



Computing

Intent

At Burghclere Primary School, we want every child to use a wide range of technologies with skill, confidence, creativity and enthusiasm so they become active participants in an evolving digital world. We want every child to be aware of their digital footprint and to be responsible and safe in their use of technology and the internet. We want them to be critical thinkers and question the information they are presented with. Investing in high quality equipment is essential and the school uses Chromebooks, alongside an Interactive Whiteboard in every classroom and a set of I-pads, to use as key learning tools across the wider curriculum. In Year 5 and 6, children are involved in a project which enables the children to connect digitally with others around the globe supported by the use of a range of apps, making them true global citizens.

Implementation

The school uses the Purple Mash scheme of work which has a clear progression of knowledge, skills and vocabulary, and is taught through stimulating learning journeys which build on previous learning. There is a [Progression Overview](#) document and a [Scheme of Work](#) document which contain full details of our Computing curriculum. In addition to this we have identified additional computing learning- key pieces of technology/apps/programmes which we expect pupils to be taught to use with increasing confidence across the age ranges, we expect their use to increase year on year. This is not limited to the named websites and apps and will include many more dependent on the wider curriculum. Every lesson vocabulary previously taught in the unit is revisited before extending the children's knowledge to the new vocabulary they will encounter in the lesson. Purple Mash breaks down the necessary vocabulary into year groups so after a two year cycle all words will have been taught due to classes being mixed.

In addition to the scheme of work, internet safety is also taught through regular assemblies and annual Safer Internet Day initiatives.

Children in EYFS are given experiences with different technologies as appropriate to prepare them for learning in Year 1.

Children in Year 1- Year 6 have a dedicated computing lesson each week, taught by an HLTA with high subject specific knowledge.

Impact

The school will measure the impact of the computing curriculum through:

- The number of children meeting key objectives each year (see Purple Mash assessment guidance)

- The children's engagement and enthusiasm in computing activities (learning walks and through pupil discussions)
- The knowledge and skills children demonstrate in their learning
- The understanding children have, and demonstrate, in online safety

Additional Computing Learning

EYFS	Year 1/2	Year 3/4	Year 5/6
<p><i>The early learning goals that linked specifically to computing (EYFS technology) were removed from the EYFS Framework. Computing does however still have a place in early years. Here are some ways it may been seen:</i></p> <ul style="list-style-type: none"> • Children exploring and using cameras and tablets to take photographs. • Listening and watching animated stories on tablets and screens. • Using technology such as Bee-bots to learn about direction and position. • Watching videos and playing games. 	<ul style="list-style-type: none"> • Use of 'My Maths' and 'Spelling Shed' (yr2) programmes • Use of i-pads, computers, chromebooks and interactive whiteboard for a range of apps and programmes • Use websites to find information • To use Microsoft Word/Google Docs- open, save, print, change fonts and add a picture • Programme Bee-Bots • To use i-pads to take photos 	<ul style="list-style-type: none"> • To use 'Google' to search for information related to topics • To use Microsoft Power Point/Google Slides- open, save, print, change fonts, add a picture and use other basic functions to present information • To use i-pads to take photos and video recordings • To use green screen technology • Use TTRockstars, My Maths • To use a range of websites and apps to develop maths and English skills • To use Quizlet/Kahoot/Blooket • To use 3D Sketchup- CAD programme • Scratch Coding Club 	<ul style="list-style-type: none"> • To use Microsoft Excel/Google Sheets to input data • To use the Google classroom and other functions, including Sites, Slides, Docs, Meet, Gmail, Calendar on a Chromebook as a regular tool for learning • Partnership work with an international school (JDO Foundation) which includes regular live Google Meets and the Google classroom • Book Creator • Blooket • TT Rockstars • My Maths • EdShed • To use digital microscopes independently • Code for Life - Rapid Router • BEBRAS Computational

			Thinking competition (KS2) <ul style="list-style-type: none"> Scratch Coding Club
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Computing Vocabulary

Links for each year group attached below:

[Year 1](#)

[Year 2](#)

[Year 3](#)

[Year 4](#)

[Year 5](#)

[Year 6](#)

Key Online Safety Vocabulary for adults to refer to:

[Online Safety Glossary](#)

Computing Vocabulary Progression

Key Stage 1

English National Curriculum Objectives	Year 1	Year 2
Computer Science	algorithm avatar	algorithm avatar

<p>Understand 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 simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p>code computer create command organise sequence software store program</p>	<p>blocks code computer command debug execute manipulate organise scripted sequence software sprite store predict program retrieve</p>
<p>Information Technology</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p>	<p>digital content digital devices computer network</p>	<p>data digital content digital devices network</p>
<p>Digital Literacy</p> <p>Recognise common uses of information</p>	<p>personal information world wide web</p>	<p>password personal information private</p>

<p>technology beyond school</p> <p>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.</p>		<p>world wide web</p>
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Key Stage 2

English National Curriculum Objectives	Year 3	Year 4	Year 5	Year 6
<p>Design, write and debug programs that accomplish specific</p>	<p>algorithm avatar block</p>	<p>algorithm avatar block language</p>	<p>algorithm avatar block language</p>	<p>algorithm avatar block language</p>

<p>goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p>	<p>language code computer command debug execute input output loops manipulate organise program repetition scripted sequence simulation sprite software store program physical system repetition retrieve reverse engineer</p>	<p>code computer command collaboration debug encrypted execute HTTP input output loops manipulate organise program repetition scripted selection sequence simulation Sprite software store packets of data program physical system repetition retrieve URL</p>	<p>code computer command concatenation control collaboration debug decomposition encrypted execute HTTP input output loops manipulate organise program repetition scripted selection sequence simulation sprite software store packets of data program physical system repetition</p>	<p>code computer command concatenation control collaboration debug decomposition encrypted execute hardware HTTP input IP address output loops manipulate organise program repetition scripted selection sequence simulation sprite software store packets of data program</p>
<p>Use sequence, selection and repetition in programs; work with variables and various forms of input and output.</p>				
<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</p>				
<p>Understand computer networks, including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they</p>				

<p>offer for communication and collaboration.</p>			<p>retrieve URL</p>	<p>physical system repetition retrieve variables URL variables</p>
<p>Information Technology</p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>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,</p>	<p>data digital content digital devices network safe search mode search technologies software</p>	<p>cached collecting data digital content digital devices network safe search mode search technologies server software</p>	<p>cached collecting data digital content digital devices evaluating network safe search mode search technologies server software</p>	<p>cached collecting data digital content digital devices evaluating network safe search mode search technologies server software</p>

evaluating and presenting data and information.				
Digital Literacy Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	command evaluating digital content password personal information private world wide web	acceptable/unacceptable behaviours command evaluating digital content password personal information private world wide web	acceptable/unacceptable behaviours command encryption evaluating digital content password personal information private world wide web	acceptable/unacceptable behaviours command detect encryption evaluating digital content password personal information private responsibility world wide web

