

Computing Scheme Overview

DL = Digital Literacy

CS = Computer Science

IT = Information Technology

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 1	IT	DL	CS	CS	IT	IT
	<p>Basic Computing Skills</p> <p>Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password.</p>	<p>Using text-based programs to process and format text and Images</p> <p>Pupils will learn how to use a word processing program to write and format text. They will add digital images and consider the audience for their work.</p>	<p>Unplugged Algorithms</p> <p>Pupils learn what an unplugged algorithm is and create and apply them to an on-screen program.</p>	<p>Programming, coding & Robotics</p> <p>Pupils explore how to control both physical and virtual robots with a sequence of commands.</p>	<p>Data collection and representation using Pictograms</p> <p>Pupils will explore how to transfer physical data from a tally chart into a digital pictogram. They will compare the difference with creating a physical pictogram.</p>	<p>Presenting Information</p> <p>Pupils will consider a variety of ways to present cross curricular information digitally, and compare the advantages and disadvantages with paper-based content.</p>

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 2	IT	CS	CS	DL	IT	IT/DL
	<p>What is a Computer?</p> <p>Pupils will learn how to identify a computer's different parts and talk about the role computers play in our society.</p>	<p>Unplugged Algorithms</p> <p>Pupils build on their knowledge of what an algorithm is and how we can program computers to use algorithms.</p>	<p>Programming using Scratch Jr</p> <p>Pupils will use the Scratch Jr app to write their own block code for several different projects. These can easily be made cross curricula.</p>	<p>Storing and Presenting Data</p> <p>Pupils to understand what data is, and how we store that data in different ways. Storing data on a computer allows us to quickly sort it and present it as information in graphs and charts.</p>	<p>Modifying Text and Images</p> <p>Pupils will look at software they can use to present their work. They will expand on previous skills such as using a keyboard, formatting text and how to use images in their work.</p>	<p>Presenting Information</p> <p>Pupils will explore and learn how to present information to an audience using technology.</p>
YEAR 3	IT	CS	CS	IT	CS	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>Inside a computer</p> <p>Pupils will identify the different parts of a computer and explore how computers have evolved over the last 100 years.</p>	<p>Publishing Online Content</p> <p>Pupils will be introduced to graphic design, marketing, and will develop their publishing skills.</p>

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 4	IT	CS	CS	IT	DL	IT
	Branching Databases Pupils learn about the concept of a branching database and create their own using presentation software.	Repetition and Forever Loops Pupils learn to use repetition and loops when coding.	Designing a Game Pupils use their knowledge of Scratch to create a Formula One style game.	Making a Special Effects movie Pupils create their own videos and apply special effects to them.	Smarter Searching and Online Safety Pupils to gain awareness of the best ways to use a search engine and to continue to develop awareness of online dangers.	Pixel Art Pupils create a piece of pixel artwork using a grid format.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 5	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.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YEAR 6	IT	CS	CS	IT	IT	IT & DL
	<p>Creating Formula in Excel</p> <p>Pupils will learn how to organise data and make calculations using the application Microsoft Excel.</p>	<p>Edublocks- Introduction to Python</p> <p>Pupils will learn how block-based programming compares to written code. Pupils will be introduced to Python as a text-based method of programming.</p>	<p>Programming a Game</p> <p>Using the application Scratch, pupils will create an interactive, playable game using conditionals, variables, and operators.</p>	<p>Creating a Podcasting</p> <p>Pupils will produce a podcast based on a piece of writing from another curriculum area or aspect of school life.</p>	<p>HTML</p> <p>Pupils will learn how to design a multi-page informational website, considering the layout, user experience and key features including home page, links and images.</p>	<p>Social Media & Being Safe Online</p> <p>Pupils will learn about the purpose of social media and different aspects of social media and how to use it safely.</p>