Computing – Curriculum Overview

	Autumn	Spring	Summer
EYFS Topic	Interactivity – using technology	Coding and Algorithms - Beebots	STEM, Art and DT
Overview	- Using the interactive whiteboard - drawing tools, tracing numbers and letters, selecting colours and shapes. - Using microphones to record traditional songs and nursery rhymes – play back	- Using Beebots for basic programming – navigate the Beebot out of an area – link to current topic.	- Introduce online safety – How to stay safe online, what to do if they see something that affects them, having regular screen breaks. - Begin using technology – iPads – interactive games and navigating the interface – how to look after technology. - Technology – discover all the different technology devices they may have at home or in school and their uses and functions.
Prior Learning	New learning	New learning	EYFS - Interactivity
Future Learning	Year 1- Word Processing using Microsoft Word	Year 1- Beebots	Year 1- Create an E-book
Year 1 Topic	Data and Word processing - Word Processing using Microsoft Word	Coding and Algorithms - Beebots	STEM, Art and DT – Create an E-book
Overview	- Online safety – How to stay safe online, what to do if they see something that affects them, safe searching. - Google search/Kiddle search – Finding different style images (clipart, photos etc) through filtering. Learning to copy and paste to a word document. - Microsoft Word – Word processing – Learning to open and save a document, using basic typing skills – space, capital letter, full stop and introduce formatting – font, size, colour.	- Online safety – How to stay safe online, what to do if they see something that affects them, communicating safely online. Ensuring personal information isn't shared. - Beebots – Develop using language such as 'forward, backwards, turn' to program the robots to move in certain ways. Start to look at when instructions are not clear and begin debugging the errors.	- Online safety – Applying online safety knowledge to know what good choices are and to help others make them online. - E-book – Design a story using programmes like Pages. Use phonic sounds to help with writing. Draw, take or search for images they want to add. Can link with Science or Topic.
Prior Learning	EYFS – Interactivity – using technology	EYFS – Beebots	EYFS – Using technology safely

Future Learning	Y2 – Word processing using Microsoft PowerPoint	Y2 – Coding and algorithms using Scratch	Y3 – Creating an E-book using Book Creator
Year 2 Topic	Data and Word processing – Word processing using Microsoft PowerPoint	Coding and Algorithms - Scratch	STEM, Art and DT – Creating Music using GarageBand
Overview	- Online safety – How to stay safe online, what to do if they see something that affects them, safe searching – Identifying what is appropriate and inappropriate content. - Google research – Endangered animals and climate change (linked with Literacy) – Used to create a Microsoft PowerPoint on how to reduce/stop them. Children will learn to copy and paste onto the PowerPoint, use basic typing skills and will be able to save and open the document.	- Online safety – Understanding online bullying and its consequences. - Scratch – Begin to write algorithms to program sprites on screen. Children will create algorithms that enable the sprites to move in different ways. Begin to look at debugging where the program does not execute as expected.	- Online safety – Ensuring personal information and passwords are not shared. - GarageBand – Using this music creator, children will explore creating and layering different sounds to create music reflective of a mood.
Prior Learning	Y1 – Word processing using Microsoft Word	Y1 – Coding and algorithms using Beebots	EYFS – Using technology safely
Future Learning	Y6 – Word processing and creating presentations using Microsoft PowerPoint	Y3 – Coding and algorithms using Scratch	Y3 - Creating an E-Book using Book Creator
Year 3 Topic	Data and Word processing – Data processing using Microsoft Excel	Coding and Algorithms – Scratch	STEM, Art and DT – Creating an E-Book using Book Creator
Overview	- Online safety – How to stay safe online, what to do if they see something that affects them, safe searching and online age restrictions. - Collecting data and Microsoft Excel – Children to begin to learn how to use spreadsheets, how to input data and to create basic formulas using Microsoft Excel.	- Online safety – Understanding online bullying (cyberbullying) and its consequences. - Scratch – Creating an algorithm to use a sprite to create shapes. This then develops onto using repeated coding to duplicate shapes and patterns. Children to debug when faced with errors.	- Online safety – Ensuring personal information and passwords are not shared. - Book Creator – Children to create a book on the app, linked with their Literacy lessons. Create a fiction or non-fiction book with images.

Prior Learning	Y1 – Saving and opening a document	Y2 – Coding and Algorithms using Scratch	Y1 – Creating an E-Book
Future Learning	Y4 – Data processing using Microsoft Excel	Y4 - Coding and Algorithms using Scratch	Y4 – Creating a virtual tour of the school
Year 4 Topic	Data and Word processing – Data processing using Microsoft Excel	Coding and Algorithms - Scratch	STEM, Art and DT – Virtual tour of the school
Overview	- Online safety – How to stay safe online, what to do if they see something that affects them, safe searching. - Collecting data and Microsoft Excel – Children to conduct surveys and questionnaires within the class to then input this into Microsoft Excel. They then will create formulas to gather the data and create graphs from that data.	- Online safety – Ensuring personal information and passwords are not shared. - Scratch – Children to build a quiz game with responses based on the input given. The addition of sound effects will also be added to create a sense of excitement around the game. Children to debug when faced with errors.	- Online safety – Understanding how to be a responsible digital citizen. - Virtual tour via video for new starters – Children to plan a script (using Microsoft Word) and record a tour of the school and what it has to offer using iPads to record and put it together using iMovie.
Prior Learning	Y3 – Data processing using Microsoft Excel	Y3 – Coding and algorithms using Scratch	Y1 – Word processing using Microsoft Word
Future Learning	Y5 – Word processing using Microsoft Publisher	Y5 - Coding and algorithms using Scratch	Y5 – Stop motion animation
Year 5 Topic	Data and Word processing – Word processing using Microsoft Publisher	Coding and Algorithms - Scratch	STEM, Art and DT – Stop motion animation
Overview	- Online safety – How to stay safe online (introducing cautions with social media), what to do if they see something that affects them, safe searching. - Research and Microsoft Word/Publisher brochure – Children to create a brochure based on their current topic, using research on Google/Kiddle to support and get images for their brochure.	- Online safety – Behaviour online (both the children's and others). - Scratch – Catch a minibeast game – Children to create an algorithm and build a code for a game where the player gains points for catching a minibeast that appears in random places on the screen. Children to debug where errors arise.	- Online safety – Keeping personal information safe and creating strong passwords. - Stop-motion animation – Using toys or Lego to create a story based on their chosen Topic – Children build the sets and take photos of subtle movements with their toys or Lego and put them together on iMovie.

Prior Learning	Y1 – Word processing using Microsoft Word	Y4 – Coding and algorithms using Scratch	Y4 – Virtual tour of the school
Future Learning	Y6 – Word processing using Microsoft PowerPoint	Y6 - Coding and algorithms using Scratch	Y6 – Coding and algorithms using Scratch (animation)
Year 6 Topic	Data and Word processing – Word processing using Microsoft PowerPoint	Coding and Algorithms - Scratch	STEM, Art and DT – Sphero robots
Overview	- Online safety – How to stay safe online including dealing with people online, what to do if they see something that affects them, safe searching. - Google research and Microsoft PowerPoint – Children to research a chosen topic (chosen by teacher or students) using Google and then create a presentation on it using Microsoft PowerPoint, making it eye-catching and relevant, using images to support their topic and using fonts, colour and transitions to bring it to life.	- Online safety – Understanding online bullying and its consequences. Introducing cautions with social media and age restrictions. - Scratch – Children to create animations and begin developing code for a sequence of actions and commands including broadcasting messages. This will lead to beginning sequencing events to create a story narrative. Children to debug when faced with errors.	- Online safety – Applying online safety knowledge to online activities to be a responsible digital citizen. - Sphero robot – Using algorithms and coding to direct the robot remotely via an app. Learning to debug where there are errors and fixing them so that the programme runs smoothly.
Prior Learning	Y2 – Word processing using Microsoft PowerPoint	Y5 – Coding and algorithms using Scratch Y5 – Stop motion animation	Y5 – Coding and algorithms using Scratch
Future Learning	KS3	KK3	KS3