



Welcome to Digital Sparks! Our whole-school computing scheme is designed to cultivate curiosity and foster responsible online citizenship in an ever-evolving digital landscape. Our mission is to nurture digital creators, engage critical thinkers and logical computer scientists, move away from passive technology consumption towards active, informed and ethical use of technology. Through a focused approach on building digital skills, we aim to prepare children for the future workforce, ignite their passion for computing and foster lifelong learners adaptable to rapid advancements in technology.

Digital Sparks employs a spiral curriculum where key concepts are progressively built upon and revisited to deepen understanding and application across a variety of contexts. This systematic approach enhances retention and reduces forgetting, supporting children in making meaningful connections in their learning.

This whole-school progression map for the Digital Foundations strand of Digital Sparks outlines a comprehensive framework across six units of work, each designed to build the essential computing foundations required for the upcoming academic year. This strand focuses on developing proficiency with technology and digital devices, gaining familiarity with operating systems, developing mouse and keyboard skills, understanding icons and symbols and creating digital artefacts. Key skills and concepts are intentionally revisited across the six units, ensuring that children's knowledge is progressively built upon and refined. This progression map is structured to highlight the Milestone Concepts, representing key outcomes for KS1, LKS2 and UKS2. These Milestone Concepts ensure that children not only meet but exceed the national curriculum computing requirements. The map clearly delineates the sequence of learning, indicating where prerequisite knowledge must be secured before moving on to more complex concepts.

This **Digital Foundations Whole-School Progression Map** has been written to support educators who have chosen to adopt Digital Sparks in part or in full.

Disclaimer: Please note that these Milestone Learning Pathways are created by Twinkl and are based on our interpretation of the 2014 [national curriculum](#) objectives, recent DfE and Ofsted guidance documentation (including the [Research review series: computing - GOV.UK](#)). This progression guidance is intended to serve as a guide for educators, who should use their professional judgement and consider the abilities of their own students when planning and delivering computing lessons to ensure they are delivering a skill-building, progressive computing curriculum.

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Technology and Digital Devices Whole School Progression Map

Milestone Concept Children will understand the presence of technology in daily life, recognise digital devices and demonstrate responsible usage habits.		Milestone Concept Children will comprehend the Input-Process-Output (IPO) model in computing and understand how devices are interconnected within digital systems.		Milestone Concept Children will recognise the ever-changing landscape of technology and its impact on society. Children will understand the function and importance of computer networks in connecting computers and facilitating communication and collaboration.	
Digital Foundations 1 Step 1 Step 2	Digital Foundations 2 Step 1 Step 2	Digital Foundations 3 Step 1 Step 2	Digital Foundations 4 Step 1 Step 2	Digital Foundations 5 Step 1 Step 2	Digital Foundations 6 Step 1 Step 2
I know simple rules that help me use technology safely and responsibly.	I know why safety rules are important when using technology. I know some different ways to stay safe when using technology.				
I know the names of different digital devices. I know the different things you can do on digital devices. I know the common parts of digital devices and how they are used.	I know the names of a variety of digital devices. I know that a digital device contains a computer or microcomputer. I know that some digital devices can be used to create, share and save information. I know the common features of digital devices.	I know the difference between a device and a digital device and can name some examples. I know what input and output devices are and can give examples of them. I know the function of different input and output devices. I know why devices need to connect. I know how devices can be connected.	I can name some input and output devices. I can explain the stages of the IPO model for computing. I can give an example of the IPO model for computing. I know that a computing device is made of connected parts and can be connected to other computing devices. I can describe different ways that computing devices can connect to each other. I know some of the advantages and disadvantages of different connections. I can explain some reasons why computing devices might need to be connected to each other.	I know what a computer network is. I know the key components involved in a computer network. I know the types of connections used in a computer network.	I can explain different network types. I can explain how connecting computers together in a network supports communication and collaboration.
				I know that technology has changed over time. I can name at least three key developments in technology.	I know why technology changes. I can make predictions about future changes in technology.

Operating System Familiarity Whole School Progression Map

Milestone Concept Children will identify the basic components of an operating system and demonstrate an ability to navigate through simple tasks. Children will recognise and understand common icons used across various programs and applications.		Milestone Concept Children will confidently navigate operating systems and effectively access, save, modify and delete files.		Milestone Concept Children will develop proficiency in using folders to organise files efficiently. Children will navigate the operating system adeptly using the search function to locate files and applications swiftly.	
Digital Foundations 1 Step 5	Digital Foundations 2 Step 5	Digital Foundations 3 Step 3	Digital Foundations 4 Step 3	Digital Foundations 5 Step 3	Digital Foundations 6 Step 3
I can open and close a program. I can minimise a program.	I can select, open and close programs independently. I can minimise, restore and resize a program.	I can find a file or program on my computing device in different ways.	I know that files and programs can be organised and accessed in different ways. I can modify the content in a file and save the results. I can select a file in a folder and delete it.	I know that files are organised in folders on a computer. I know how to create a new folder within file explorer. I know how to move a file from one folder to another.	I know the different levels of permissions within folders. I can use logical folder structures to organise my digital workspace.
I know there are steps to log in to and power down a digital device.	I can log in with support. I can log out and power down a computer with support.				
		I know what an operating system is.	I can identify the operating system of my device. I can navigate the operating system to find a file and open it.	I know how to use the search function to perform basic searches.	I can use advanced search functions to improve my search results.

Mouse and Keyboard Skills Whole School Progression Map

Milestone Concept Children will confidently interact with technology by learning to use a mouse or trackpad and a keyboard effectively for navigation and input.		Milestone Concept Children will comprehensively understand the functionalities of mice and trackpads, as well as proficiently utilise both hands on a keyboard to type letters, numbers and symbols.		Milestone Concept Children will recognise specific key combinations on a keyboard while also using both hands to type letters, numbers and symbols at an accelerating pace.	
Digital Foundations 1 Step 3 Step 4	Digital Foundations 2 Step 3 Step 4	Digital Foundations 3 Step 5	Digital Foundations 4 Step 5	Digital Foundations 5 Step 4 Step 5	Digital Foundations 6 Step 4 Step 5
I can hold a computer mouse correctly. I can move the cursor on a computer screen. I can click on an object. I can click and drag to move an object. I know how to double-click on an object.	I can use a computer mouse or trackpad to move the cursor on a screen. I know the different parts of a computer mouse or trackpad and their functions. I can single-click and double-click. I can click and drag to move objects of different sizes and shapes. I can use right-click to copy and paste objects.	I know some of the different actions that can be achieved with a mouse or trackpad.	I know that there are different types of click available when using a mouse or trackpad. I can explain the functions of different types of click.		
I know the names of some keys on a computer keyboard. I know where to find the letter and number keys. I can type a number, letter or word. I can use the Caps Lock key. I can use the Backspace key.	I know the name and function of the main keys on a computer keyboard. I can use the computer keyboard to add, delete and space text for others to read.	I know the locations of the main keys on a keyboard. I know which keys are better typed using the right or left hand.	I can find the keys on a keyboard. I can use the keys on a keyboard to type with increasing speed and accuracy.	I know a range of keyboard shortcuts. I know which fingers are best used for each key when typing. I know the location of the home keys.	I can successfully use the function keys on a keyboard. I can use both hands when typing.

Understanding Icons and Symbols Whole School Progression Map

Milestone Concept Children will recognise and understand common icons used across various programs and applications. Children will recognise and use icons for specific tools within a program.		Milestone Concept Children will be able to recognise and understand a broader variety of common icons used in digital environments, comprehending their functions and purposes within various applications and systems.		Milestone Concept Children will be proficient in identifying and understanding a broader array of common icons, particularly those encountered in online services, discerning their respective functions effectively.	
Digital Foundations 1 Step 5 Step 6	Digital Foundations 2 Step 5 Step 6	Digital Foundations 3 Step 4	Digital Foundations 4 Step 4	Digital Foundations 5 Step 6	Digital Foundations 6 Step 6
I know some common icons used on digital devices. I can choose the correct icon to select a tool.	I can recognise and match icons that have a similar function. I can recognise icons that represent specific tools within a program.	I can identify the tool or action an icon represents. I can name a range of common icons and explain what they do.	I can name some tools and actions available on computing devices. I can recognise the icons that are used to represent common tools and actions. I know that the tools and actions available on a device or in a program are not always the same.	I know the name and function of the refresh, share, link, back and forward icons. I can recognise the padlock, bookmark and attachment icons.	I can recognise common icons such as the settings, Wi-Fi, search and toggle icons.

Creating Digital Artefacts Whole School Progression Map

Milestone Concept Children will create, save, open and close files. Children will recognise and use icons for specific tools within a program.		Milestone Concept Children will know how to use formatting tools for text, manipulate images and utilise spelling and grammar tools to enhance the content and appearance of digital artefacts.		Milestone Concept Children will utilise advanced formatting tools within documents and effectively incorporate hyperlinks to enhance document interactivity and ease of navigation.	
Digital Foundations 1 Step 6	Digital Foundations 2 Step 6	Digital Foundations 3 Step 6	Digital Foundations 4 Step 6	Digital Foundations 5 Step 4 Step 5	Digital Foundations 6 Step 4 Step 5
I can find and open a specific program. I can close the program when I have finished using it.					
I can save digital work with support.	I can find and open a file with support. I can save digital work as a file.				
I can choose the correct icon to select a tool. I can select different tools to create digital work.	I can recognise icons that represent specific tools within a program. I can create a piece of digital art.				
		I know that word processing software has tools to check the spelling of text on a page. I can use a mouse or trackpad to select words. I can change the appearance of text on a page.	I can change the layout of text on a page on screen. I can change the way the page is set up. I can use tools in a word processing program to check the spelling and grammar of the text. I can add images to a page and change how they fit in with the text.	I know how to copy and paste text and images into a document. I know how to crop and align text and images in a document. I know how to insert and edit a table in a document. I know how to link text and images within a document to an external website.	I know about page margins, page layout and page orientation in a document or presentation. I know about headers and footers in a document or presentation. I can use paste special to paste unformatted text. I can create internal hyperlinks in a document or presentation.