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		K	51	LK	.52	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 keyboards in play; To use technology t for example interac	resources, such as	To name examples of technology and how it helps us;  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 label the main parts of a laptop and computer;  To switch on and log on, click and double click with the mouse, start-up applications, save, find and open documents and become	To name digital inputs and outputs;  To identify how digital devices help us;  To use search engines to find specific information;	To understand what the World Wide Web is made up of;  To continue to practise the basic skills of a computer, as well as sharing documents with	To describe inputs, processes and outputs;  To refine and compare web searches, considering their reliability;  To store, retrieve and export	To explain how data is transferred over the internet in packets;  To send information over the internet in different ways and to access shared files	
			To develop some paint tools, such as drawing lines and shapes, creating colourful dots and changing the brush size and colour;  To control a programmable toy using a sequence of instructions;  Recognise common uses of information	familiar with the keyboard;  To use a custom search engine;  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	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;	recordings;  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;  Use search technologies	stored online;  To know that websites are written in HTML;  Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for	

			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.
		'FS		51		52		.s2
	•	Reception		& Year 2		& Year 4		& Year 6
	Year A	Year B	Year A To create a	Year B To create a chart;	Year A To use the	Year B To create stop-	Year A  To create vector	Year B To add content
Creating Media			picture using a mouse;  To create a picture (recreating an artist) using the paint tools, by making marks, drawing lines and making shapes.  Use technology purposefully to create, organise, store, manipulate and retrieve digital content;  Create and debug simple programs.	To take and edit photographs;  To create a Google Slides presentation, presenting their findings;  Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	following tools when photo editing - rotate, crop, clone and combine;  To use some of Google Slide's tools, e.g. inserting images from the web;  To present weather data using a method of choice;  Select, use and combine a variety of software (including internet	frame animations;  To identify and compare features of videos;  To experiment with filming techniques, such as camera angles and microphones;  Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of	drawings by resizing, rotating, duplicating, zooming, aligning and modifying;  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts;  Select, use and combine a variety of software	to, preview and evaluate a webpage;  To create hyperlinks to other people's work;  To add, resize, lift, lower, group, duplicate and recolour 3D objects;  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;  Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	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.
	EY	FS	Ks	⊥ 51	•	.52	Uk	(52
_		Reception		& Year 2		& Year 4		& Year 6
	Year A	Year B	Year A	Year B	Year A	Year B	Year A	Year B
Programmin g			To give a series of instructions to a programmable toy;  To learn about some of the Scratch Jnr tools and use these to predict, and then create their own algorithm;	To debug a photograph using tools learnt;  Create and debug simple programs;  Use logical reasoning to predict the behaviour of simple programs;	To build a simple Scratch simulation, using functions such as the pen;  Use sequence, selection, and repetition in programs; work with variables and various forms of input and output;	To programme an conversation animation in Scratch, switching costumes and backdrops;  To code a Micro:Bit;  Design, write and debug programs	To create sequences using a programmable device;  To design the flow of a program that uses the condition 'ifthenelse'.  To implement and debug algorithms;	To improve a game by using variables;  To create algorithms and artwork for a project;  Design, write and debug programs that accomplish specific goals,

			Use logical reasoning to	Understand what algorithms are,	Use logical	that accomplish specific goals,	Use sequence,	including controlling or
			predict the	how they are	reasoning to	including	selection, and	simulating
			behaviour of	implemented as	explain how some	controlling or	repetition in	physical systems;
			simple programs;	programs on	simple algorithms	simulating	programs; work	solve problems by
				digital devices,	work and to	physical systems;	with variables and	decomposing them
			Understand what	and that	detect and	solve problems by	various forms of	into smaller parts;
			algorithms are;	programs execute	correct errors in	decomposing them	input and output;	
			how they are	by following	algorithms and	into smaller parts;		Use sequence,
			implemented as	precise and	programs.		Use logical	selection, and
			programs on	unambiguous		Use sequence,	reasoning to	repetition in
			digital devices;	instructions.		selection, and	explain how some	programs; work
			and that			repetition in	simple algorithms	with variables and
			programs execute			programs; work	work and to	various forms of
			by following			with variables and	detect and	input and output;
			precise and			various forms of	correct errors in	
			unambiguous			input and output;	algorithms and	Use logical
			instructions.			11. 1 2 1	programs;	reasoning to
						Use logical	Nadian umika and	explain how some
						reasoning to	Design, write and	simple algorithms
						explain how some	debug programs	work and to detect and
						simple algorithms work and to	that accomplish	
							specific goals,	correct errors in
						detect and	including	algorithms and
						correct errors in	controlling or simulating	programs.
						algorithms and	•	
						programs.	physical systems; solve problems by	
							decomposing them	
							into smaller parts.	
	EY	FS	K	51	Lk	352	·	252
	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			To count and	To use a	To collect and	To create a	To navigate flat-	To enter and
Informatio			group objects	classification key	present data	branching	file databases;	format data, as
n			based on their	and branching	about the	database;		well as calculating
			properties;	database;	weather using		To refine data	further data
					Google Sheets;	To compare	and create	using formula;
			To record and	To create a chart		branching	charts;	
			share findings;	using data	To start to use	databases;		Select, use and
				collected;	physical systems,		Use search	combine a variety

			range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	
EYFS						352
Jursery & Reception						& Year 6
ar A Year B	Year A	Year B	Year A	Year B	Year A	Year B
o, understand and discuss an e-	Listen to,	To know some of	To know some of	To understand	To understand	To know what you
story each term to introduce	understand and	the dangers	the dangers	some of the		should and should
ideas.	discuss an e-		1.10 daily 51 3	221110 01 1110	1 221112 21 1116	Silvara and Silvara
3	lursery & Reception ar A Year B o, understand and discuss an e- story each term to introduce	lursery & Reception Year 1  ar A Year B Year A  o, understand and discuss an e- Listen to,	lursery & Reception  Ar A Year B  O, understand and discuss an e- Listen to,  To know some of	programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  EYFS  KS1  LK  Jursery & Reception  Year 1 & Year 2  Year 3  A Year B  Year A  Year B  Year A  To know some of  To know some of	EYFS KS1 LKS2  Jursery & Reception Year 1 & Year 2 Year 3 & Year 4  To know some of To know some of To understand  programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  EYFS KS1 LKS2  Year 3 & Year 4  Year B Year A Year B  To know some of To know some of To understand	programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.  EYFS KS1 LKS2 Uk  Usery & Reception Year 1 & Year 2 Year 3 & Year 4 Year 5 or A Year B Year A Year B Year A or understand and discuss an e- Listen to, To know some of To know some of To understand  programs, systems and collecting, analysing, evaluating and presenting data and information.  LKS2 Uk  Uk  Year 3 & Year 4 Year 5 or A Year B Year A Year B Year A To understand  To understand

E-safety	safety story each			behaviours online;	behaviours online;	
<b>'</b>	term to introduce	To know who to	To know who to			To begin to
	the key ideas.;	tell if something	tell if something	To tell others how	To tell others how	understand what
		does not feel	does not feel	to stay safe	to stay safe	is meant by a
	Use technology	right;	right;	online;	online;	digital footprint;
	safely and					
	respectfully,	To know what	To know what	To start to learn	To start to learn	To learn about
	keeping personal	some of our	some of our	about what is	about what is	terms, such as
	information	personal	personal	safe to post	safe to post	catfishing and
	private; identify	information is and	information is and	online;	online;	scamming, and
	where to go for	the importance of	the importance of			some of the
	help and support	not sharing it;	not sharing it;	To know how to	To know how to	reasons a person
	when they have			report negative	report negative	might do it;
	concerns about	Use technology	Use technology	behaviour;	behaviour;	
	content or	safely and	safely and			To know a number
	contact on the	respectfully,	respectfully,	Use technology	Use technology	of ways to report
	internet or other	keeping personal	keeping personal	safely,	safely,	negative
	online	information	information	respectfully and	respectfully and	behaviour;
	technologies.	private; identify	private; identify	responsibly.	responsibly.	
		where to go for	where to go for	Recognise	Recognise	Identify a range
		help and support	help and support	acceptable/unacc	acceptable/unacc	of ways to report
		when they have	when they have	eptable behaviour.	eptable behaviour.	concerns about
		concerns about	concerns about			content and
		content or	content or			contact;
		contact on the	contact on the			
		internet or other	internet or other			Use technology
		online	online			safely,
		technologies.	technologies.			respectfully and
						responsibly.
						Recognise
						acceptable/unacc
						eptable behaviour.

Blue text signifies statutory requirement.