

# St Austin's Long Term Planning

## Computing Yearly Overview



	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	<ul style="list-style-type: none"> <li>Talk about technology that is used at home, in school and in the world around them.</li> </ul>		<ul style="list-style-type: none"> <li>Tell an adult if something worrying or unexpected happens whilst using technology.</li> </ul>		<ul style="list-style-type: none"> <li>Talk about different kinds of information such as pictures, videos, text and sound.</li> </ul>	
Reception	<ul style="list-style-type: none"> <li>Talk about different kinds of information such as pictures, videos, text and sound.</li> <li>Can identify a device that uses technology.</li> <li>Talk about technology that is used at home, in school and in the world around them.</li> </ul>		<ul style="list-style-type: none"> <li>Ask permission before using the Internet.</li> <li>Tell an adult if something worrying or unexpected happens whilst using technology.</li> <li>Be able to give a floor robot instructions to make it move.</li> <li>Understand what happens when you click a button or touch an icon.</li> </ul>		<ul style="list-style-type: none"> <li>Use simple software and explain what you are doing.</li> <li>Use a mouse and touch screen to move objects on a screen.</li> <li>Use a safe part of the Internet to explore, play and learn.</li> <li>Create shapes and text on a screen.</li> </ul>	
Year 1	<p align="center"><b>Basic Computing Skills</b></p> <p>Pupils will learn how to log in and shut down a computer accurately and begin to understand the importance of a password. They will develop keyboard and mouse skills.</p>		<p align="center"><b>Programming, Coding &amp; Robotics</b></p> <p>Pupils explore how to control both physical and virtual robots with a sequence of commands.</p>		<p align="center"><b>Using text-based programs to process and format text and Images</b></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>	

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<b>Year 2</b>	<p><b>What is a Computer?</b></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><b>Unplugged Algorithms</b></p> <p>Pupils build on their knowledge of what an algorithm is and how we can program computers to use algorithms.</p>	<p><b>Programming using Scratch Jr</b></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 curricular.</p>	<p><b>Storing and Presenting Data</b></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><b>Modifying Text and Images</b></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><b>Presenting Information</b></p> <p>Pupils will explore and learn how to present information to an audience using technology.</p>
<b>Year 3</b>	<p><b>Composing Emails</b></p> <p>Pupils will explore the different advanced features of Microsoft Word. They will also use these skills to compose an email.</p>	<p><b>Introduction to Scratch</b></p> <p>Pupils will learn how to program sprites using a range of blocks to add animation, sound and other effects</p>	<p><b>Prediction and Debugging</b></p> <p>Pupils will learn how to use prediction when coding to test and debug written programs.</p>	<p><b>Altering Media</b></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><b>Inside a computer</b></p> <p>Pupils will identify the different parts of a computer and explore how computers have evolved over the last 100 years.</p>	<p><b>Publishing Online Content</b></p> <p>Pupils will be introduced to graphic design, marketing, and will develop their publishing skills.</p>
<b>Year 4</b>	<p><b>Branching Databases</b></p> <p>Pupils learn about the concept of a branching database and create their own using presentation software.</p>	<p><b>Repetition and Forever Loops</b></p> <p>Pupils learn to use repetition and loops when coding.</p>	<p><b>Designing a Game</b></p> <p>Pupils use their knowledge of Scratch to create a Formula One style game.</p>	<p><b>Making a Special Effects movie</b></p> <p>Pupils create their own videos and apply special effects to them.</p>	<p><b>Smarter Searching and Online Safety</b></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><b>Pixel Art</b></p> <p>Pupils create a piece of pixel artwork using a grid format.</p>

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<b>Year 5</b>	<p style="text-align: center;"><b>Create &amp; Search Database</b></p> <p>Pupils will use Excel to create and search a database.</p>	<p style="text-align: center;"><b>Using Variables</b></p> <p>Pupils identify different types of variables. What conditionals are and understand how variables are used in computer programming.</p>	<p style="text-align: center;"><b>Coding Using Micro:Bits</b></p> <p>Pupils to program Micro:Bit to make a variety of practical and usable devices.</p>	<p style="text-align: center;"><b>Stop Motion Animation</b></p> <p>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.</p>	<p style="text-align: center;"><b>The Internet &amp; The World Wide Web</b></p> <p>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.</p>	<p style="text-align: center;"><b>3D Modelling</b></p> <p>Children will learn to design models using online CAD software.</p>
<b>Year 6</b>	<p style="text-align: center;"><b>Creating Formula in Excel</b></p> <p>Pupils will learn how to organise data and make calculations using the application Microsoft Excel.</p>	<p style="text-align: center;"><b>Edublocks- Introduction to Python</b></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 style="text-align: center;"><b>Programming a Game</b></p> <p>Using the application Scratch, pupils will create an interactive, playable game using conditionals, variables, and operators.</p>	<p style="text-align: center;"><b>Creating a Podcast</b></p> <p>Pupils will produce a podcast based on a piece of writing from another curriculum area or aspect of school life.</p>	<p style="text-align: center;"><b>HTML</b></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 style="text-align: center;"><b>Social Media &amp; Being Safe Online</b></p> <p>Pupils will learn about the purpose of social media and different aspects of social media and how to use it safely.</p>