Computing - Overview

Adapted from: Kapow long term overview and linked to EduThing

EYFS - Whilst the technology strand is no longer a specific area in the new EYFS framework (2021), having the opportunity to develop computing skills at an early age can foster interest and confidence in technology and give pupils an advantage going into KS1; therefore a curriculum is mapped out for them below.

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.

Computer science
Digital literacy / online safety
Information technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Earth (reception)		Computer systems and networks Using a computer	Programming 1 All about instructions	Computer systems and networks Exploring hardware	Programming 2 Programming bee-bots	Data handling Introduction to data

		Autumn	Spring	Summer
Air (year 1/2)	A	Computer systems and networks Improving mouse skills	Programming Bee:bots or Bee bots virtual	Data handling Intro to data
		Online safety – lesson 1 – using the internet safety Online safety – lesson 2 – online emotions	Online safety – lesson 3 – always be kind and considerate	Online safety – lesson 4 posting and sharing online Online safety – lesson 5 – how much time to spend online?
	B	Computing and network systems Word processing	Programming – moving a robot EduThing Unit Or Scratch Jr	Creating Media Digital Media – EduThing Unit Or Stop Motion
		Online safety – lesson 1 – what happens when I post online? Online safety – lesson 2 – how do I keep my things safe online?	Online safety – lesson 3 – its my choice	Online safety – lesson 4 - is it true?

		Autumn	Spring	Summer
Water (year ¾)	A	Programming Scratch	Computer systems and networks Emailing	Creating media Audio Production – EduThing Or Video trailers
		Online safety Lesson 1: Beliefs, opinions & facts Online safety Lesson 2: Who should I ask?	Online safety Lesson 3: when being online makes me upset	Online safety Lesson 4: sharing of information Online safety lesson 5: rules of social media
	B	Data and information – Data logging EduThing Unit Or Investigating weather	Creating media Video production – EduThing Or Website design	Programming Computational thinking

		Online safety Lesson 1 – what happens when I search online Online safety Lesson 2 – how do companies encourage us to buy online	Online safety Lesson 3 – fact, opinion or belief	Online safety Lesson 4 – what is a bot? Online safety Lesson 5 – what is my #TechTimetable like?

		Autumn	Spring	Summer
Fire (year 5/6)	A	Computer network systems Search engines	Data handling Mars Rover 1	Programming Sensing movement – EduThing (LEGO AI) Or Micro:bit
		Online safety lesson1: online protection Online safety lesson2: communication	Online safety lesson3: reputation	Online safety lesson4: bullying Online safety lesson5: health
	B	Computer networks and systems Bletchley Park	Programming Intro to python	Creating media Stop motion animation
		Online safety Lesson 1 : life online Online safety Lesson 2: sharing	Online safety Lesson 3: positive online reputation Online safety Lesson 4: capturing evidence	Online safety Lesson 5: password Online safety Lesson 6: think before you click