

Computing Curriculum Plan 2021/2022

Digital Literacy

Computer Science

Information Technology

<u>EYFS</u>							
Autumn 1	Digital Cameras / iPads: Select and use technology for purposes						
Autumn 2	Paint: Firework pictures.						
Spring 1	BeeBots: Program physical robots and other remote-controlled devices						
Spring 2	Smartie Penguin / Chicken						
Summer 1							
Summer 2	Clicker 7/Word- processing skills						
<u>Year 1</u>							
Autumn 1	I can talk about how to keep myself safe on the internet.	I can understand how to be safe on the internet.	To use technology safely and respectfully.	To understand what personal information is.	To learn how to keep personal information private.	To identify where to go for help and support when they have concerns about content.	To identify understand how to be safe online.
Autumn 2							
Spring 1	To know when and why to take breaks from device time.	To consider the feelings of people around them, even when engaged in fun online activities.	To recognise common uses of IT around school. To think about the uses of IT outside the home.	To recognise common uses of IT at home.	To think about different things that computers/Ipads are used for.		

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Spring 2	To use an I pad to take a range of photos on our photo scavenger hunt.	To use an Ipad to take a photo and store the photo on See-saw. To retrieve the photo from see-saw to show the rest of the class and talk about their photo.	To show children simple photography techniques.	To take our own forced perceptive shots. To be able to comment on each-others photos using See-saw.			
Summer 1	To use technology purposefully to manipulate and retrieve digital content. Children will learn how to move the cursor and click using a trackpad.	To use technology safely and respectfully. Children will learn to turn on and shutdown computing equipment safely.	To use technology safely and respectfully. Children will learn to save and open files in their folder.	To use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of using a word processing application to type a simple sentence.	To use technology purposefully to create, organise, store, manipulate and retrieve digital content in the context of painting using a simple computer program.		
Summer 2	To physically follow a sequence of instructions	To create an algorithm to execute a	To begin to predict what will happen for a short	To begin to identify an algorithm to achieve a	To understand that programs execute by following precise and ambiguous	To use Computer Science vocabulary	To use Computer Science vocabulary

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	To give others a sequence of instructions to move around	program on a digital device To know what is meant by the term 'algorithm'	sequence of instructions in a program	specific purpose To predict outcomes from sequences	instructions. To begin to use software to create movement and patterns on a screen	To create simple programs	To debug simple programs
Year 2							
Autumn 1	To understand what algorithms are. To understand that programs execute by following precise and unambiguous instructions. To use logical reasoning to predict the behaviour of simple programs (algorithms).	To record an algorithm for a travel sequence using technology purposefully. To understand that algorithms are implemented as programs on digital devices	To debug and evaluate a simple program and compare it with their video. To use logical reasoning to predict the behaviour of simple programs (dance sequences). To understand algorithms with repeated moves.	To write algorithms with repeated moves for a program based on a theme (dances). To understand that algorithms are implemented as programs on digital devices (converting algorithms to scratch jnr code).	To add extra effects to a completed program. To debug and evaluate a simple program and compare it with a real video.	To use technology purposefully to publish and present digital content (Publishing and resending learning about algorithms).	
Autumn 2							

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Spring 1	To explore different strategies for researching using digital media.	To use search for information safely online.	To use search for information safely online. To explore different ways of manipulating digital content using book creator.	To organise ideas for a presentation. To create a simple presentation with text.	To add and format an image for a presentation.	To reorder slides and add simple animations to a presentation.	To present a presentation. To search and print slides.
Spring 2	To understand what algorithms are. To use logical reasoning to predict what might happen in a program. To record an algorithm for a travel sequence using technology purposefully.	To implement their algorithms in to a program. To understand how algorithms are implemented as programs. To debug and evaluate their program and compare it with their video.	To decompose a simple moving game. To design an algorithm to make a sprite move.	To design a program for a moving space-ship game using skills taught.	To design a program for a moving space-ship game using skills taught.	To evaluate and present games suggesting improvements.	To understand what algorithms are. To use logical reasoning to predict what might happen in a program. To record an algorithm for a travel sequence using technology purposefully.
Summer 1	To understand the importance	To learn to identify	To understand that being a	To find out about:	To find out about:		

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	<p>of being safe, responsible and respectful online.</p> <p>To understand that being safe online is similar to staying safe in real life.</p>	<p>websites and apps that are "just right" and "not right" for them.</p> <p>To know how to get help from an adult if they are unsure about a website.</p>	<p>good digital citizen means being safe and responsible online.</p>	<ul style="list-style-type: none"> • Pop ups and in app purchasing • Inappropriate websites for older children • Cyberbullying 	<ul style="list-style-type: none"> • Upsetting images • Unreliable information • Talking to strangers online 		
Summer 2							
<u>Year 3</u>							
Autumn 1	<p>To understand what an algorithm is and write a simple algorithm.</p>	<p>To use sequence in programs to create algorithms.</p>	<p>To detect and correct errors in algorithms.</p>	<p>To detect and correct errors in algorithms.</p>			
Autumn 2							
Spring 1	<p>To become familiar with the different elements of Scratch</p>	<p>To solve problems by decomposing them into smaller parts.</p>	<p>To use import sprites on Scratch and create a background.</p>	<p>To write programs to accomplish goals on Scratch.</p>	<p>To write and debug programs on Scratch.</p>	<p>To use sequence in a program on Scratch.</p>	<p>To adapt an idea to create something new and evaluate others' work.</p>

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Spring 2	To understand what it means to be a good digital citizen.	To recognise the importance of time away from devices.	To know that personal information should be kept private online.	To understand what is meant by a 'digital footprint'.	To know how to report concerns online and who to talk to.	To develop strategies to recognise if something is true/accurate.	
Summer 1	To explore the concept of sequence through role-play.	To predict, modify and innovate an existing code.	To write and debug programs on Scratch.	To add backgrounds and dialogue to a program.			
Summer 2	To use the internet for research using keywords.	To use presentation software to create a sequence of slides.	To use available features to change the design of a presentation.	To perform basic editing on images in a presentation.	To insert music and sounds into a presentation.		
<u>Year 4</u>							
Autumn 1	To understand how computer networks work.	To understand and appreciate how internet search results are selected.	To use internet search technologies as part of research.	To use internet search technologies as part of research.	To use a computer network to collaborate with others.		

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			To use a computer network to collaborate with others.	To use a computer network to collaborate with others.			
Autumn 2							
Spring 1	To select from a variety of software to accomplish given goals.						
Spring 2	To decompose the elements of a game. To follow instructions to recreate a game.	To understand positive and negative co-ordinates in Scratch.	To plan their own game based on the one already created.	To create their own game on Scratch using co-ordinates, randomly generated numbers and a scoring system.	To create their own game on Scratch using co-ordinates, randomly generated numbers and a scoring system.	To evaluate the games they have created.	
Summer 1							
Summer 2	*To understand the features of a landscape photograph. *To know how to take a good quality	*To use software on iPads to manipulate landscape images taken in Emsworth.					

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	landscape photograph. *To assess their work against a success criteria.						
Year 5							
Autumn 1	To understand why databases can be a useful way to present a large amount of data. To create a database to support investigation.	To design accurate questions to search a database. To use 'AND', 'OR' '<=' and '>=' to search a database. To create graphs and charts from data in a spread sheet.	To perform simple calculations using data presented in a spread sheet, including using (+, -, * and /) and SUM to total a range of cells.				
Autumn 2	To explain what the internet is. To explain the difference between the	To explain how the internet provides access to the world wide web.					

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	internet and the world wide web.						
Spring 1	To understand what copyright is and apply it to real-life scenarios on the internet.	To understand what makes someone a good digital citizen and to understand what constitutes cyber bullying	To understand appropriate social interactions when gaming online	To understand what a digital footprint is and what their responsibilities are in relation to this.	To explain the difference between private and personal information and to know the risks in sharing this information online.		
Spring 2	To understand how computer programmes can use various inputs to create a desired output	To write down the steps required to achieve a desired outcome (inputs and outputs)	To use selection, sequence and repetition within a program to create desired outputs to move a fairground ride.				
Summer 1	To use logical reasoning to explain how more complex algorithms work.	*To use logical reasoning to detect and correct errors in algorithms.	*To work with variables.	*To solve problems by decomposing them into smaller parts.	*To use selection in programs		

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Summer 2	To use data loggers to record information relating to rivers.						
Year 6							
Autumn 2	To explore a range of robots and how they can be used to enhance our lives.	To build and control a physical system (crumble-bots).	To solve problems by decomposing them into smaller parts (crumble software).	To work with various forms of input and output. (crumble-bots)	To work with various forms of input and output. (crumble-bots)	To plan a challenge for my crumble bot Develop logical reasoning to explain how increasingly complex algorithms work. (crumble software)	To accomplish a specific goal by controlling a physical system. (crumble-bots)
Spring 2	To show an understanding of the impact screen time can have on our mental health.	To consider what "media balance" means and how it applies to them.	To identify strategies for dealing with cyberbullying	To describe the benefits and risks of online-only friendships.	To define "gender stereotypes" and describe how they can be present online.	To use strategies for avoiding clickbait.	

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Summer 1							
Summer 2	To enter data and formulae into a spreadsheet.	To order and present data based on calculations.	To add edit and calculate data.				