Year: 1/2 Subject: Computing PoS: Online Safety- Digital Literacy	Topic Question/Title: How can we stay safe online?	Term - Autumn 1 Curriculum - A

Prior Knowledge	**Key Vocabulary**	**Outcome**
All children have completed online safety in the previous year, they will have completed Autumn 1 units from Project Evolve and completed activities throughout the year in PSHE and Internet Safety Week. They will have looked at: Children in EYFS have looked at how to use devices safely and how long to use the devices for. Children in year 1- looked at project evolve and have completed a unit of work on it. They have looked at how to use the internet safely, permission, online bullying, showing respect, real/ made up things online, online ownership and what to do if we need help online.	Self-image, identity, online, internet, online relationships, online reputation, online bullying, responsible, online information, personal information, technology, privacy, security, ownership, copy right.	Children to present to the class a demonstration of how to be respectful in person and how to be respectful online.
Future Learning Children will continue this learning in any unit using the internet or devices. Online safety should be recapped at every opportunity when using devices in and out of school. Children will also have internet safety day later in the year. In year 2- children will recap their learning of online safety and then continue to develop their understanding of online safety using similar things. In year 3- Children will progress to looking in more detail of online safety. They will look at identity, respectful behaviour, how to help and support with online behaviour, to understand acceptable use of online platforms, protecting privacy online and importance of limiting time spent online.	**Stimulus** Watch https://www.youtube.com/watch?v=d5kW4pI_VQw Bring in something that belongs to them or others. **First hand experiences (enrichment)**	**World of Work** General employment skills for a variety of jobs. Media Computer programmer/ designer Social media influencer.

National Curriculum PoS	Key Knowledge	Possible evidence
• Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Self- image and identity To give examples of issues online that make someone feel sad, worried, uncomfortable or frightened. Online relationships To explain who I should ask before sharing things about myself or others online. To describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. To explain how it might make others feel if I do not ask permission to share something online. Online reputation To know who to talk to if something has been put online without consent or if it is incorrect. Online Bullying To explain what bullying is and how people may bully others and how bullying can make someone feel. To talk about how anyone can get help from bullying. Managing Online information To explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. Heath, well- being and Lifestyle I can explain simple guidance for using technology in different environments and settings. Privacy and Security I can explain and give examples of what is meant by 'private'. I can describe and explain some rules for keeping personal information private. Copyright and Ownership I can recognise that content on the internet may belong to other people.	See project evolve resources.

Year: 1/2 Subject: Computing PoS: Digital literacy- Technology all around us.	Topic Question/Title: Here, There Technology Everywhere!	Term - Autumn 2 Curriculum - A

Prior Knowledge	Key Vocabulary	Outcome
In EYFS, children will have looked at and explored a range of devices, including Computer, laptops, iPads, tablets and cameras. In Year 1 the children will have completed many devices using a range of devices including laptops, iPads and cameras. They will have explored presenting information in a range of ways and using a range software to achieve a variety of purposes.	Technology, digital device, computer, laptop, camera, tablet, mouse, keyboard.	Information poster/ video about technology uses.
Future Learning In year 2, the children will continue their understanding by working on units using a variety of different devices such as BeeBots, iPads, laptops and cameras. In year 3, the children will further this by looking at devices in more detail, looking into networks, the internet and how the devices send messages to each other. They will also expand on this by looking at why we use different devices and when is the most appropriate for them to be used. They will explore the functions of devices and which device would be the best to use for the given purpose.	**Stimulus** Find and use technology in the classroom. **First hand experiences (enrichment)**	**World of Work** IT Technician

National Curriculum PoS	Key Knowledge	Possible evidence
• To recognise common uses of information technology beyond school • To use technology purposefully to create, organise, store, manipulate, and retrieve digital content • To use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	To explain that technology is something that can help us To identify examples of technology. To explain how examples of technology help us To recognise that a computer is an example of technology. To recognise that choices are made when using technology Online Safety Focus: Online relationships To explain who I should ask before sharing things about myself or others online. To describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. To explain how it might make others feel if I do not ask permission to share something online.	• Children to consider common uses of information technology in a context that they are familiar with. They will identify examples of IT and be able to explain the purpose of different examples of IT in the school setting. • Children to consider how they use different forms of information technology safely, in a range of different environments. They will list different uses of IT and talk about the different rules that might be associated with using them. Children to recap-how rules can help keep them safe when using IT. • Learners will think about the choices that are made when using information technology, and the responsibility associated with those choices. They will use IT in different types of activities and explain that sometimes they will need to use IT in different ways.
	Application of Key Skills	Possible evidence
	To recognise that some technology can be used in different ways To identify the main parts of a computer. To use a mouse in different ways. To use a keyboard to type To show how to use technology safely	• Children to identify devices that are computers and consider how IT can help them both at school and beyond. • Children to begin to explore IT in environments beyond school, including home and familiar places such as shops. They will talk about the uses of IT in these environments and be able to explain that IT is used in many workplaces • Children to sort activities based on whether they use IT or not and will be able to say why we use IT.

Year: 1/2 Subject: Computing PoS: Computer Science	Topic Question/Title: Machine Music	Term - Spring 1 Curriculum - A

Prior Knowledge Learners should have experience of making choices on a tablet/computer, and they should be able to navigate within an application. Learners should also have some experience of patterns. In EYFS, children will have looked at and explored a range of devices, including Computer, laptops, iPads, tablets and cameras. In Year 1 the children will have completed many devices using a range of devices including laptops, iPads and cameras. They will have explored presenting information in a range of ways and using a range software to achieve a variety of purposes. All children have just completed Autumn 2 unit of work-, which looked at what a digital device is, why we use them and how they are helpful. They have also looked at using computers	**Key Vocabulary** Music, rhythm, pattern, sequence, save, open, improvements, digital devices, instructions.	**Outcome** Piece of music on chrome music lab
Future Learning This unit progresses students' knowledge through listening to music and considering how music can affect how we think and feel. Learners will then purposefully create rhythm patterns and music. In year 2, the children will progress into using digital devices for other purposeful reasons for example digital photography and digital painting. In these units, the children will look at why these devices are useful and how they can make physical tasks better. In year 3/4 , the children will be working on further music units by using scratch. They will look at digital musical instruments and how this software can be used to make musical notes for a scratch piece of music.	**Stimulus** Listening to music **First hand experiences (enrichment)**	**World of Work** DJ / Musician

National Curriculum PoS	Key Knowledge	Possible evidence
• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Create and debug simple programs • Use logical reasoning to predict the behaviour of simple programs • Use technology purposefully to create, organise, store, manipulate and retrieve digital content	To identify that computers can be used to play sounds of different instruments To identify that the same pattern can be represented in different ways To compare playing music on instruments with making music on a computer Online Safety Focus: Copyright and Ownership I can recognise that content on the internet may belong to other people.	The learners will listen to and compare two pieces of music from *The Planets* by Gustav Holst. Explore how music can be used in different ways to express emotions and to trigger their imaginations. Once completed get the children to describe how it makes them feel and what choices the made to complete their music.
	Application of Key Skills	Possible evidence
	To experiment with musical patterns on a computer To experiment with different sounds on a computer To use a computer to compose a rhythm and a melody on a given theme To evaluate a musical composition created on computer. To improve a musical composition created on a computer	Create patterns and use those patterns as rhythms. Use untuned percussion instruments and computers to hear the different rhythm patterns that they create. Experiment with the pitch and duration of notes in computers to create their own piece of music, which they will then associate with a physical object — in this case, an animal. Use a computer to create and refine musical patterns. Create a piece of music using an animal as inspiration. Think about their animal moving and create a rhythm pattern from that. Once they have defined a rhythm, they will create a musical pattern (melody) to go with it. Retrieve and review their work. Spend time making improvements and then share their work with the class.

Year: 1/2 Subject: Computing PoS: Information Technology	Topic Question/Title: Terrific Typers	Term - Spring 2 Curriculum - A

Prior Knowledge
Learners should have experience of making choices on a tablet/computer, and they should be able to navigate within an application. Learners should also have some experience of patterns.
In EYFS, children will have looked at and explored a range of devices, including Computer, laptops, iPads, tablets and cameras.
In Year 1 the children will have completed many devices using a range of devices including laptops, iPads and cameras. They will have explored presenting information in a range of ways and using a range software to achieve a variety of purposes.
All children have just completed Autumn 2 unit of work-, which looked at what a digital device is, why we use them and how they are helpful. They have also looked at using computers

Key Vocabulary
Text, keyboard, letters, numbers, space key, backspace, undo, redo, open, save.

Outcome
Edited text linked to Geography/Science

Future Learning
Knowledge and understanding of using computers to create and manipulate digital content, focussing on using a word processor progresses through every future year group. The learners will develop their ability to find and use the keys on a keyboard in order to create digital content.
The children are introduced to manipulating the resulting text, making cosmetic changes, and justifying their reason for making these changes. Following this unit for example, learners will further develop their digital writing skills in the Year 3 – 'Desktop publishing' unit and the Year 6 – 'Web page development' unit.

Stimulus
Posters / Books / Adverts

First hand experiences (enrichment)

World of Work
Journalist /Author

National Curriculum PoS

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key Knowledge	Possible evidence
• To recognise that a keyboard is used to enter text into a computer • To recognise that text can be changed • To recognise that the appearance of text can be changed • To recognise that text can be edited. • To consider the impact of choices made Online Safety Focus: Managing Online information To explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. Privacy and Security I can explain and give examples of what is meant by 'private'. I can describe and explain some rules for keeping personal information private.	• Children to justify their use of certain tools when changing text. The learners will decide whether the changes that they have made have improved their writing and will begin to use 'Undo' to remove changes. • Children to be able to explain what tool from the toolbar they have used to change their writing. • Children to make comparisons between using a computer for writing and writing on paper.
Application of Key Skills	**Possible evidence**
• To use letter, number, and Space keys to enter text into a computer. • To use punctuation and special characters • To use the Backspace key to remove text. • To choose options to achieve a desired effect • To use Undo	• Children to familiarise themselves with a word processor and think about how they might use this application in the future. • Also identify and find keys, before adding text to their page by pressing keys on a keyboard. • Children will begin to use the Backspace key to remove text from the computer. • Use the Caps Lock key to add capital letters to their writing and will begin thinking about how to use this successfully • To begin exploring the different buttons available on the toolbar in more detail, and use these to change their own text. • Children to explore the different fonts available to them and change the font for their lost toy poster.

Year: 1/2 Subject: Computing PoS: Robot algorithms	Topic Question/Title: Beep Beep- Bee-Bots	Term - Summer 1 Curriculum - A

Prior Knowledge	**Key Vocabulary**	**Outcome**
Children have had some experience of creating short programs using floor robots and predicting the outcome of a simple program, this could have been in EYFS. This unit progresses children's knowledge and understanding of algorithms and how they are implemented as programs on digital devices. Children in year 2, will have some understanding of sequencing, commands and debugging as they have completed a unit on Scratch JR in year B.	Bee-bot, command, sequence, instruction, algorithms, robot, debug.	Children to create a treasure map for the bee-bots to follow.
Future Learning Year 2s will continue this learning into year 3, where they progress to use Scratch and looking at events and actions and repetition within commands. They will look how commands must be sequenced and will also continue to develop their understanding of debugging algorithms. Year 1s will continue this learning into the next unit on scratch and into Year 2 where they will look at Scratch Jr but looking at how an animation works.	**Stimulus** Videos of Robots. **First hand experiences (enrichment)**	**World of Work** Programmer

National Curriculum PoS	Key Knowledge	Possible evidence
• Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions • Create and debug simple programs • Use logical reasoning to predict the behaviour of simple programs	• To recall words that can be enacted. • To explain what a given command does • To understand that a program is a set of commands that a computer can run. Online Safety Focus: Online Bullying To explain what bullying is and how people may bully others and how bullying can make someone feel. To talk about how anyone can get help from bullying.	• Explain the choices that I made for my mat design • Show the difference in outcomes between two sequences that consist of the same instructions • Compare my prediction to the program outcome • Outline what their task is by identifying the starting and finishing points of a route. This outlining will ensure that learners clearly understand what they want their program to achieve.
	Application of Key Skills	Possible evidence
	• To predict the outcome of a command on a device. • To list which commands can be used on a given device. • To run a command on a floor robot. • To choose a command for a given purpose. • To choose a series of commands that can be run as a program. • To build a sequence of commands in steps. • To combine commands in a program.	• Follow instructions given to them and give instructions to others. • Combine several instructions into a sequence that can then be issued to another learner to complete. • Create sequences using the same instructions in different orders. They will then test these sequences to see how the different orders affect the outcome. • Design, create, and test a mat for a floor robot. This will introduce the idea that design in programming not only includes code and algorithms, but also artefacts related to the project, such as artwork. • Design an algorithm to move their robot around the mat that they designed • Find and fix errors in their algorithms and programs. They will understand this process to be 'debugging'.

Year: 1/2 Subject: Computing PoS: Computer Science	Topic Question/Title: Quizzes & Questions	Term - Summer 2 Curriculum - A

Prior Knowledge Children have looked at algorithms and sequencing in their moving robots unit. The children have looked at instructions and the importance of the order. Children have also looked at debugging these robot algorithms. Some year 2's will have already completed some work on basic algorithms using Scratch Jr as well in their year B curriculum- for some this will be new learning.	**Key Vocabulary** Scratch, algorithm, devices, instructions, organise, store, edit, images, sequences, blocks, design, backgrounds, character, debug.	**Outcome** Create a quiz for a class
Future Learning Year 2s will continue this learning into year 3, where they progress to the full scratch version and look at Events and actions and repetition within commands. Year 1s will continue this learning into Year 2 where they will look at Scratch Jr again but looking at how an animation works.	**Stimulus/ First hand experiences (enrichment)** Kahoot/ Game show	**World of Work** Statistics / Data Analysis

National Curriculum PoS	Key Knowledge	Possible evidence
• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • Create and debug simple programs • Use logical reasoning to predict the behaviour of simple programs • Use technology purposefully to create, organise, store, manipulate and retrieve digital content	• To describe a series of instructions as a 'sequence' • To recall that a series of instructions can be issued before they are enacted • To use logical reasoning to predict the outcome of a program Online Safety Focus: Self- image and identity To give examples of issues online that make someone feel sad, worried, uncomfortable or frightened. Online relationships To explain who I should ask before sharing things about myself or others online. To describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. To explain how it might make others feel if I do not ask permission to share something online.	Children to 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, children should evaluate their work and make improvements to their programming projects.
	Application of Key Skills	Possible evidence
	• To choose a series of words that can be enacted as a sequence. • To choose a series of commands that can be run as a program • To test a prediction by running the sequence. • To run a program on a device.	Children to design and build their quizzes on Scratch Jr using the code blocks. Children to run their codes to allow for opportunities to debug and improve their designs and program.