing, evaluating and refining solutions.
Creating digital content	Use digital tools to create pictures, text or simple media.	Combine digital tools to create purposeful digital products (music, quizzes, photographs, artwork).
Handling information	Group and organise information using technology.	Collect, sort and present information using digital tools such as pictograms.
Online safety	Keep personal information private and use technology kindly.	Make safe, responsible choices online and explain how to seek help if worried.
Evaluation	Explain what a program or digital creation does.	Evaluate digital work and improve it based on testing and feedback.