

Lewknor C of E Long Term Computing Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	<p>Technology around us</p> <p>Children engage in the home corner – role play with phones, washing machines and ovens as part of their home based role-play.</p>	<p>E-safety</p> <p>Children learn how they need to follow certain rules to remain safe online.</p>	<p>Mouse and Keyboard Skills</p> <p>Children learn how to navigate around a laptop using a mousepad. Children will open Microsoft Word to type the initial sound of their name using Microsoft Word.</p>	<p>Mouse Skills</p> <p>Children learn how to navigate around a laptop using a mousepad. Children will open paint and try and draw the initial sound of their name using the mouse pad.</p>	<p>Data Logging</p> <p>As a class, children insert data into a pictogram and answer simple questions relating to the pictogram. Children will use the programme 2Simple to create their own pictograms.</p>	<p>Programming</p> <p>Children learn how to control a pen using directions. Children use 2Simple go to create shapes.</p>
Infants Cycle A	<p>Computer Skills (CS)</p> <p>Children are introduced to using computers more purposefully, learning to login & navigate around a computer, develop their mouse skills, learn how to click & control their cursor to open programmes.</p>	<p>Word processing (ET)</p> <p>Children learn how to type with two hands, use the space & enter key properly, and edit work by using the backspace, delete and arrow keys. Children will then go on to learn how to use undo and redo and to select and format text</p>	<p>Painting (ET, CM)</p> <p>Children develop basic painting skills in a painting application on a computer or tablet device. Children will use a simple painting program to paint with different colours and brushes, create shapes, fill areas, undo and redo and add text</p>	<p>E-safety (SS)</p> <p>Children learn that they can go to exciting places online, but they need to follow certain rules to remain safe</p>	<p>Programming: Unit 1a: On the move</p> <p>Children learn that programs execute by following clear instructions. Children understand that programs respond to inputs to do different things.</p> <p>Programming: Unit 1b: Simple inputs</p> <p>Children learn to combine start and input events to create more advanced apps and programs using precise information</p>	<p>Programming: Introduction to animation</p> <p>Children learn programming through Scratch Jr. Children will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Children will also be introduced to the early stages of program design through the introduction of algorithms.</p>
Infants Cycle B	<p>E-safety (SS)</p> <p>Children learn that they can go to exciting places online, but they need to follow certain rules to remain safe</p>	<p>Computing systems and networks – IT around us</p> <p>How is information technology (IT) being used for good in our lives? With an initial focus on IT in the home, children explore how IT benefits society in places such as shops, libraries, and hospitals. Whilst discussing the responsible use of technology, and how to make smart choices when using it.</p>	<p>Grouping Data</p> <p>This unit introduces children to data and information. They will begin by using labels to put objects into groups, and labelling these groups. Children will demonstrate that they can count a small number of objects, before and after the objects are grouped. They will then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, children will use their ability to sort objects into different groups to answer questions about data.</p>	<p>Digital Photography</p> <p>Children will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real.</p>	<p>Programming: Unit 2a: Different sorts of input</p> <p>Children learn that programs respond to different sorts of inputs, and that the keyboard can be used to control objects on screen, not just by clicking them directly.</p>	<p>Programming: Unit 2b: Buttons and instructions</p> <p>Children learn that one object can be used to control another object, e.g. writing code so clicking a button gives an instruction to make a lorry move.</p>
Lower Juniors Cycle A	<p>E-safety (SS)</p> <p>Children learn that they can go to exciting places online, but they need to follow certain rules to remain safe and to understand that they should never give out private information.</p>	<p>Connecting Computers (NW, CS)</p> <p>Children will develop their understanding of digital devices, with an initial focus on inputs, processes, and outputs. Children will start by comparing digital and non-digital devices, before introducing them to computer networks that include network infrastructure devices like routers and switches.</p>	<p>Word Processing Skills (ET)</p> <p>Children learn how to change case, align text, use bullets and numbering, add text boxes and use keyboard shortcuts.</p>	<p>Programming - Sequence in music (PG, DD)</p> <p>This unit explores the concept of sequencing in programming through Scratch. It begins with an introduction to the programming environment, which will be new to most children. They will be introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences.</p>	<p>Desktop publishing (ET, CM)</p> <p>They will use desktop publishing software and consider careful choices of font size, colour and type to edit and improve pre-made documents. Children will be introduced to the terms ‘templates’, ‘orientation’, and ‘placeholders’ and begin to understand how these can support them in making their own template for a magazine front cover.</p>	<p>Programming – Events and actions</p> <p>Children will begin by moving a sprite in four directions (up, down, left and right). They will then explore movement within the context of a maze, using design to choose an appropriately sized sprite. The unit concludes with children designing and coding their own maze trading program.</p>
Lower Juniors Cycle B	<p>E-safety (SS)</p> <p>Children will learn that they can go to exciting places online, but they need to follow certain rules to remain safe and to understand that they should never give out private information</p> <p>Email (SS)</p> <p>Children will learn how to log on to their email and how to send an email.</p>	<p>The Internet (NWW, SS)</p> <p>Children will learn that the World Wide Web is part of the internet, and be given opportunities to explore the World Wide Web for themselves to learn about who owns content and what they can access, add, and create. They will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.</p>	<p>Presentation Skills (CM)</p> <p>This unit develops children’s use of presentation software. The first three lessons teach children new skills, following on from previous skills learnt; setting the theme, slide transitions, animating objects onto the slide, creating hyperlinks in the action settings and adding audio and video.</p>	<p>Animation (ET, CM)</p> <p>Children learn the basic principles and techniques of simple animation. Beginning with the history of animation, children research some of the early animation techniques used before the use of computers. The lessons then compare a range of free animation software and children incorporate the different techniques into their own animation.</p>	<p>Programming: Unit 4a Introduction and variables (AL, PG):</p> <p>Children learn how computers use variables to count things and keep track of what is going on, then create simple games which use a score variable.</p>	<p>Programming:</p> <p>Unit 4b: Repetition and loops (PG, DD)</p> <p>Learn how computers use repetition and loops to do things over and over again (and again!).</p>
Upper Juniors Cycle A	<p>E-safety (SS)</p> <p>Children will learn that they can go to exciting places online, but they need to follow certain rules to remain safe and to understand that they should never give out private information</p>	<p>Systems and Sharing Information (NW, ET)</p> <p>Children will develop their understanding of computer systems and how information is transferred between systems and devices. Children will consider small-scale systems as well as large-scale systems. They will explain the input, output, and process aspects of a variety of different real-world systems. Children will also take part in a collaborative online project with other class members and develop their skills in working together online.</p>	<p>Creating media - Radio Station (ET, CM)</p> <p>Children use software and digital devices for recording sound. Based around the theme of a Radio Station, it is designed to encourage a creative approach that includes interviewing, making adverts and using jingles. Other software is incorporated where children write scripts and design additional advertising for their Radio Station. Opportunities are included for children to present, listen, review and evaluate their own content as well as professional and commercial examples, plus those created by their peers.</p>	<p>Flowol (ET, DI)</p> <p>This unit introduces children to flowcharts and how they are used to program and control devices. Lessons are designed to be used with Flowol software (version 4.0), which includes simulations of real life automatic computer systems. Children are taught to build sequences of instructions, control multiple outputs and structure algorithms with decisions and inputs. Although many external hardware interfaces can be attached and linked to a computer using Flowol, this unit is designed as an introduction to the software and the concepts of flowchart programming.</p>	<p>Programming: Unit 5a: Speed, directions and coordinates (PG)</p> <p>Children learn how computers use numbers to represent things such as how fast things are moving, and where they are.</p>	<p>Programming: Unit 5b: Random numbers & simulations (PG)</p> <p>Children learn how computers can generate random numbers and how these can be used in simulations.</p>
Upper Juniors Cycle B	<p>E-safety (SS)</p> <p>Children will learn that they can go to exciting places online, but they need to follow certain rules to remain safe and to understand that they should never give out private information</p>	<p>Internet Communication (NW, ET)</p> <p>In this unit, the class will learn about the World Wide Web as a communication tool. First, they will learn how we find information on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines. They will then investigate different methods of communication, before focusing on internet-based communication. Finally, they will evaluate which methods of internet communication to use for particular purposes.</p>	<p>Creating media – Webpage Creation (CM, DD)</p> <p>This unit introduces children to the creation of websites for a chosen purpose. Children identify what makes a good web page and use this information to design and evaluate their own website using Google Sites. Throughout the process children pay specific attention to copyright and fair use of media, the aesthetics of the site, and navigation paths.</p>	<p>Spreadsheets (ET, DI)</p> <p>This unit introduces children to spreadsheets. They will be supported in organising data into columns and rows to create their own data set. Children will be taught the importance of formatting data to support calculations, while also being introduced to formulas and will begin to understand how they can be used to produce calculated data. Children will be taught how to apply formulas that include a range of cells, and apply formulas to multiple cells by duplicating them.</p>	<p>Scratch: Animated Stories (PG, DD)</p> <p>The unit is designed to help children in continuing to develop their skills in writing their own algorithms as well as editing and debugging existing codes. New skills are introduced to structure code and animate characters and scenes, gradually building to create a short animated story.</p>	<p>Programming: Unit 6a: More complex variables (PG)</p> <p>Children learn to use variables in more complex ways, and to manipulate inputs to create useful outputs.</p> <p>Programming: Unit 6b: Object Properties (PG)</p> <p>Children learn more about how computers use property values and parameters to store information about objects.</p>

