Computing at Eversley

"Everybody should learn to program a computer, because it teaches you how to think ." **Steve Jobs.**

We believe that an engaging and motivating Computing curriculum will enable our learners to be able to use a variety of knowledge and skills, which they are able to maintain throughout and after their time at our school. This key knowledge and skills includes using computational thinking and creativity to understand and change the world. This encompasses using technology to reach a wide audience and using different programs to create their work. It also involves making deep links with mathematics, science and design and technology.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Although Computing is no longer assessed as an early learning goal, our children have opportunities to do the following, during free flow sessions to ensure they are prepared to being the curriculum in Year 1; • Use BeeBots to support positional language and to follow instructions (? • Understanding about past and present and how technology is used today (Understanding the World) • Role play opportunities e.g. computer at the builder's yard, cash register as part of a shop etc. (Expressive Arts & Design) • Children are given the opportunity to use technology purposefully, e.g. taking a photo of their own work to upload to Tapestry / Physical Development • Discussing how computers may work and what is connected to a computer e.g. keyboard, mouse (Communication & Language) • Fine motor skills activities– this is developed in many ways during Reception and builds the fundamental skills needed to type and use a computer/iPad (Physical Development) • Exploring patterns by distributing quantities equally e.g. repeating patterns (Mathematics) • Using the iPads to explore and learn how to take photos/videos					
Year 1	**Computing systems and networks –** ***Technology around us:*** Recognising technology in school and using it responsibly	**Creating Media -** ***Digital painting:*** Choosing appropriate tools in a program to create art, and making comparisons with	**Creating Media-** ***Digital writing:*** Using a computer to create and format text, before	**Data and Information –** ***Grouping data:*** Exploring object labels, then using them to sort and group objects by properties.	**Programming –** ***Moving a Robot:*** Writing short algorithms and programs for floor robots, and predicting program outcomes.	**Programming –** ***Programming animations:*** Designing and programming the movement of a character on screen to tell stories.

		working non-digitally.	comparing to writing non-digitally.			
Year 2	**Computing systems and networks –** ***Information Technology around us:*** Identifying IT and how its responsible use improves our world in school and beyond.	**Creating Media -** ***Digital photography:*** Capturing and changing digital photographs for different purposes.	**Programming -** ***Robot algorithms:*** Creating and debugging programs, and using logical reasoning to make predictions.	**Data & Information-** ***Pictograms:*** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Creating Media-** ***Digital music:*** Using a computer as a tool to explore rhythms and melodies, before creating a musical composition	**Programming -** ***Programming quizzes:*** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
Year 3	**Computing systems and networks –** ***Connecting Computers:*** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.	**Creating Media -** ***Stop-frame Animation:*** Capturing and editing digital still images to produce a stop-frame animation that tells a story.	**Programming-** ***Sequencing sounds:*** Creating sequences in a block-based programming language to make music.	**Data & Information–** ***Branching databases:*** Building and using branching databases to group objects using yes/no questions.	**Creating Media-** ***Desktop publishing:*** Creating documents by modifying text, images, and page layouts for a specified purpose.	**Programming –** ***Events and actions in program:*** Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	**Computing systems and networks –** ***The internet:***	**Creating Media -** ***Audio production:***	**Programming -** ***Repetition in shapes:***	**Data & Information-** ***Data logging:***	**Creating Media-** ***Photo editing:***	**Programming-** ***Repetition in games:***

	Recognising the internet as a network of networks including the WWW, and why we should evaluate online content.	Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Using a text-based programming language to explore count-controlled loops when drawing shapes.	Recognising how and why data is collected over time, before using data loggers to carry out an investigation.	Manipulating digital images, and reflecting on the impact of changes and whether the required purpose is fulfilled.	Using a block-based programming language to explore count-controlled and infinite loops when creating a game.
Year 5	**Computing systems and networks -** ***Sharing information:*** Identifying and exploring how information is shared between digital systems.	**Creating Media-** **Video production:** Planning, capturing, and editing video to produce a short film.	**Programming –** ***Selection in physical computing:*** Exploring conditions and selection using a programmable microcontroller.	**Data & Information-** ***Flat-file databases:*** Using a database to order data and create charts to answer questions.	**Creating Media -** ***Introduction to vector graphics:*** Creating images in a drawing program by using layers and groups of objects.	**Programming-** ***Selection in quizzes:*** Exploring selection in programming to design and code an interactive quiz.
Year 6	**Computing systems and networks -** ***Communication and collaboration:*** Recognising how the World wide web can be used to communicate and be searched to find information.	**Creating Media -** ***Webpage creation:*** Designing and creating webpages, considering copyright, aesthetics, and navigation.	**Programming** ***Variables in games:*** Exploring variables when designing and coding a game.	**Data & Information-** ***Introduction to spreadsheets:*** Answering questions by using spreadsheets to organise and calculate data.	**Creating Media-** ***3D modelling:*** Planning, developing, and evaluating 3D computer models of physical objects.	**Programming-** ***Sensing movement:*** Designing and coding a project that captures inputs from a physical device.