Prior's Mill – Computing Long Term Plan

Early Years		Year One	Year Two	Year Three	Year Four	Year Five	Year Six
Nursery Understanding the world – explore how things work. Household devices, Interactive whiteboard. **Reception** Barefoot Computing – Awesome autumn, winter warmers and Springtime Create and interpret simple maps PSED- Show resilience and perseverance in the face of a challenge. Know and talk about the	Autumn One **Computing systems and networks**	Technology around us Recognising technology in school and using it responsibly.	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.	Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks	The internet Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Systems and searching Recognising IT systems in the world and how some can enable searching on the internet.	Communication and collaboration Exploring how data is transferred by working collaboratively online.
	Autumn Two **Creating Media**	Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Digital photography Capturing and changing digital photographs for different purposes.	Stop-frame animation Capturing and editing digital still images to produce a stop-frame animation that tells a story.	Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Video production Planning, capturing, and editing video to produce a short film	Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics, and navigation.
	Spring One **Programming**	Moving a robot Writing short algorithms and programs for floor robots, and predicting	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions	Sequencing sounds Creating sequences in a block-based programming language to make music.	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	Selection in physical computing Exploring conditions and selection using a programmable microcontroller	Variables in games Exploring variables when designing and coding a game.

different factors that support their overall health and wellbeing sensible amounts of 'screen time'. Use computational thinking process when completing any type of pattern or problem. **Early Learning Goal** PSED- Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly.		program outcomes.					
	Spring Two **Data and information**	Grouping data Exploring object labels, then using them to sort and group objects by properties.	Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	Branching databases Building and using branching databases to group objects using yes/no questions.	Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Flat-file databases Using a database to order data and create charts to answer questions.	Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.
	Summer One **Creating Media**	Digital writing Using a computer to create and format text, before comparing to writing non-digitally.	Digital music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Desktop publishing Creating documents by modifying text, images, and page layouts for a specified purpose	Photo editing Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects.	3D modelling Planning, developing, and evaluating 3D computer models of physical objects.
	Summer Two **Programming**	Programming animations Designing and programming the movement of a character on screen to tell stories.	Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.	Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.	Selection in quizzes Exploring selection in programming to design and code an interactive quiz	Sensing movement Designing and coding a project that captures inputs from a physical device.

<u>EAD-</u> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. <u>Key Vocabulary</u> Computer, mouse, screen, keyboard, safe, instructions, debug, pattern, remote, phone, trusted adult,							