Computing Curriculum Map - Key Stage 1 and 2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1 Computing	**Computing systems and networks - Technology around us -** Children will develop their understanding of technology and how it can help them in their everyday lives. They will start to become familiar with the different components of a computer by developing their keyboard and mouse skills and consider how to use technology responsibly.	**Creating media - digital painting** Children will explore the world of digital art and its exciting range of creative tools. They will create their own paintings, while getting inspiration from a range of other artists. Children will be asked to consider their preferences when painting with, and without, the use of digital devices..	**Programming A - Moving a robot** Children will be introduced to programming concepts, explore using individual commands, both with other learners and as part of a computer program. Identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. Children are introduced to the early stages of program design through the introduction of algorithms.	**Data and information - Grouping datail -** Children will begin by using labels to put objects into groups, and labelling these groups. Show that they can count a small number of objects, before and after the objects are grouped. Then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose, use their ability to sort objects into different groups to answer questions about data.	**Creating media - Digital writing** understanding of the various aspects of using a computer to create and change text. Familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing, and then they will consider the differences between using a computer and writing on paper to create text.	**Programming B - Programming animations -** Introduce children to on-screen programming through ScratchJr. Explore the way a project looks by investigating sprites and backgrounds. Use programming blocks to use, modify, and create programs. Introduce early stages of program design through the introduction of algorithms.
Y2 Computing	**Computing systems and Networks-** IT around us. Develop understanding of what IT is (in schools and beyond) and identify examples. Investigate how IT improves our world. Learn how to use IT responsibly. Creating media – Digital photography.	Recognise different devices can be used to capture photographs. Gain experience capturing, editing and improving photos. Recognise that images they see may not be real.	**Programming A** Robot algorithms: Develop an understanding of instructions in sequences and logical reasoning to predict outcomes. Design algorithms as programs and debug them.	**Data and information-** Pictograms Begin to understand what 'attribute' 'data' means and how data can be collected in a tally chart. Present data in pictograms and block diagrams and answer questions on it. Branching databases.	**Creating media-** Digital music. Use a computer to create music. Compare creating music digitally and non digitally. Keyboard skills.	**Programming B**- Programming quizzes Begin to understand that sequences of commands have an outcome. To use and modify designs to create quiz questions in Scratch Jr, evaluate their work and make improvements.
Y3 Computing	**Computing Systems and networks- Connecting computers:** Explore how a digital device works, what parts make up a digital device and how they help us How are we and our school connected? What does our school network look like?	**Creating Media-Stop Frame Animation:** Can a picture move? Frame by frame. Breakdown a story into settings characters and events,describe an animation that is achieveable on screen. Use tablets to create stop frame animations, evaluate and edit their work by adding media and effects such as music and text..	**Programming -Sequencing Sounds:** Identify objects in **Scratch** and understand that commands are represented as blocks. Identify how sprites are controlled by commands, design and implement code and create code to replicate a given outcome.Explain and create a squence of connected commands and combine sounds. Design a project implementing algorithm as code.	**Data and Information-Branching Databases**:Develop an understanding of what a branching database is and how to create one. Use yes/no questions to gain an understanding of what attributes are and how to use them to sort groups of objects. Create physical and on-screen branching databases. Create an identification tool using a branching database. Consider real-world applications for branching databases.	**Creating Media-Desktop Publishing:**Learn the terms 'text' and 'images' used to communicate messages. Use desktop publishing software and consider choices of font size, colour and type to edit and improve premade documents. Learn the terms 'templates', 'orientation', and 'placeholders'. Make their own template. Add text and images to create their own pieces of work using desktop publishing software and evaluate how and why desktop publishing is used in the real world.	**Programming -Events and Actions In Programs:** Explore the links between events and actions. Move a sprite in four directions.Explore movement within the context of a maze, using design to choose an appropriately sized sprite. Use pen blocks. Draw lines with sprites and change the size and colour of lines. Design and code their own maze tracing program.
Y4 Computing	**Computer Systems and Networks: The Internet** - Networks, Sharing Information, Websites, The Web.	**Creating Media - Audio Production:** Digital Recording, Recording Sounds, Podcast, Editing, Combining audio, Evaluating	**Programming A - Repetition in Shapes:** Screen Turtle, Letters, Repeated Patterns, Decomposition, Creating a Programme	**Data and Information - Data Logging:** Answering questions, Data Collection, Logging, Analysing Data, Using Data	**Creating Media - Photo Editing:** Changing images, Changing Composition, Different usage, Retouching, Fake images, Making and evaluation publication.	**Programming B:** Using Loops, Different Loops, Animation, Modification, Design and Create game
Y5 Computing	**Computing systems and networks**: Systems. Computer systems. Searching the web.	**Creating Media**: Videos - Filming, storyboards, importing and editing and evaluation.	**Data and information** - creating and using computer databases.	**Creating media** - drawing, creating and manipulating objects in a vector drawing.	**Programming A** - Designing, writing and testing algorithms using Scratch and Microbits.	**Programming B** - Exploring, planning, testing and evaluating algorithms using Microbits.
Y6 Computing	**Computing systems and networks**: Data transfer; how we communicate using technology; evaluate methods of communication.	**Creating media**: What makes a good way page; design and evaluate website; copyright and fair use of media.	**Programming A**; Variables on games; follow the Use-Modify-Create model to create own project.	**Data and Information**: Organise data into columns and rows; use formulas and produce calculated data.	**Creating media**: use a computer to produce 3-D models; move, resize and duplicate objects.	**Programming B**: Program a physical device.