

Scheme Overview

DL = Digital Literacy

CS = Computer Science

IT = Information Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	IT	CS	CS	IT	DL	IT/DL
	<p>Composing Emails</p> <p>Pupils will explore the different advanced features of Microsoft Word. They will also use these skills to compose an email.</p>	<p>Introduction to Scratch</p> <p>Pupils will learn how to program sprites using a range of blocks to add animation, sound and other effects</p>	<p>Prediction and Debugging</p> <p>Pupils will learn how to use prediction when coding to test and debug written programs.</p>	<p>Altering Media</p> <p>Pupils to look at the skills behind taking a good photograph and how these photos can be edited in various ways.</p>	<p>Smarter Searching and Online Safety</p> <p>Pupils to gain awareness of the best ways to use a search engine and to continue to develop awareness of online dangers.</p>	<p>Publishing Online Content</p> <p>Pupils will be introduced to graphic design, marketing, and will develop their publishing skills.</p>
YEAR 3 / 4	Skills Progression					
	<ul style="list-style-type: none"> • Understand the difference between data and information. • Be able to effectively use a spell checker. • Children consider their responsibilities and actions to others online. • Understand how to use a search engine responsibly and safely. • Save and retrieve work online, on the school network and their own device 	<ul style="list-style-type: none"> • Understand how an algorithm is implemented using a sequence of precise instructions. • Can predict the outcome of a sequence of precise instructions. • Repeatedly test a program and recognise when they need to debug it. • Detect a problem in an algorithm, which could result in a different outcome to the one intended. • Understand what inputs and outputs are, how they can be used. 	<ul style="list-style-type: none"> • Understand how an algorithm is implemented using a sequence of precise instructions. • Can predict the outcome of a sequence of precise instructions. • Repeatedly test a program and recognise when they need to debug it. • Detect a problem in an algorithm, which could result in a different outcome to the one intended. • Designs, writes, executes and debugs programs of increasing complexity that 	<ul style="list-style-type: none"> • Children consider that all of the media they see could have been altered. • Save and retrieve work online, on the school network and their own device. • Think about whether they can use images that they find online in their own work. 	<ul style="list-style-type: none"> • Understand that media can be edited online for advertising and other purposes. • Recognise what is acceptable and unacceptable behaviour when using online services • Understand that attachments may harm our computers and some messages may be “too good to be true”. • Know how to send an email to a known person sensibly and responsibly. 	<ul style="list-style-type: none"> • Combine a mixture of text, graphics and sound to share ideas and learning. • Use appropriate keyboard commands to amend text. • Be able to effectively use a spell checker. • Evaluate their work and improve its effectiveness. • Use an appropriate tool to share their work online.

		<ul style="list-style-type: none"> • Provide examples of how to use inputs and outputs effectively. • Designs, writes, executes and debugs programs of increasing complexity that accomplish a specific goal. • Use logical reasoning to predict and debug more complex programs including inputs and outputs. 	<p>accomplish a specific goal.</p> <ul style="list-style-type: none"> • Use logical reasoning to predict and debug more complex programs. 			
National Curriculum Strands						
	<ul style="list-style-type: none"> • To 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 • To 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 	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts • Use sequence ... in programs; work with variables and various forms of input and output. • Use logical reasoning to detect and correct errors in algorithms and programs • Select, use and combine a variety of software ... to design and create ... content that accomplish(es) given goals, including ... presenting ... information 	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by 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 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Use technology safely, respectfully and responsibly • Recognise acceptable /unacceptable behavior • Identify a range of ways to report concerns about content and contact 	<ul style="list-style-type: none"> • To 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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	IT	CS	CS	IT	CS	IT
	Create & Search Database Pupils will use Excel to create and search a database.	Using Variables Pupils identify different types of variables. what conditionals are and understand how variables are used in computer programming.	Coding Using Micro:Bits Pupils to program Micro:Bit to make a variety of practical and usable devices.	Stop Motion Animation Pupils will learn about all aspects of stop frame animation. They will storyboard their own story before using a software package to create their own stop frame animation.	The Internet & The World Wide Web In this unit the children will learn the difference between the WWW and the internet. They will also understand what is meant by IP address.	3D Modelling Children will learn to design models using online CAD software.
	Skills Progression					
YEAR 5 / 6	<ul style="list-style-type: none"> • Use a spreadsheet and database to collect, record and evaluate data. 	<ul style="list-style-type: none"> • Use a variable to increase programming possibilities. • Use a variable and relational operators (e.g. < = >) within a loop to stop a program. • Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that program. • Use logical reasoning to predict and debug more complex programs including: selection, variables and operators 	<ul style="list-style-type: none"> • To program a Micro:Bit to display a message or design using scroll and forever loops. • To program an event based on an input • To create a variable • To program a variable to be randomly selected • To control variables based on conditional algorithms 	<ul style="list-style-type: none"> • Select, use and combine the appropriate technology tools to create effects in media. • Select an appropriate online or offline tool to create and share ideas • Understand the dangers of building online relationships. 	<ul style="list-style-type: none"> • Be aware of what a digital footprint is. • Know difference between Internet and the Worldwide Web • Know what a network is and be able to identify parts of a network within their school • Understand how data transfers through networks. • To understand what an IP address is. 	<ul style="list-style-type: none"> • Use different online tools for different purposes. • Be able to use a variety of familiar and unfamiliar software by using a pre-existing skill set • Select, use and combine the appropriate technology tools to create effects in media.
	National Curriculum Strands					

	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including • Controlling or simulating physical systems; solve problems by 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 	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • Use sequence, selection, and repetition in programs; work with variables and various forms of input and output 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Use technology safely respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report 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 	<ul style="list-style-type: none"> • 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
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