Computing at
Eltham Church of England Primary School

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

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 E-safety – taught discreetly Computing Skills – sometimes taught discretely Information Technology – taught as part of other topics, e.g. Literacy, Creative Curriculum

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	Autumn	Spring	Summer
EYFS	**E-Safety Introuduction**: Smartie the Penguin	**Programming:** Bee bots Introduction	**Programming:** Bee bots Maths Activitiy
Year 1	**E-safety Introduction:** Smartie the Penguin **Programming:** ScratchJr Knock Knock Jokes - link to Literacy	**E-Safety revisit:** Hectors world **Computing Skills:** J2 Data – link to Maths	**Programming:** Bee bots – creating BeeBot World – could be linked to story maps in Literacy
Year 2	**E-safety Introduction:** Smartie the Penguin **Programming:** Bee Bots go wild – link to Science topic Living in Habitats	**E-Safety revisit:** Lee and Kim **Computing Skills:** J2 Data – link to Maths	**Programming:** Scratch - Tinkering and World Map – link to Creative Curriculum Geography statements
Year 3	**E-safety Introduction:** Smart Crew **Programming:** Scratch – Animated Poem Decomposition - link to Literacy topic Bejamin Zephania	**E-safety revisit** **Computing Skills**: Switch onto Computing: We are opinion pollsters, using Google Surveys to through G-suite – link to Creative Curriculum, perhaps deforestation in Rainforests unit	**Programming**: Microbit – Interactive Badge and Compasses https://makecode.microbit.org/projects/compass - link to Science Forces and Magnets unit
Year 4	**E-safety Introduction:** Smart Crew **Programming:** Scratch – Viking Raid Animation	**E-Safety revisit** **Programming:** Microbit – States of Matter simlation project - link to Science topic on States of Matter https://makecode.microbit.org/projects/states-of-matter	**Computing Skills:** Stop Motion Animation – link to English topic Krindlekraz **Optional Extra:** Blogging through j2webby
Year 5	**E-safety Introduction:** Smart Crew OR Digital Citizen **Programming:** Scratch – Physical Simulation of Planets – link to Science topic on Space	**E-safety revisit** **Computing Skills:** Switch onto Computing: We are architects – using Sketchup through G-suite – link to Ancient Greece Architecture Curriculum	**Programming**: Microbit – Guitar project https://makecode.microbit.org/projects/guitar - link to Creative Curriculum South America Topic **Optional Extra:** Blogging through j2webby
Year 6	**E-safety Introduction:** Digital Citizen **Programming:** 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	**E-safety revisit** **Programming**: Scratch - Fossil Formation Simulation, link to Evolution and Inheritance in Science	**Computing Skills:** We are environmentalists – using Google Surveys or taught through other topics **Optional Extra:** Blogging through j2webby

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