

Unlocking Every Child's Potential as a Unique Child of God

Year 2 Computing Curriculum 2025

Children Should be taught:

Pupils should be taught to:

- Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- Co2/1.2 create and debug simple programs
- Co2/1.3 use logical reasoning to predict the behaviour of simple programs
- Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content
- Co2/1.5 recognise common uses of information technology beyond school
- Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies

Term 1 – Memory Box	Term 2 – Paddington Bear in London	Term 3 – Roots & Shoots
<p>Online Safety – Lesson 1</p> <p>Children will decide which information can be shared online.</p> <p>Computing systems and networks 2: Word processing (Lessons 1-5)</p> <p>Learning about word processing and how to stay safe online as well developing touch-typing skills. Introducing important keyboard shortcuts, as well as simple editing tools within a word processor including bold, italics, underline and font colour as well as how to import images.</p>	<p>Online Safety – Lesson 2</p> <p>Children will practise keeping information safe and private online.</p> <p>Computing systems and networks 1: What is a computer? (Lessons 1,2,5)</p> <p>Explore what a computer is by identifying and learning how inputs and outputs work; understand the different roles computers play in the real world.</p> <p>Programming 1: Algorithms and debugging (Lessons 1,2,4,5)</p> <p>Developing an understanding of what algorithms are, how to program them and how they can be developed to be more efficient through a range of unplugged and plugged-in activities.</p>	<p>Online Safety – Lesson 3 and 4</p> <p>Children will recognise when to deny permission and question the veracity of online information.</p> <p>Programming 2: Scratch Jr (Lessons 1,2,4,5)</p> <p>Exploring what 'blocks' do, using the app 'ScratchJr,' by carrying out an informative cycle of predict > test > review. Programming a familiar story and an animation of an animal, as well as following an algorithm to record a joke.</p> <p>Data handling: International Space Station (Lessons 1,3,5) Lesson 4 is about growing plants in space.</p> <p>Children will investigate how computers are used in the wider world, focusing on their role for astronauts aboard the ISS. They will use an interactive map to locate information and learn to collect, input, and interpret data in a spreadsheet.</p>
<p>Key Vocab: Backspace, bold, copy, cut, delete, image, import, keyboard, paste, redo, space bar, text effects, touch typing, underline, undo word-processing software</p>	<p>Key Vocab: desktop, laptop, mouse, keyboard, monitor, device, input, output, till, digital recorder, scanner, technology, video</p> <p>Algorithm, sequence, instructions, decomposition, predict, data, bug, debug, error</p>	<p>Key Vocab: Block, code, ScratchJr, animation, loop, repeat, sequence, program</p> <p>interactive map, International Space Station, satellite, survival, air conditioning, astronaut, data, monitor, temperature, sensors</p>
<p>Curriculum enhancement:</p>	<p>Curriculum enhancement:</p>	<p>Curriculum enhancement:</p>
<p>Essential Skills & Knowledge:</p> <ul style="list-style-type: none"> • Find keys on a computer keyboard, type capital letters using 'shift', identify that the keyboard is an important input device. • Typing and making simple alterations to text eg bold, italic using buttons. • Alter an image in a document. • Understand how to use copy and paste to copy text from one document to another; use different text styles and editing tools and credit source materials. 	<p>Essential Skills & Knowledge:</p> <ul style="list-style-type: none"> • Identify screen, keyboard, and mouse; explain the function of each part. • Recognise that technology follows instructions and predict what technology will do. • Recognise computers in the world around them; explain the role of each computer. • Write an algorithm; explain what decomposition means. • Write clear and precise algorithms that can be understood by another person; explain that computers use algorithms to make predictions. 	<p>Essential Skills & Knowledge:</p> <ul style="list-style-type: none"> • Predict what the blocks might do; recognise why they might want to use that block. • Explain what a loop is and why it's useful; program a simple loop. • Sequence blocks appropriately; explain the role of each block in their program. • Explain what an algorithm is; choose code to match an algorithm; use an algorithm to write a computer program. • Retrieve digital content from an interactive map; consider how a computer is used to monitor data relating to human survival needs.

	<ul style="list-style-type: none"> • Explain what abstraction is and give an example of when it might be useful. • understand what debugging is; identify incorrect steps within an algorithm. 	<ul style="list-style-type: none"> • Read temperatures using a thermometer; understand that sensors monitor the ISS to make sure the astronauts are safe and healthy; design a display to show the data that the sensors collect. • Interpret data and identify which planets could sustain life.
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Year 2 E-Safety – Follow education for a connected world statements/Project Evolve.

It is important that learning outcomes are interpreted within contexts that are relevant to the learner’s experience and are achieved through learning that is matched to the readiness of the learner.

Self-image and identity	Online relationships	Online reputation
<p>I can explain how other people may look and act differently online and offline.</p> <p>I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.</p>	<p>I can give examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country).</p> <p>I can explain who I should ask before sharing things about myself or others online.</p> <p>I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.</p> <p>I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do.</p> <p>I can identify who can help me if something happens online without my consent.</p> <p>I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online.</p> <p>I can explain why I should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online.</p>	<p>I can explain how information put online about someone can last for a long time.</p> <p>I can describe how anyone's online information could be seen by others.</p> <p>I know who to talk to if something has been put online without consent or if it is incorrect.</p>
Online bullying	Health, well-being and lifestyle	Privacy and security
<p>I can explain what bullying is, how people may bully others and how bullying can make someone feel.</p> <p>I can explain why anyone who experiences bullying is not to blame.</p> <p>I can talk about how anyone experiencing bullying can get help.</p>	<p>I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.</p> <p>I can say how those rules / guides can help anyone accessing online technologies.</p>	<p>I can explain how passwords can be used to protect information, accounts and devices.</p> <p>I can explain and give examples of what is meant by 'private' and 'keeping things private'.</p> <p>I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).</p> <p>I can explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).</p>
Managing online information		Copyright and ownership

I can use simple keywords in **search engines**.

I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).

I can explain what **voice activated searching** is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri).

I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'.

I can explain why some information I find online may not be real or true.

I can recognise that content on the internet may belong to other people.

I can describe why other people's work belongs to them.