Mylor Bridge CP School Curriculum
Computing

Purpose of study

A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Aims

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Subject content

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.

At Mylor Bridge CP School, we use Purple Mash to support our planning and delivery of the subject. Purple Mash provides a comprehensive scheme that meets the requirements of the national curriculum while ensuring accessibility for children with SEND, those facing language or literacy barriers, and opportunities for stretch and challenge for the more and most able. It promotes consistency across all year groups, supporting robust progression in digital literacy, coding, and computing skills.

It fosters engagement and motivation through interactive lessons and creative activities, encouraging independent learning, collaboration, and metacognition. Children develop transferable skills that prepare them for future technologies and secondary education, while formative and summative assessment features support high attainment and leadership oversight.

The curriculum promotes inclusivity, creativity, and challenge, acting as a safe and trusted platform for learning. By engaging all learners, including those with additional needs, Purple Mash nurtures confidence, self-esteem, and a love for computing. In addition to this, Purple Mash supports children in learning more about staying safe in the online world.

Year Group	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
EYFS	General Computing Skills	Communication & Language	Expressive Arts & Design	Literacy	Mathematics	Physical Development	Personal, Social and Emotional Development	Understanding the World
Year 1	Introduction to Purple Mash	Creative Computing	Data Explorers	Creating & Following Instructions	Animated Stories	Coding	Technology Around Us	Making Beats
Year 2	Route Planners	The Internet	Creating Pictures	Spreadsheets	Questioning	Coding	Presenting Ideas	Making Music
Year 3	Email	Route Planners	Branching Databases	Spreadsheets	Coding	Presentations- Microsoft, Apple & Google	Touch Typing	Micro:bits
Year 4	Unpacking Hardware & Software	Animation	Logo	Sound Stories	Effective Searching	Coding	Composing Beats	Introduction to AI
Year 5	Quizzing	Databases	Game Creator	Spreadsheets	Coding	Word Processing- Microsoft, Apple & Google	Concept Maps	Coding: External Devices
Year 6	Networks	Graphing	Blogging	Data Detectives	Coding	Introduction to Python	Spreadsheets- Microsoft, Apple & Google	3D Modelling