Computing yearly overview Year 1 and Year 2

Computing is a subject that is taught every half term in Key Stage One following the Teach Computing scheme. The 2021 statutory framework for the Early Years Foundation stage does not have specific technology objectives. We will still continue to provide children will opportunities to access computing across the curriculum. Children in the Early Years are encouraged to follow their interests in regards to computing and have access to a range of technology in their free flow time.

	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EYFS	We use digital devices safely and respectfully. Children will know what digital devices they have access to in and outside of school. They will know they must use kind hands and share. They will think about possible outcomes that may happen if they do not use devices safely.	We use technology purposefully Children will begin to develop an understanding of what technology is and how technology helps us. Children will begin to see how different technologies can be used for different purposes.	We tell a grown-up if we feel worried. Children will be able to name adults that they trust to tell if they see something online that upsets or worries them. Children will know that it is always best to tell an adult about anything they do or see online.		We stick to what is age appropriate. Children will understand what an age restriction is and why they are there. They will know that they should not access digital content that is too old for them.	We keep personal details private Children will begin to learn about what 'personal details are' They will know to never talk to people online that they do not know in real life.
Year 1	**Computing systems and networks- Technology around us** Children will develop their understanding of technology and how it can help them. They will become more familiar with the different components of a computer by developing their keyboard and mouse skills, and also start to consider how to use technology responsibly. **End of unit aim:** By the end of this unit, children should be able to explain how technology helps us and know the	**Creating media- digital pictures** Children will begin to explore the world of digital art and use an exciting range of creative tools. Children will create their own paintings, while getting inspiration from a range of other artists. Children will consider their preferences when painting with, and without, the use of digital devices. **End of unit aim:** By the end of this unit, children should be able to make marks on the screen using a range of tools. Children will choose appropriate	**Programming- Moving a robot** Children will begin to look at the concepts of early programming. Children will explore using individual commands. They will identify what each floor robot command does and use that knowledge to start predicting the outcome of programs. Children will be introduced to the early stages of program design through the introduction of algorithms. **End of unit aim:** By the end of this unit, children should be able to follow and give	**Data and information- Grouping data** Children will begin by using labels to put objects into groups and count the objects, before and after the objects are grouped. They will then begin to demonstrate their ability to sort objects into different groups, based on the properties they choose. Finally, children will use their ability to sort objects into different groups to answer questions about data. **End of unit aim:** By the end of this unit, children	**Creating media- digital writing** Children will use a computer to create and change text. They will familiarise themselves with typing on a keyboard and begin using tools to change the look of their writing. They will compare the differences between using a computer and writing on paper to create text. **End of unit aim:**	**Programming- Animation** Children will begin to use the programme ScratchJr. Children will explore the way a project looks by investigating sprites and backgrounds. They will use programming blocks to use, modify, and create programs. Children will continue to learn program design through algorithms. **End of unit aim:**

	main parts of a computer. Children will begin to develop mouse and keyboard skills and use these for a purpose. Children will begin to save and retrieve their work.	paint tools and colours and change the brush size accordingly.	commands. Children will know the difference between forwards, backwards, left and right turns and experiment with programming a Beebot. Children will begin to predict the outcome of an algorithm and debug as necessary.	should be able to count and label a group of objects. Children can sort objects based on their properties and record and share what they have found.	By the end of this unit, children should be able to use keys and type using them onto a word processor. Children will use the toolbar for a range of purposes, including changing the font, bold, italics and underline.	By the end of this unit, children should be able to give commands to a sprite and create an algorithm for it. Children will create their own projects.
Year 2	**Computing systems and networks- IT around us** Children will build upon what they learnt in year one by discussing how IT is being used for good in our lives and explore how it benefits them in wider society. Children will discuss the responsible use of technology, and how they can make smart choices when using it. **End of unit aim:** By the end of this unit, children should be able to recognise the uses of IT both in and out of school. Children will be able to say how and why we must use technology safely.	**Programming- Robot algorithms** Children will continue to deepen their understanding of algorithms from year one. Children will develop an understanding of instructions in sequences and the use of logical reasoning to predict outcomes. They will use given commands in different orders to investigate how the order affects the outcome. They will also learn about design in programming. They will develop artwork and test it for use in a program. They will design algorithms and then test those algorithms as programs and debug them. **End of unit aim:** By the end of this unit, children should be able to follow and give instructions. Children can predict the outcome of the algorithm. Children can plan and create an	**Creating media- digital photography** Children will learn to recognise that different devices can be used to capture photographs and will gain experience capturing, editing, and improving photos. Finally, they will use this knowledge to recognise that images they see may not be real. **End of unit aim:** By the end of this unit, children should be able to use digital devices to take photos and think about the choices they make in order to take better photos. Children will use tools to edit photos and recognise photos that have been changed.	**Data and information- Pictograms** Children will learn the term 'data' and they will begin to understand what data means and how this can be collected in the form of a tally chart. They will learn the term 'attribute' and use this to help them organise data. They will then progress onto presenting data in different ways and use the data to answer questions. **End of unit aim:** By the end of this unit, children should be able to use tally charts and pictograms to represent data. Children will answer questions based on the data they have collected.	**Creating media- digital music** Children will discuss how music makes them feel. They will make patterns and use those patterns to make music with both percussion instruments and digital tools. They will also create different rhythms and tunes, using the movement of animals for inspiration. Learners will share their creations and compare creating music digitally and non-digitally. **End of unit aim:** By the end of this unit, children should be able to identify patterns in music. Children will experiment with sound using a computer and will use a computer to create music for purpose.	**Programming- Programming quizzes** Children will recap on learning from the Year 1 Scratch Junior programming unit. Children begin to understand that sequences of commands have an outcome and make predictions based on their learning. They use and modify designs to create their own quiz questions in ScratchJr and realise these designs in ScratchJr using blocks of code. Finally, learners evaluate their work and make improvements to their programming projects. **End of unit aim:** By the end of this unit, children should be able to predict the outcome of commands. Children will create a program using their own design.

		algorithm.				

E-Safety strands run throughout the whole year and we be revisited regularly.