



COMPUTING

This document shows how our Computing curriculum develops from Nursery to Year 2.

Intent: EYFS

In the Early Years Foundation Stage (Nursery and Reception) our focus for teaching and learning is on developing the children's hands-on experience with technology. Our children have been born into a technological world and so we use IT to support learning across the curriculum. This includes exploring programmable toys, mark making and completing games linked to learning on the interactive whiteboard both independently and collaboratively. E-Safety and ensuring children know how to be safe online at home and at school is a safeguarding priority in school. Our E-Safety policy can be found on our website under 'Our School – Statutory Policies'. To keep our children safe at school, our Internet is highly filtered by Udata.

	Learning experiences – implementation	Key vocabulary	Birth to 5 matters
Nursery	<ul style="list-style-type: none"> • Exploring toys that move in different ways (cause and effect) • Exploring technological toys with knobs, buttons and pulleys (cause and effect) • Using the interactive whiteboard for mark making • Exploring and interacting with books and toys that make sounds (pressing buttons, lifting flaps) • Exploring, investigating and using torches 	Computer, TV, mobile phone, camera, tablet, CD player, whiteboard, on/off, up/down, wind, turn, press	<p>Anticipates repeated sounds, sights and actions, e.g. when an adult demonstrates an action toy several times</p> <p>Shows interest in toys with buttons, flaps and simple mechanisms and begins to learn to operate them</p> <p>Seeks to acquire basic skills in turning on and operating some digital equipment</p> <p>Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car</p>
Reception	<ul style="list-style-type: none"> • Developing independence in selecting CDs and using the CD player to listen to music • Using the Interactive Whiteboard to play simple learning games in adult-led and child initiated learning • Exploring, investigating and using torches, household implements, pulleys, construction kits • Use I-pads to complete simple learning games, activities and research (2 Paint, CBeebies games) • Programming 'Beebots' (programmable toy) to follow simple instructions • Writing name with keyboard 	Electricity, button, press, mouse, Internet, click, search, forwards, backwards, left, right, turn, number names	<p>Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support</p> <p>Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets</p>

		<p>Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images</p> <p>Knows that information can be retrieved from digital devices and the internet</p> <p>Completes a simple program on electronic devices</p> <p>Uses ICT hardware to interact with age appropriate computer software</p> <p>Can create content such as a video recording, stories, and/or draw a picture on screen</p> <p>Develops digital literacy skills by being able to access, understand and interact with a range of technologies</p> <p>Can use the internet with adult supervision to find and retrieve information of interest to them</p>
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Intent: Year 1 and 2

As the children move into Key Stage 1, we build on and develop from their experiences in the EYFS. Some computing skills are taught discretely but teaching is frequently linked to experiences across the curriculum in order to provide opportunities for children to apply their developing computing skills in meaningful contexts for learning.

The National Curriculum Key Stage 1 programmes of study for Computing tell us:

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.

	Learning experiences – implementation	Key vocabulary	National Curriculum Programmes for Study for Key Stage 1
Year 1	<ul style="list-style-type: none"> • Specific E-safety units are delivered in both Year 1 and Year 2 to emphasize the importance of safety online at home and at school • Coding - Espresso Year 1 units: building and moving characters in a sequence of movements (algorithms) • Publishing – Using 2Publish to write non-chronological reports linked to topic. Creating message borders. 	<p>'Zip it! Block it! Flag it!' is our mantra to ensure pupils are safe both in school and out of school.</p> <p>Stranger danger, Internet, private, personal information, age appropriate</p> <p>Drag, right, left, click, double click, unit, character, move, instructions, algorithm</p> <p>Type, record, information, picture, caption, heading, sub-heading</p>	<ul style="list-style-type: none"> • 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. • 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.
Year 2	<ul style="list-style-type: none"> • E-safety - Playing age appropriate games, discussing online chat, closing and reporting inappropriate material (text and photos) • Coding - Espresso Year 2 units: building and moving characters in a sequence of movements (algorithms) • Researching - Researching for cross-curricular topic work using 'Espresso' • What are programs? 	<p>'Zip it! Block it! Flag it!' is our mantra to ensure pupils are safe both in school and out of school.</p> <p>Stranger danger, Internet, private, personal information, age appropriate, email, digital image, photograph.</p> <p>Icon, double click, open, document, type, keyboard, mouse,</p>	<ul style="list-style-type: none"> • 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. • use technology purposefully to create, organise, store, manipulate and retrieve digital content. • recognise common uses of information technology beyond school

	<ul style="list-style-type: none"> • Publishing and word processing - Using Microsoft Office to word process documents for a particular purpose e.g. Harvest invitation and prayer (Year 2 Harvest Festival) • Publishing and creating - Using 2 (paint/publish) to produce a creative response to artwork e.g. Rousseau 'Tiger in a thunderstorm'. 	<p>monitor, save, retrieve, close, drive, network.</p> <p>Technology, computing, research, Google, search, website, search engine.</p> <p>Paint, thin line, thick line, paint tools, spray can, fill, background, caption.</p>	
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