

## Key Skills

Basic Computer Use /  
How a Computer Works,  
E-safety, Creating and  
Debugging

## Computing

Computing skills should be taught when linked to topics  
where possible to ensure real world application  
Topics are taught on a 2 year rolling programme



NC statutory requirement Skills Knowledge

	EYFS		KS1		LKS2		UKS2	
	Nursery & Reception		Year 1 & Year 2		Year 3 & Year 4		Year 5 & Year 6	
	Year A	Year B	Year A	Year B	Year A	Year B	Year A	Year B
Computing Systems and Networks	To explore physical resources, such as keyboards in play;		To name examples of technology and how it helps us;	To label the main parts of a laptop and computer;	To name digital inputs and outputs;	To understand what the World Wide Web is made up of;	To describe inputs, processes and outputs;	To explain how data is transferred over the internet in packets;
	To use technology to learn and play, for example interactive white boards;		To switch on and log on, click and drag with a mouse, type and delete with a keyboard and use the arrow keys to move the cursor;	To switch on and log on, click and double click with the mouse, start-up applications, save, find and open documents and become familiar with the keyboard;	To identify how digital devices help us;	To continue to practise the basic skills of a computer, as well as sharing documents with others;	To refine and compare web searches, considering their reliability;	To send information over the internet in different ways and to access shared files stored online;
			To develop some paint tools, such as drawing lines and shapes, creating colourful dots and changing the brush size and colour;	To use a custom search engine;	To use search engines to find specific information;	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;	To store, retrieve and export recordings;	To know that websites are written in HTML;
			To control a programmable toy using a sequence of instructions;	Recognise common uses of information technology beyond school.	To continue to practise the basic skills of a computer, as well as sharing documents with others;		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;	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for
			Recognise common uses of information		Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and		Use search technologies	

		technology beyond school.		the opportunities they offer for communication and collaboration.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	communication and collaboration;  Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	
	EYFS		KS1		LKS2		UKS2	
	Nursery & Reception		Year 1 & Year 2		Year 3 & Year 4		Year 5 & Year 6	
	Year A	Year B	Year A	Year B	Year A	Year B	Year A	Year B
Creating Media			<div>To create a picture using a mouse;</div> <div>To create a picture (recreating an artist) using the paint tools, by making marks, drawing lines and making shapes.</div> <div>Use technology purposefully to create, organise, store, manipulate and retrieve digital content;</div> <div>Create and debug simple programs.</div>	<div>To create a chart;</div> <div>To take and edit photographs;</div> <div>To create a Google Slides presentation, presenting their findings;</div> <div>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</div>	<div>To use the following tools when photo editing - rotate, crop, clone and combine;</div> <div>To use some of Google Slide's tools, e.g. inserting images from the web;</div> <div>To present weather data using a method of choice;</div> <div>Select, use and combine a variety of software (including internet services) on a range of digital</div>	<div>To create stop-frame animations;</div> <div>To identify and compare features of videos;</div> <div>To experiment with filming techniques, such as camera angles and microphones;</div> <div>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</div>	<div>To create vector drawings by resizing, rotating, duplicating, zooming, aligning and modifying;</div> <div>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;</div> <div>Select, use and combine a variety of software (including internet services) on a</div>	<div>To add content to, preview and evaluate a webpage;</div> <div>To create hyperlinks to other people's work;</div> <div>To add, resize, lift, lower, group, duplicate and recolour 3D objects;</div> <div>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a</div>

					<p>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>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p>	content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	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.	range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
	<b>EYFS</b>		<b>KS1</b>		<b>LKS2</b>		<b>UKS2</b>	
	<b>Nursery &amp; Reception</b>		<b>Year 1 &amp; Year 2</b>		<b>Year 3 &amp; Year 4</b>		<b>Year 5 &amp; Year 6</b>	
	<b>Year A</b>	<b>Year B</b>	<b>Year A</b>	<b>Year B</b>	<b>Year A</b>	<b>Year B</b>	<b>Year A</b>	<b>Year B</b>
Programmin g			<p>To give a series of instructions to a programmable toy;</p> <p>To learn about some of the Scratch Jnr tools and use these to predict, and then create their own algorithm;</p>	<p>To debug a photograph using tools learnt;</p> <p>Create and debug simple programs;</p> <p>Use logical reasoning to predict the behaviour of simple programs;</p>	<p>To build a simple Scratch simulation, using functions such as the pen;</p> <p>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output;</p>	<p>To programme an conversation animation in Scratch, switching costumes and backdrops;</p> <p>To code a Micro:Bit;</p> <p>Design, write and debug programs</p>	<p>To create sequences using a programmable device;</p> <p>To design the flow of a program that uses the condition 'if...then...else'.</p> <p>To implement and debug algorithms;</p>	<p>To improve a game by using variables;</p> <p>To create algorithms and artwork for a project;</p> <p>Design, write and debug programs that accomplish specific goals,</p>

		<p>Use logical reasoning to predict the behaviour of simple programs;</p> <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>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>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p>	<p>that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;</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>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</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>including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;</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>	
	EYFS		KS1		LKS2		UKS2	
	Nursery & Reception		Year 1 & Year 2		Year 3 & Year 4		Year 5 & Year 6	
	Year A	Year B	Year A	Year B	Year A	Year B	Year A	Year B
Data and Information			<p>To count and group objects based on their properties;</p> <p>To record and share findings;</p>	<p>To use a classification key and branching database;</p> <p>To create a chart using data collected;</p>	<p>To collect and present data about the weather using Google Sheets;</p> <p>To start to use physical systems,</p>	<p>To create a branching database;</p> <p>To compare branching databases;</p>	<p>To navigate flat-file databases;</p> <p>To refine data and create charts;</p> <p>Use search</p>	<p>To enter and format data, as well as calculating further data using formula;</p> <p>Select, use and combine a variety</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>To add location markers to Google Maps;</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>such as Micro:Bits and data loggers;</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>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>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>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>	
	EYFS		KS1		LKS2		UKS2	
	Nursery & Reception		Year 1 & Year 2		Year 3 & Year 4		Year 5 & Year 6	
	Year A	Year B	Year A	Year B	Year A	Year B	Year A	Year B
	Listen to, understand and discuss an e-safety story each term to introduce the key ideas.		Listen to, understand and discuss an e-	To know some of the dangers online;	To know some of the dangers online;	To understand some of the negative	To understand some of the negative	To know what you should and should not post online;

E-safety		<p>safety story each term to introduce the key ideas.;</p> <p><i>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.</i></p>	<p>To know who to tell if something does not feel right;</p> <p>To know what some of our personal information is and the importance of not sharing it;</p> <p><i>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.</i></p>	<p>To know who to tell if something does not feel right;</p> <p>To know what some of our personal information is and the importance of not sharing it;</p> <p><i>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.</i></p>	<p>behaviours online;</p> <p>To tell others how to stay safe online;</p> <p>To start to learn about what is safe to post online;</p> <p>To know how to report negative behaviour;</p> <p><i>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour.</i></p>	<p>behaviours online;</p> <p>To tell others how to stay safe online;</p> <p>To start to learn about what is safe to post online;</p> <p>To know how to report negative behaviour;</p> <p><i>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour.</i></p>	<p>To begin to understand what is meant by a digital footprint;</p> <p>To learn about terms, such as catfishing and scamming, and some of the reasons a person might do it;</p> <p>To know a number of ways to report negative behaviour;</p> <p><i>Identify a range of ways to report concerns about content and contact;</i></p> <p><i>Use technology safely, respectfully and responsibly. Recognise acceptable/unacceptable behaviour.</i></p>
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Blue text signifies statutory requirement.