

Overview with links to the National Curriculum KS1 Year One

Topic title/when taught:	Aims and objectives:	National Curriculum links:
Autumn Technology around us	 To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type on a computer To use the keyboard to edit text To create rules for using technology responsibly 	Use technology safely and respectfully Recognise common uses of information technology beyond school 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
Spring Moving a robot Beebot	 To explain what a given command will do To act out a given word To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To plan a simple program 	Use technology safely and respectfully To recognise that programs execute by following precise and

	To find more than one solution to a problem	unambiguous instructions Create and debug simple programs Use logical reasoning to
		predict the behaviour of simple programs
Summer Programming animations tablet	 To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instructions To design the parts of a project To use my algorithm to create a program 	Use technology safely and respectfully To understand what algorithms are To understand how algorithms are implemented as programs

KS1 Year Two

Topic title/when	Aims and objectives:	National Curriculum
taught:		links:
Autumn	To use a digital device to take a photograph	Use technology
Creating media-	To make choices when taking a photograph	purposefully to create,
Digital photography	To describe what makes a good photograph	organise, store,
	To decide how photographs can be improved	manipulate and retrieve
	To use tools to change an image	digital content.
	To recognise that photos can be changed	
Spring	• To recognise that we can count and compare objects using tally charts	Use logical reasoning to
Data and	To recognise that objects can be represented as pictures	predict the behaviour of
information-	To create a pictogram	simple programs
pictograms	To select objects by attribute and make comparisons	

	 To recognise that people can be described by attributes To explain that we can present information using a computer 	
Summer Programming A- Robot algorithms	 To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written 	Understand what algorithms are, how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.

LKS2 Year Three

Topic title/when taught:	Aims and objectives:	National Curriculum links:
Autumn Connecting computers	 To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way we work To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network 	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
Spring Sequencing sounds	 To explore a new programming environment To identify that commands have an outcome 	use sequence, selection, and repetition in

	 To explain that a program has a start To recognise that a sequence of commands can have an order To change the appearance of my project To create a project from a task description 	programs; work with variables and various forms of input and output
Summer Desktop publishing	 To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publishing publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing 	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

LKS2 Year Four

Topic title/when	Aims and objectives:	National Curriculum
taught:		links:
Autumn	 To describe how networks physically connect to other networks 	use technology safely,
Computing Systems	 To recognise how networked devices make up the internet 	respectfully and
and Networks – The	• To outline how websites can be shared via the World Wide Web (WWW)	responsibly; recognise
Internet	• To describe how content can be added and accessed on the World	acceptable/unacceptable
	Wide Web (WWW)	behaviour; identify a
	 To recognise how the content of the WWW is created by people 	range of ways to report
	 To evaluate the consequences of unreliable content 	

		concerns about content and contact. 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
Spring Programming A – Repetition in Shapes	 To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a task into small steps To create a program that uses count-controlled loops to produce a given outcome 	design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
Summer Creating Media –	 To explain that the composition of digital images can be changed To explain that colours can be changed in digital images 	select, use and combine a variety of software
Photo Editing	 To explain how cloning can be used in photo editing To explain that images can be combined 	services) on a range of

 To combine images for a purpose 	digital devices to design
 To evaluate how changes can improve an image 	and create a range of
	programs, systems and
	content that accomplish
	given goals, including
	collecting, analysing,
	evaluating and presenting
	data and information.
	Use technology safely,
	respectfully and
	responsibly; recognise
	acceptable/unacceptable
	behaviour; identify a
	range of ways to report
	concerns about content
	and contact

UKS2 Year Five

Topic title/when	Aims and objectives:	National Curriculum
taught:		links:
Autumn	• To explain that computers can be connected together to form systems	understand computer
Systems and	To recognise the role of computer systems in our lives	networks including the
Searching	To experiment with search engines	internet; how they can
	To describe how search engines select results	provide multiple services,
	To explain how search results are ranked	such as the world wide
	• To recognise why the order of results is important, and to whom	web; and the
		opportunities they offer

		for communication and collaboration
Spring Video Production	 To explain what makes a video effective To identify digital devices that can record video To capture video using a range of techniques To create a storyboard To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video 	use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. 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. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
Selection in quizzes	• To explain now selection is used in computer programs	programs that

 To relate that a conditional statement connects a condition to an 	accomplish specific
outcome	goals, including
 To explain how selection directs the flow of a program 	controlling or simulating
 To design a program which uses selection 	physical systems; solve
To create a program which uses selection	problems by
To evaluate my program	decomposing them into
	smaller parts. Use
	sequence, selection, and
	repetition in programs,
	work with variables and
	various forms of input
	and output. Use logical
	reasoning to explain how
	some simple algorithms
	work and to detect and
	correct errors in
	algorithms and programs
	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

<u>UKS2 Year Six</u>

Topic title/when	Aims and objectives:	National Curriculum
taught:		links:
Autumn	 To explain the importance of internet addresses 	understand computer
Communication and	 To recognise how data is transferred across the internet 	networks including the
Collaboration	• To explain how sharing information online can help people to work	internet; how they can
	together	provide multiple services,
	 To evaluate different ways of working together online 	such as the world wide
	 To recognise how we communicate using technology 	web; and the
	To evaluate different methods of online communication	opportunities they offer
		for communication and
		collaboration
		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.
		Use technology safely,
		respectfully and
		responsibly; recognise
		acceptable/unacceptable
		behaviour; identify a

		range of ways to report
		concerns about content
		and contact.
Spring	 To review an existing website and consider its structure 	Use search technologies
Web Creation	 To plan the features of a web page 	effectively, appreciate
	 To consider the ownership and use of images (copyright) 	how results are selected
	 To recognise the need to preview pages 	and ranked, and be
	To outline the need for a navigation path	discerning in evaluating
	• To recognise the implications of linking to content owned by other	digital content. Select,
	people	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.
		Use technology safely,
		respectfully and
		responsibly; recognise
		acceptable/unacceptable
		behaviour; identify a
		range of ways to report
		concerns about content
		and contact.

Summer	 To create a program to run on a controllable device 	design, write and debug
Sensing Movement	 To explain that selection can control the flow of a program 	programs that
	 To update a variable with a user input 	accomplish specific
	• To use a conditional statement to compare a variable to a value	goals, including
	• To design a project that uses inputs and outputs on a controllable	controlling or simulating
	device	physical systems; solve
	• To develop a program to use inputs and outputs on a controllable	problems by
	device	decomposing them into
		smaller parts use
		sequence, selection, and
		repetition in programs;
		work with variables and
		various forms of input
		and output. Use logical
		reasoning to explain how
		some simple algorithms
		work and to detect and
		correct errors in
		algorithms and programs
		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