



Computing

Key Stage 1 Curriculum Objectives

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.

Year Group	Autumn	Spring	Summer
1	1.1 We are treasure hunters Using programmable toys 1.2 We are TV chefs Filming the steps of a recipe	1.3 We are painters Illustrating an eBook 1.4 We are collectors Finding images using the web	1.5 We are storytellers Producing a talking book 1.6 We are celebrating Creating a card electronically
2	2.1 We are astronauts Programming on screen 2.2 We are games testers Exploring how computer games work	2.3 We are photographers Taking, selecting and editing digital Images 2.4 We are researchers Researching a topic	2.5 We are detectives Communicating clues 2.6 We are zoologists Recording bug hunt data

Key stage 2 Curriculum Objectives

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.

Year Group	Autumn	Spring	Summer
3	3.1 We are programmers Programming an animation 3.2 We are bug fixers Finding and correcting bugs in programs	3.3 We are presenters Videoing performance 3d printing – designing simple 3d models	3.5 We are communicators Communicating safely on the internet 3.6 We are opinion pollsters Collecting and analysing data
4	4.1 We are software developers Developing a simple educational Game 4.2 We are toy designers Prototyping an interactive toy	4.5 We are co-authors Producing a Weebly website – simple website design 4.6 We are meteorologists Presenting the weather	4.3 We are musicians Producing digital music 3d printing – designing simple 3d models
5	5.1 We are game developers 3d printing – using brief to design and evaluate different 3d models	5.3 We are artists Fusing geometry and art 5.4 We are web developers Creating a web page about cyber safety	5.5 We are bloggers Sharing experiences and opinions 5.6 We are architects Creating a virtual space
6	5.1 We are game developers 3d printing – using brief to design and evaluate different 3d models	5.3 We are artists Fusing geometry and art 5.4 We are web developers Creating a web page about cyber safety	5.5 We are bloggers Sharing experiences and opinions 5.6 We are architects Creating a virtual space