

Computing at Eltham Church of England Primary School

2022: Updated to coordinate with RHE curriculum and include more focus on evaluation of search and online context following student voice consultation.

	Autumn	Spring	Summer
EYFS	Online Safety Introduction: Smartie the Penguin	Programming: Bee bots Introduction	Programming: Bee bots Maths Activity
Year 1	<p>Online Safety Introduction: Smartie the Penguin - Year 1 [TT: Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies]</p> <p>Programming: ScratchJr Knock Knock Jokes - link to Literacy [TT: Recognise common uses of information technology in the home and school environment]</p>	<p>Online Safety revisit: Jessie and Friends https://www.thinkuknow.co.uk/professionals/resources/jessie-and-friends/ [TT: Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies]</p> <p>Computing Skills: Data and information – Grouping data [TT: Use technology purposefully to create digital content]</p>	<p>Programming: Bee bots – creating BeeBot World – could be linked to story maps in Literacy [TT: Understand what algorithms are and how they are implemented on digital devices]</p> <p>Information Technology: Computing Systems and Networks –Technology around us. [TT: Recognise common uses of information technology in the home and school environment]</p>
Year 2	<p>Online Safety Introduction: Smartie the Penguin - Year 2 [TT: Use technology safely and keep personal information private]</p> <p>Programming: Bee Bots go wild – link to Science topic Living in Habitats [TT: Create simple programs, Create and debug simple programs, Debug simple programs by using logical reasoning to predict the actions instructed by the code, Understand that programs execute by following precise and unambiguous instructions,]</p>	<p>Online Safety revisit: Lee and Kim [TT: Use technology safely and keep personal information private]</p> <p>Computing Skills: Data and information – Pictograms [TT: Use technology purposefully to create, organise, store, manipulate and retrieve digital content, Use technology purposefully to create digital content comparing the benefits of different programs]</p>	<p>Programming: Scratch - Tinkering and World Map – link to Creative Curriculum Geography statements [TT: Use logical reasoning to predict the behaviour of simple programs]</p> <p>Information Technology: IT around us [TT: Recognise common uses of information technology beyond school]</p>
Year 3	<p>Online Safety Introduction: Smart Crew [TT: Use technology safely and respectfully, keeping personal information private, Use technology safely and recognise acceptable and unacceptable</p>	<p>Online Safety revisit: Supersearch (RHE) [TT: Use simple search technologies, Use simple search technologies and recognise that some sources are more reliable than others,</p>	<p>Programming: Microbit – Interactive Badge and Compasses https://makecode.microbit.org/projects/compass - link to Science Forces and Magnets unit [TT: Recognise familiar forms of input</p>

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	<p>behaviour]</p> <p>Programming: Scratch – Animated Poem Decomposition - link to Literacy topic Benjamin Zephaniah [TT: Use logical reasoning to explain how some simple algorithms work]</p>	<p>Understand that computer networks enable the sharing of data and information, Understand that the internet is a large network of computers and that information can be shared between computers]</p> <p>Computing Skills: Data and information – Branching databases [TT: With support select and use a variety of software to accomplish goals]</p>	<p>and output devices and how they are used, Make efficient use of familiar forms of input and output devices, Design, write and debug programs that control or simulate virtual events]</p>
Year 4	<p>Online Safety Introduction: Digital Citizenship from Commonsense Media https://www.commonsense.org/education/uk/digital-citizenship/primary (includes lesson on evaluation of content Is Seeing Believing) [TT: Use technology responsibly and understand that communication online may be seen by others, Understand how results are selected and ranked by search engines]</p> <p>Programming: Scratch – Viking Raid Animation [TT: Decompose programs into smaller parts, Use logical reasoning to detect and correct errors in algorithms and programs]</p>	<p>Online Safety revisit: PictureWise (RHE) [TT: Understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies]</p> <p>Programming: Microbit – States of Matter simulation project - link to Science topic on States of Matter https://makecode.microbit.org/projects/states-of-matter [TT: Use other input devices such as cameras or sensors, Select, use and combine a variety of software, systems and content that accomplish given goals]</p>	<p>Computing Skills: We are website designers [TT: With support select and use a variety of software on a range of digital devices, With support select, use and combine a variety of software on a range of digital devices to accomplish given goals, Understand what servers are and how they provide services to a network]</p> <p>Optional Extra: Data and Information – Data Logging</p>
Year 5	<p>Online Safety Introduction: Digital Citizenship from Commonsense Media https://www.commonsense.org/education/uk/digital-citizenship/primary (includes lesson on evaluation of content A Creator's Rights and Responsibilities) [TT: Understand the need to only select age appropriate content,]</p> <p>Programming: Scratch – Physical Simulation of Planets – link to Science topic on Space [TT: Design, input and test</p>	<p>Online Safety revisit: To share or not to share (RHE) [TT: Begin to use internet services to share and transfer data to a third party, Use filters in search technologies effectively, Use filters in search technologies effectively and appreciates how results are selected and ranked]</p> <p>Computing Skills: Switch onto Computing: We are architects – using Sketchup through G-suite – link to</p>	<p>Programming: Microbit – Guitar project https://makecode.microbit.org/projects/guitar - link to Creative Curriculum South America Topic [Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated, Design write and test simple programs with opportunities for selection, where a particular result will happen based on actions or situations controlled by the user, Use logical reasoning to explain how</p>

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	<p>an increasingly complex set of instructions to a program or device, Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems]</p>	<p>Ancient Greece Architecture Curriculum [TT: Independently select and use appropriate software for a task, Independently select, use and combine a variety of software to design and create content for a given audience]</p>	<p>increasingly complex algorithms work to ensure a program's efficiency]</p> <p>Optional Extra: Data and Information – Flat File Databases</p>
Year 6	<p>Online Safety Introduction: Digital Citizenship from Commonsense Media https://www.commonsense.org/education/uk/digital-citizenship/primary (includes lesson on evaluation of content Reading News Online) [TT: Begin to use internet services within his/her own creations to share and transfer data to a third party. Be discerning when evaluating digital content, Use filters in search technologies effectively and is discerning when evaluating digital content]</p> <p>Programming: Data Handling using a Micro-bit project, link to Science topic Electricity and Circuits, for example a light meter to test science experiments about brightness of a bulb https://makecode.microbit.org/projects/light-level-meter [TT: Independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information, Include use of sequences, selection and repetition with the hardware used to explore real world systems]</p>	<p>Online Safety revisit: What is the risk? (RHE) [TT: Use technology respectfully and responsibly, Identify a range of ways to report concerns about content and contact in and out of school]</p> <p>Programming: Scratch - Fossil Formation Simulation, link to Evolution and Inheritance in Science [TT: Include use of sequences, selection and repetition with the hardware used to explore real world systems, Create programs which use variables, Use variables, sequence, selection, and repetition in programs, Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently]</p>	<p>Computing Skills: Data and Information – Spreadsheets [TT: Understand how computer networks enable computers to communicate and collaborate, Independently select, use and combine a variety of software to design and create content for a given audience, including collecting, analysing, evaluating and presenting data and information, Design and create a range of programs, systems and content for a given audience]</p> <p>Optional Extra: We are environmentalists – using Google Surveys or taught through other topics</p>

Curriculum Objectives in full

Foundation Stage

Understanding the world - Technology: children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes

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Expressive arts and design involves enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of activities in art, music, movement, dance, role-play, and design and **technology**

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*

Programming – taught discreetly Online Safety – taught discreetly Computing Skills – sometimes taught discreetly Information Technology – taught as part of other topics, e.g. Literacy, Creative Curriculum

[T2-I-074-Computing-Objectives-Explained.pdf](#)