Computing Curriculum

"Learning Together, Achieving Together"


Ultimaker
6KL

National Curriculum in England for Computing

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.

Our Intent

At Mereside Primary Academy the Computing Curriculum enables our pupils to learn together and achieve together to understand and apply fundamental skills, to analyse and apply information technology. Our scheme aims to instil a sense of enjoyment around using technology and to develop pupil's appreciation of its capabilities and the opportunities technology offers to, create, manage, organise, and collaborate. Tinkering with software and programs forms a part of the ethos of the scheme as we want to develop pupils' confidence when encountering new technology, which is a vital skill in the ever evolving and changing landscape of technology. Through our curriculum, we intend for pupils not only to be digitally competent and have a range of transferable skills at a suitable level for the future workplace, but also to be responsible online citizens. Throughout every year group children work through five key stands of information technology which are: computing networks and systems, programming, creating media, data handling, online safety. These key area are then pulled together in a skills showcase. This unit then gives the children the chance to combine and apply skills and knowledge gained, from a range of the five key areas above, to produce a specific outcome. Our Computing Curriculum contributes towards our pupils developing the skills and knowledge needed to help them thrive in their next steps in education and their lives within their community.

Mereside Primary Academy

Long-term Overview for Computing

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
NURSERY	Children will have access to technology in the classroom					
RECEPTION	Children will have access to technology in the classroom					
YEAR 1	Computing systems and networks - Improving mouse skills	Programming 1- algorithms unplugged	Skill showcase - Rocket to the moon	Programming 2 - Beebots	Creating media - Digital imagery	Data handling - introduction to data
YEAR 2	Computing systems and networks – What is a computer	Programming 1 - algorithms and debugging	Computing systems and networks - word processing	Programming 2 - scratch or make code	Creating media - Stop motion option 1 using tablets option 2 using laptops	Data handling - international space station
YEAR 3	Computing systems and networks – networks	Programming - scratch	Computing systems and networks - Google	Computing systems and networks - journey inside a computer	Creating media – video trailers	Data handling - caparason cards database
YEAR 4	Computing systems and networks – Google	Programming - Further coding with scratch	Computing systems and networks - Google	Computing systems and networks - HTML	Creating media – Computational thinking	Data handling - Investigating weather
YEAR 5	Computing systems and networks - search engines	Programming 1 - programming music	Data handling - mars rover 1	Programming 2 - micro:bit	Creating media - stop motion animation	Skills showcase - mars rover 2
YEAR 6	Computing systems and networks - Bletchley park and the history of computer	Computing systems and networks - exploring AI	Data handling - big data 1	Programming - intro to python	Data handling - big data 2	Skill showcase - inventing a product