



Shiremoor Primary School Computing Curriculum

Year group	Autumn	Spring	Summer	Online Safety
Nursery	<u>Nursery and Reception All Year Around Continuous Provision</u> Children explore technology through play with everyday objects, learning how things work. They use tools like windup toys, interactive whiteboard and household items such as toy cookers, cameras and freezers to understand cause and effect and how technology fits into daily life.			
Rec	<p>Barefoot: Awesome Autumn Explore autumn with fun sorting, pattern and logic tasks.</p> <p>Computing Theory: Discuss the range of technology used in places such as homes and schools.</p>	<p>Barefoot Springtime Spot patterns and solve problems using digital tools.</p> <p>Introducing Bee-Bots Use Bee-Bots to learn direction and sequencing.</p> <p>Computing Theory: Talk about technology in their daily lives.</p>	<p>Barefoot Summer Fun Use games, music and for logic and problem solving.</p> <p>Lego Steam Park Build themed Lego models to develop creativity.</p> <p>Computing Theory: Name parts of a computer system.</p>	<p><u>Autumn:</u> Recognize themselves online and know trusted adults. <u>Spring:</u> Know who to tell if something feels wrong. <u>Summer:</u> Know devices and creations belong to them.</p>
Year 1	<p>Algorithms – Bee-Bots Learn what algorithms are by programming Bee-Bots.</p>	<p>First Lego League DISCOVER Build simple Lego models to solve a hands-on problem.</p> <p>Computing Theory: Understand what technology is and where we see it.</p>	<p>Improving mouse skills - Digital Imagery Create simple pictures using a mouse and basic digital tools.</p> <p>Computing Theory: Spot objects that use digital technology.</p>	<p><u>Autumn:</u> Keep personal information private. <u>Spring:</u> Be kind and respectful online. <u>Summer:</u> Understand who owns work and how to save safely.</p>
Year 2	<p>What is a computer? Word Processing Identify computer parts and practice typing.</p> <p>Computing Theory: Effectively retrieve content using a search engine.</p>	<p>Programming Scratch Jr Create short animations using coding blocks.</p> <p>Computing Theory: Children describe appropriate email conventions.</p>	<p>First Lego League EXPLORE Design, build and test Lego models to explore real world challenges through teamwork.</p>	<p><u>Autumn:</u> Respect how others appear and act online. <u>Spring:</u> To know the risks of talking to people online. <u>Summer:</u> Recognize personal information and how to protect it.</p>



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Year 3	<p>Data Handling: Comparison Cards Databases Sort and group information using simple databases.</p> <p>Computing Theory: Learn how the internet helps us share and communicate.</p>	<p>Programming Scratch *Scratch Maze Work as a team to solve problems by coding Lego.</p> <p>Computing Theory: Understand appropriate use of email.</p>	<p>First Lego League EXPLORE Work as a team to solve problems by coding Lego.</p>	<p><u>Autumn:</u> Explore identity and online time use. <u>Spring:</u> communicate kindly and spot fake content. <u>Summer:</u> Explore how copying without permission is unfair.</p>
Year 4	<p>Computing Systems and Networks - Networks and Emailing Learn how devices connect and practice safe emailing.</p> <p>Computing Theory: Children recognize the main components of hardware that join to make a network.</p>	<p>First Lego League EXPLORE Plan and present a solution to a real life problem using Lego, teamwork and creativity.</p>	<p>Website design Create a simple website using images and text.</p> <p>Computing Theory: Understand further on how to stay safe online.</p>	<p><u>Autumn:</u> Think about how online actions affect others. <u>Spring:</u> Recognize safe strategies for online gaming and socializing. <u>Summer:</u> Understand digital content ownership and copyright.</p>
Year 5	<p>Micro:Bit Code simple messages and images with block programming.</p> <p>Computing Theory: Understand the value of computer networks and the main dangers linked with personal information.</p>	<p>First Lego League CHALLENGE Build and code a Lego robot to complete tasks.</p>	<p>Computing Systems and Networks - Search engines Learn how search engines work and find reliable information.</p> <p>Computing Theory: Choose safe and useful online content.</p>	<p><u>Autumn:</u> To know how identify can be faked or changed online. <u>Spring:</u> Spot fake news and evaluate sources. <u>Summer:</u> Protect personal information across apps and services.</p>
Year 6	<p>Programming – Intro to Python Write simple code using python with loops and variables.</p> <p>Computing Theory: Children explore the difference between the internet and the World Wide Web.</p>	<p>Computing Systems and Networks - Bletchley Park Link WWII codebreaking to modern networks.</p> <p>Computing Theory: Know what WAN and LAN mean.</p>	<p>First Lego League CHALLENGE Work collaboratively to code and engineer solutions using Lego robotics and project skills.</p>	<p><u>Autumn:</u> Challenge stereotypes and poor representation online. <u>Spring:</u> Spot persuasive tactics and ‘opinion as fact’ <u>Summer:</u> Use search tools safely; manage privacy settings.</p>