Subject: Computing yr1-6

Computing Curriculum

	Autumn	Spring	Summer
Year 1	**Technology around us** Recognising technology in school and using it responsibly. **Digital painting** Choosing appropriate tools in a program to create art	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes. **Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Digital writing** Using a computer to create and format text, before comparing to writing non-digitally. **Programming animations** Designing and programming the movement of a character on screen to tell stories.
Year 2	**Great Fire of London** Digital painting, writing and programming linked to this part of history **Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions. **Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Digital music** Using a computer as a tool to explore rhythms and melodies. **Programming quizzes** Designing algorithms and programs that use events to trigger a sequence of code.
Year 3	**Logo Programming** Creating turtle graphics by coding directional commands **Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs & how to create networks. **Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Branching databases** Building and using branching databases to group objects using yes/no questions **Desktop publishing** Creating documents and modifying text, images and page layouts for a specific purpose.
Year 4	**Repetition in shapes** Using a block-based programming language to explore nested loops when drawing shapes. **Repetition in games (Maze Game)** Using a block-based programming language to explore infinite loops when creating a game.	**Programming a physical device** Exploring the features of a Microbit and learn how hardware and software work together **Creating a presentation** Format work and how to add animations and slide transitions	**The internet** Recognising that the internet is a network of networks including the WWW. **Photo editing** Manipulating digital images
Year 5	**Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet. **3D modelling** Developing a 3D model of a Tudor home	**HTML** Website creation using text-based programming **Flat-file databases** Using a database to order data and create charts to answer questions	**Introduction to vector graphics** Creating images in a drawing program by using layers and groups of objects. **Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.
Year 6	**Programming a physical Device** Creating circuits using a Crumble controller **Communication and collaboration** Exploring how communication has changed over time and how we can use technology to work together.	**Binary & Codebreaking** Learning how computer systems use binary to communicate commands or data **Variables in games** Exploring variables when designing and coding a game.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data. **Python Programming** Exploring text-based programming language