

Computing at Norton Infant School

The computing curriculum at Norton Infant School is designed to equip pupils with an ability to understand and change the world through computational thinking. The National Curriculum states that the purpose of study is to develop logical thinking and precision, combine creativity with rigour enabling pupils to apply underlying principles to understand real world systems and to create purposeful and usable artefacts.

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.

Foundation Stage

Understanding the world involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment.

Children in Foundation Stage have opportunities to use a wide range of technology and ICT resources (for example cameras, listening centres, voice recorders and computers), which will motivate them, enhance and extend their learning, and give them opportunities to engage in self-directed play.

A range of resources such as programmable toys, mobile phones, metal detectors, talking speech bubbles etc. enable children to explore ICT and computing within all 7 areas of learning.

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.

Year 1

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
(What on earth is a human?)	(How have bears changed over the years?)	(What is an explorer?)	(How does your garden grow?)	(Can pigs fly?)	(Who reigned the longest?)
<p>Understanding what algorithms are; how they are implemented.</p> <p>Create and debug programmes.</p> <p>Use logical reasoning to predict the behaviour of simple programs</p> <p>(Treasure maps and BeeBots)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>(Design and write a Christmas Card insert)</p>	<p>Understanding what algorithms are; how they are implemented.</p> <p>Create and debug programmes.</p> <p>Use logical reasoning to predict the behaviour of simple programs</p> <p>(BeeBots and world map)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Recognise common uses of information technology beyond school.</p> <p>Use technology safely and respectfully, keeping personal information private; Identify where to go for help when they have concerns about content or contact on the internet or other online technologies.</p> <p>(Using paint software to create plant/flower images, Hectors World ESafety)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>(PowerPoint – animal groupings)</p>	<p>Consolidate learning</p> <p>(Design, create, organise a fact sheet)</p>

Year 2

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
(Could a penguin live in the rainforest?)	(Would you rather live in New York or Doncaster?)	(Why did the Titanic sink?)	(Why did the Miners' strike?)	(Can you grow grass on Mars?)	(What came first, the chicken or the egg?)
<p>Use technology safely and respectfully, keeping personal information private; Identify where to go for help when they have concerns about content or contact on the internet or other online technologies.</p> <p>(ESafety – Hectors World)</p>	<p>Understanding what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Create and debug programmes.</p> <p>Use logical reasoning to predict the behaviour of simple programs</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content. (Explore BeeBots- enter and create command sequences)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>(Create diaries using various tools)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Recognise common uses of information technology beyond school.</p> <p>(I am Learning challenges, use of technology to research events and present findings)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Recognise common uses of information technology beyond school.</p> <p>Use technology safely and respectfully, keeping personal information private; Identify where to go for help when they have concerns about content or contact on the internet or other online technologies.</p> <p>(Purple Mash)</p>	<p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p> <p>Recognise common uses of information technology beyond school.</p> <p>Use technology safely and respectfully, keeping personal information private; Identify where to go for help when they have concerns about content or contact on the internet or other online technologies.</p> <p>(Purple Mash)</p>

