

Computing

Long-term plan

Mixed-age

This version was updated on 02/10/2026
12:20

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Suggested long-term plan: Computing

Overview (All year groups)

Cycle A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1/2	Computing systems: Using computers 1	Programming 1: Commands unplugged	Programming 1: Algorithms and debugging	Creating media: Digital designers 1	Creating media: Digital designers 2	Online safety: Online privacy and safe use
Year 3/4	Programming: Scratch	Computing systems: Connecting devices	Programming 1: Further coding with Scratch	Computing systems: Connecting networks	Creating media: Creating video trailers	Online safety: Connecting safely online
Year 5/6	Programming 1: Scratch: Music	Computing systems: Websites, search and storage	Programming 1: Scratch: Pixels and positions	Computing systems: Understanding hardware, networks and security	Creating media: Creating animations	Data handling: Exploring spreadsheets
Cycle B	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1/2	Computing systems: Using computers 2	Programming 2: Bee-Bots	Programming 2: MakeCode	Creating media: Digital designers 3	Coming soon! Computing systems: The internet	Data handling: Introduction to data
Year 3/4	Programming 2: Computational thinking	Y4 Computing systems: Managing digital information	Programming: MakeCode: Loops	Creating media: Creating a website	Creating media: Creating digital images	Data handling: Exploring branching databases
Year 5/6	Programming 2: BBC micro:bit	Computing systems and networks: Machine learning	Programming: Exploring Python	Creating media: Creating podcasts	Creating media: Creating a multimedia project	Online safety: Life online

Click here for information on [different mixed-age year group combinations for Computing](#).

Kapow Primary is refreshing its Computing scheme for 2026/27 – learn more [here](#). Units will be added to the upcoming long-term plan as they are published, well in

advance of teaching. There may be minimal changes to unit titles when units are published.

Note: If you are currently teaching Cycle A of the 2025/26 long-term plan, it is advisable to complete Cycle B before moving to the new long-term plan.

Suggested long-term plan: Computing

Overview - Key stage 1

Year 1/2

Unit 1	<u>Computing systems: Using computers 1</u> 5 lessons Exploring different types of computers, their common parts and how they are used in everyday life, while developing an understanding of logging in, using software and saving digital work. Pupils apply their understanding by creating and saving files, using usernames and passwords, and investigating how digital devices connect and share information through the internet.	Unit 2	<u>Programming 1: Commands unplugged</u> 5 lessons Exploring commands and instructions through a range of unplugged games and activities while developing an understanding of key programming vocabulary. Pupils apply their learning by following and creating simple instructions to predict and control outcomes.
Unit 3	<u>Programming 1: Algorithms and debugging</u> 5 lessons Exploring algorithms and debugging through unplugged activities and online programming games.	Unit 4	<u>Creating media: Digital designers 1</u> 0 lessons Creating digital content by using simple digital tools to make drawings, text and recordings. Pupils follow models to express their ideas, develop confidence using technology and begin to evaluate digital media by talking about their own and others' work.

Unit 5	<u>Creating media: Digital designers 2</u> 0 lessons Creating digital content with growing independence by selecting appropriate tools and making simple decisions about presentation. Pupils develop their evaluation skills by reflecting on their work, identifying strengths and suggesting improvements to enhance their digital creations.	Unit 6	<u>Online safety: Online privacy and safe use</u> 0 lessons Learning how to stay safe online by understanding online accounts, passwords and personal information. Pupils learn to behave responsibly online, recognise potential risks and respond safely to unfamiliar messages by reporting concerns to a trusted adult.
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Suggested long-term plan: Computing

Overview - Lower key stage 2

Year 3/4

Unit 1	<u>Programming: Scratch</u> 5 lessons Investigating programming through Scratch by creating animations and learning key coding concepts. Pupils apply their understanding by testing, debugging and evaluating their work to improve and refine digital projects.	Unit 2	<u>Computing systems: Connecting devices</u> 5 lessons Exploring computers, their components and peripherals, including how devices connect and work together in networks to share information. Pupils apply their understanding by identifying suitable technology for different tasks, connecting devices and using a school network to access and share information.
Unit 3	<u>Programming 1: Further coding with Scratch</u> 5 lessons Designing and programming a game using variables, sensors and 'if' statements to control outcomes and interactions. Pupils debug and evaluate their projects to improve functionality, refine gameplay and develop more effective game designs.	Unit 4	<u>Computing systems: Connecting networks</u> 5 lessons Exploring how local networks connect to the internet and how people use the World Wide Web. Pupils learn about routers, servers, websites and search engines before discovering how networks enable communication and collaboration.

Unit 5	<u>Creating media: Creating video trailers</u> 0 lessons Creating digital media by capturing and combining images and video to produce a short trailer. Pupils learn how to sequence clips on a timeline and use simple editing techniques to improve the clarity and impact of their work.	Unit 6	<u>Online safety: Connecting safely online</u> 0 lessons Developing online safety by learning how people connect through online platforms and games. Pupils learn to recognise unacceptable behaviour, understand the risks of communicating with strangers and know how to respond to problems and seek help from a trusted adult.
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Suggested long-term plan: Computing

Overview - Upper key stage 2

Year 5/6

Unit 1	<u>Programming 1: Scratch: Music</u> 5 lessons Developing programming and music skills through creating digital sounds, beats and melodies using coding techniques. Pupils apply their understanding by using nested loops to create rhythms and compose a soundtrack with layered musical patterns.	Unit 2	<u>Computing systems: Websites, search and storage</u> 5 lessons Explore how the internet and digital systems help us access, store and share information.
Unit 3	<u>Programming 1: Scratch: Pixels and positions</u> 5 lessons Exploring block-based programming in Scratch, focusing on pixels, coordinates, degrees, variables, conditional statements, loops and debugging to control movement and create interactive programs. Pupils apply their understanding to build, test, evaluate and improve a game, using code to create accurate movement, repeating actions and responsive gameplay.	Unit 4	<u>Computing systems: Understanding hardware, networks and security</u> 5 lessons Exploring how computer systems work, focusing on hardware, networks, data storage, data packets, troubleshooting and security. Pupils develop their understanding of how information travels across networks, solve simple hardware and network problems and explore how security measures help protect accounts and information.

Unit 5	<u>Creating media: Creating animations</u> 0 lessons Planning and creating digital animations by combining images and audio on a timeline. Pupils learn how sequencing and timing influence storytelling and refine their work to improve the clarity and impact of their final animation.	Unit 6	<u>Data handling: Exploring spreadsheets</u> 0 lessons Using spreadsheets to organise, analyse and present data. Pupils learn how to enter and format information, use simple formulas and create charts, before evaluating how effectively spreadsheets can answer questions and solve real-world problems.
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Suggested long-term plan: Computing

Overview - Key stage 1

Year 1/2

Unit 1	<u>Computing systems: Using computers 2</u> 5 lessons Exploring how computers use inputs, programs and outputs to make things happen, pupils identify common input and output devices and recognise how computers are used in everyday life. They also learn how to log in and out safely and save and organise files so they can find their work again later.	Unit 2	<u>Programming 2: Bee-Bots</u> 5 lessons Exploring commands, instructions and errors through programming a Bee-Bot and learning how sequences control movement. Pupils practise debugging and apply logical thinking to predict, test and improve simple programs.
Unit 3	<u>Programming 2: MakeCode</u> 5 lessons Exploring how to use 'MakeCode' by investigating what different programming blocks do and how they control outcomes. Pupils apply their understanding by planning, building and testing their own program.	Unit 4	<u>Creating media: Digital designers 3</u> 0 lessons Creating digital content for a specific purpose and audience by combining text and images effectively. Pupils learn how layout, size and colour can improve communication, organise content on a page and develop their editing skills by reviewing and improving their work.

Unit 5	Computing systems: The internet	Unit 6	<u>Data handling: Introduction to data</u> 0 lessons Exploring data by collecting, organising and presenting information using digital tools. Pupils learn how to group data, create simple digital charts and pictograms and evaluate how effectively information has been represented and communicated.
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Suggested long-term plan: Computing

Overview - Lower key stage 2

Year 3/4

Unit 1	<u>Programming 2: Computational thinking</u> 5 lessons Developing computational thinking skills through decomposition, pattern recognition, abstraction and algorithm design to solve problems. Pupils apply these approaches by creating and evaluating a Scratch project, reflecting on how computational thinking improves digital solutions and programming outcomes.	Unit 2	<u>Y4 Computing systems: Managing digital information</u> 0 lessons Understanding how digital information is stored, organised and shared across devices and networks. Pupils use shared spaces and cloud-based tools to collaborate, manage files and develop their understanding of how content can be saved, accessed, edited and retrieved by multiple users.
Unit 3	<u>Programming: MakeCode: Loops</u> 0 lessons Further developing programming skills using the MakeCode platform. Pupils apply their understanding by replacing repeated instructions with loops to develop more effective programs.	Unit 4	<u>Creating media: Creating a website</u> 0 lessons Creating web content by designing and building simple web pages that combine text and images. Pupils learn how information is organised on a webpage and consider how content can be structured for a specific purpose and audience.

Unit 5	<u>Creating media: Creating digital images</u> 0 lessons Editing digital images by capturing, enhancing and modifying photographs using a range of digital tools, including simple AI features. Pupils learn how images can be improved for a purpose and explore how automated tools can support the editing process.	Unit 6	<u>Data handling: Exploring branching databases</u> 0 lessons Exploring how branching databases organise and classify information using yes/no questions. Pupils plan, create and test their own digital branching databases and evaluate how effectively they identify and classify information.
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Suggested long-term plan: Computing

Overview - Upper key stage 2

Year 5/6

Unit 1	<u>Programming 2: BBC micro:bit</u> 5 lessons Investigating how to program the BBC micro:bit by creating interactive projects using sensors, variables and conditional statements. Pupils experiment with variables, apply conditional statements and develop an understanding of how coding brings digital devices to life.	Unit 2	<u>Computing systems and networks: Machine learning</u> 0 lessons Exploring how computers can learn from data and considering how training data affects outcomes. Pupils investigate how machine learning is used in everyday life, identify patterns in data and consider the benefits, limitations and risks of AI systems.
Unit 3	<u>Programming: Exploring Python</u> 5 lessons Exploring text-based programming with Python, pupils learn how syntax and nested loops control program outcomes and develop their ability to identify and fix syntax and logic errors through careful debugging.	Unit 4	<u>Creating media: Creating podcasts</u> 0 lessons Producing audio content by planning, recording and editing a podcast for a specific audience and purpose. Pupils learn how structure, pacing and audio quality influence communication and refine their work to improve clarity and engagement.

Unit 5	<u>Creating media: Creating a multimedia project</u> 0 lessons Bringing together creating media skills developed throughout primary school, pupils plan and create a multimedia project. They combine text, images, audio and video to communicate information for a specific audience, evaluating and refining their work to improve its effectiveness.	Unit 6	<u>Online safety: Life online</u> 1 lessons Learning about social media and online platforms by examining how content is shared and viewed online. Pupils consider how online identities are shaped, recognise online risks and learn how to use tools such as block, mute and report to stay safe.
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