

# Computing in the Curriculum 2017-2018

Phase 1						
Y1/2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<p><b>1.6 We are celebrating</b> 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.</p>	<p><b>2.3 We are photographers</b> <b>Use technology</b> Co 4 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.</p>	<p><b>1.5 We are storytellers</b> 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.</p>	<p><b>2.1 We are astronauts</b> <b>Use technology</b> Co 4 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.</p>	<p><b>2.2 We are games testers</b> <b>Understand algorithms</b> Co 4 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private.</p>	<p><b>2.5 We are detectives</b> <b>Use technology, understand algorithms</b> Co 4 Co 1 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.</p>

Phase 2						
Y3/4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<p><b>4.2 We are software developers</b></p> <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> <li>- develop an educational computer game using selection and repetition</li> <li>- understand and use variables</li> <li>- start to debug computer programs</li> <li>- recognise the importance of user interface design, including consideration of input and output.</li> </ul>	<p><b>3.6 We are opinion pollsters</b></p> <p>Web browser Co 6 Google Co 4 Excel Word</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, evaluating and presenting data and information.</p> <p>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.</p>	<p><b>4. 3 We are toy designers</b></p> <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> <li>- design and make an on-screen prototype of a computer-controlled toy</li> <li>- understand different forms of input and output (such as sensors, switches, motors, lights and speakers)</li> <li>- design, write and debug the control and monitoring program for their toy.</li> </ul>	<p><b>4.4 We are musicians</b></p> <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> <li>- use one or more programs to edit music</li> <li>- create and develop a musical composition, refining their ideas through reflection and discussion</li> <li>- develop collaboration skills</li> </ul> <p><i>develop an awareness of how their composition can enhance work in other media.</i></p>	<p><b>3.4 / 4.4 We are presenters / We are meteorologists</b></p> <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> <li>- understand different measurement techniques for weather, both analogue and digital</li> <li>- use computer-based data logging to automate the recording of some weather data</li> <li>- use spreadsheets to create charts</li> <li>- analyse data, explore inconsistencies in data and make predictions practise using presentation software and, optionally, video.</li> </ul>	<p><b>3.2 We are bug fixers</b></p> <p>Scratch Co 1 Screen-o-matic Co 2 Debug programs that accomplish specific goals.</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>

Phase 3						
Y5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<p><b>5.5 We are bloggers</b></p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities</p>	<p><b>5.2 We are cryptographers</b></p> <p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p><b>5.1 We are game developers</b></p> <p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing</p>	<p><b>5.4 We are web developers</b></p> <p>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities</p>	<p><b>5.3 We are artists</b></p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</p>	<p><b>5.6 We are architects</b></p> <p>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p>

	<p>they offer for communication and collaboration.</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, evaluating and presenting data and information.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p> <p>... be discerning in evaluating digital content.</p>	<p>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.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>them into smaller parts. 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>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 ...</p>	<p>they offer for communication and collaboration.</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, evaluating and presenting data and information.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</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, evaluating and presenting data and information.</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, evaluating and presenting data and information.</p>
Y6	<p><b>Autumn 1</b></p> <p><b>6.1 We are app planners</b> <i>This unit will enable the children to:</i> -develop an awareness of the capabilities of smartphones and tablets -understand geolocation, including GPS</p>	<p><b>Autumn 2</b></p> <p><b>6.2 We are project managers.</b> <i>This unit will enable the children to:</i> -scope a project to identify different components that must be successfully combined</p>	<p><b>Spring 1</b></p> <p><b>6.3 We are market researchers</b> <i>This unit will enable the children to:</i> -create a set of good survey questions</p>	<p><b>Spring 2</b></p> <p><b>6.4 We are interface designers</b> <i>This unit will enable the children to:</i> -work collaboratively to design the app's interface -use wire framing tools to create a design prototype</p>	<p><b>Summer 1</b></p> <p>App Inventor Co1 Touch Develop Co2</p>	<p><b>Summer 2</b></p> <p><b>6.5 We are app developers</b> Google Apps for Education Co1 Co 6 <i>This unit will enable the children to:</i></p>

	<ul style="list-style-type: none"> <li>-identify interesting, solvable problems</li> <li>evaluate competing products</li> <li><i>pitch a proposal for a smartphone or tablet app.</i></li> </ul>	<ul style="list-style-type: none"> <li>-identify their existing talents and plan how they can develop further knowledge and skills</li> <li>-identify the component tasks of a project and develop a timeline to track progress</li> <li>-identify the resources they'll need to accomplish a project</li> <li>-use web-based research skills to source tools, content and other resources</li> <li>consider strategies to ensure the quality of a collaborative project.</li> </ul>	<ul style="list-style-type: none"> <li>-analyse the data obtained from a survey</li> <li>-work collaboratively to plan questions</li> <li>-conduct an interview or focus group</li> <li>-analyse and interpret the information obtained from interviews or a focus group</li> <li>-present their research findings. (<i>Link to Maths</i>)</li> </ul>	<ul style="list-style-type: none"> <li>of their app</li> <li>-develop or source the individual interface components (media assets) they will use</li> <li>address accessibility and inclusion issues</li> <li>-document their design decisions and the process they have followed.</li> </ul>		<ul style="list-style-type: none"> <li>-become familiar with another programming toolkit or development platform</li> <li>-import existing media assets to their project</li> <li>write down the algorithms for their app</li> <li>-program, debug and refine the code for their app</li> <li>thoroughly test and evaluate their app.</li> </ul> <p><b>6.6 We are marketers</b></p> <p><i>This unit will enable the children to:</i></p> <ul style="list-style-type: none"> <li>-consider key marketing messages, including</li> <li>-identifying a unique selling point</li> <li>develop a printed flyer or brochure</li> <li>-incorporating text and images</li> <li>further develop knowledge, skills and understanding in</li> <li>-relation to creating a website</li> <li>further develop skills relating to shooting and editing video.</li> </ul>
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