

Pre-school Computing Planning Overview

Development Matters 2020

Ongoing provision throughout the year –

To explore how things, work. (Development matters 2021, Understanding of the World – The Natural World)

Practitioners should support how Technology and apps work through use of the Busy Things program throughout the year.

	1 st half term	2 nd half term
Autumn Picture perfect & Fantastic Festivals	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Freely let the children explore the devices alongside an adult</p> <p>Digital literacy Self image and Identity & Online Relationships - To know that you can say no and to know that people can use devices.</p>	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Information Technology and Computer Science –</p> <p>Winter Warmers, Barefoot Computing unit - Feed the birds, lets make and igloo, scarves for a snowman – Teach the foundations of these following computational skills through exploration of the natural world.</p> <ul style="list-style-type: none"> • Algorithms • Creating • Collaboration • Decomposition • Tinkering • Persevering
Spring Tell a tale & Wonderful world	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Freely let the children explore the equipment independently of an adult</p> <p>Digital literacy – Online Reputation, Online Bullying & Managing Online Relationships</p> <p>Teach the children that the internet exists and that is the name. Through supporting lessons in PSED Teach the children that people can sometimes be unkind.</p>	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Information Technology and Computer Science –</p> <p>Springtime - Barefoot Computing unit – Junk Scarecrows, Rabbit Run, Seed Sequencing. - Teach the foundations of these following computational skills</p> <ul style="list-style-type: none"> • Creating • Pattern, • Logic • Algorithms • Decomposition • Collaborating
Summer Amazing Animals & Interesting Investigation	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Freely let the children explore the equipment independently of an adult.</p> <p>Set specific activities through Busy things to allow for the children to explore how this works</p> <p>Digital literacy Health, Wellbeing an Lifestyle, Privacy and Security & Copyright and Ownership – Teach children what rules are and that they should know that they have personal information (Your name, where you live) in addition to this children should know that all work can be named linking to Literacy and name writing.</p>	<p>Technology and apps through use of Busy things. Teaching children how to respect the school equipment</p> <p>Information Technology and Computer Science –</p> <p>Summer Fun- Barefoot Computing unit – Colour Collections, Journeys, Seaside Tangrams. - Teach the foundations of these following computational skills:</p> <ul style="list-style-type: none"> • Tinkering • Persevering • Patterns • Logic

- Decomposition
- Debugging
- Collaborating
- Algorithms

Reception Computing Planning Overview

	1 st half term	2 nd half term
Autumn Picture perfect & Fantastic Festivals	<p>Digital literacy Self image and Identity & Online Relationships (2 lessons) Teaching the knowledge you can say no online/offline and to know the various different ways in which you can communicate on the internet.</p> <p>Information technology – Photography and Digital Art Teach children how to take a photograph and how to use the photograph in the Apple photography app they can use the photo in Pic Collage Additionally teach the children how to use a painting app to create pictures of their own – Suggested app would be 2 simple storyboard app.</p>	<p>Information technology – Photography and Digital Art Augmented Reality and Virtual Reality – ARMaker Teach children what a QR code is and how they are used. Explore these around the classroom to being up pictures. Teach children what AR objects are through use of the app ARMaker. Children to explore dinosaurs in the classroom.</p>
Autumn CP/EP	Busy things app, free exploration of the iPad and the apps that they contain (Exploring technology)	
Spring Tell a tale & Wonderful world	<p>Digital literacy Online Reputation, Online Bullying & Managing Online Relationships (2 lessons) Teach children that they can put anything on the internet and that sometimes the people that we meet online are unkind and how this makes people feel- (Smarties the penguin resources) Exploring the ways in which you can find information on the internet –(Teaching children how to use Google and search engines)</p> <p>Information technology- Video Creation Teach children how to make a video and the difference between photography and videography review how they can watch these videos back. Use of the apple video function to record and playback videos.</p>	<p>Information technology- Animation Teaching the children and allowing them to explore the use of a simple animation app on the iPads. Knowing how to animate a simple image to speak in tole. And knowing how to add more than one character. Use of the Chatter kid app.</p>
Summer CP/EP	As above along with: freer use of the internet and YouTube to explore search engines	
Summer Amazing Animals & Interesting Investigation	<p>Digital literacy – Health, Wellbeing an Lifestyle, Privacy and Security & Copyright and Ownership (2 lessons) Teaching that rules keep us safe and that the children have personal information that they must not share with everyone. Understanding that anything they create belongs to them.</p> <p>Computer Science – Coding and programming. Children begin to explore programming by following simple algorithms. Teaching the term algorithms. What is the same and what is different in patterns? How can the fix problems? Teaching the term debug. Children to use beebots and mats. Children to access and begin to use Scratch Jr, A.L.E.X and the Bee-Bot app.</p>	<p>Information technology- Word Processing Encouraging the children to play touch screen games and to use keyboards on screen and in real life (In provision and role play) Begin to use dictated sentences in a digital device. Use of the word processing app and 2CAS to allow them to create a story.</p>
Summer CP/EP	As above along with: Keyboards and old mobile phones in provision.	

Year 1 Computing Planning Overview

	1 st half term	2 nd half term
Autumn Picture perfect & Fantastic Festivals	<p>Digital literacy Self-image and Identity & Online Relationships (2 lessons) Knowing that there are people online that can make you feel sad and how to interact with these people. Knowing that there are adults that you can speak to and when to speak to them.</p> <p>Information technology- Animation creating a cartoon To create a cartoon using the Chatter kids app. Use of stickers and filters to enhance a picture and animation. Children to have the opportunity to add a picture to an animation and create a story.</p>	<p>Computer science - Programming – Robot maze Knowing that the sequence of algorithms is important and understanding what it means to debug along with beginning to be able to debug. Children will begin to use simple device such as a Bee-Bot to begin to program AND an app alongside this. Children will go back and fix errors in their programming. Use Scratch Jr alongside Bee-Bots.</p>
Spring Tell a tale & Wonderful world	<p>Digital literacy Online Reputation, Online Bullying & Managing Online Relationships (2 lessons) Understanding that information stays on the internet forever and what information you should place online. Understanding the appropriate behaviours for online and using search engines to locate information knowing that you may encounter things that you do not want to see and how to deal with that (Smarties the Penguin resources- Year 1)</p> <p>Computer Science - Programming – Simple Algorithms Teaching the children what an algorithm is and how to write simple algorithms Use of the Daisy the Dinosaur app.</p>	<p>Information Technology - Video Creation To select images building on previous knowledge and begin to create a voice over for this. Children will begin to highlight and zoom in on images as they record. They should be taught how to pinch and swipe. Use of the Shadow Puppets EDU app.</p>
Summer Amazing Animals & Interesting Investigation	<p>Digital literacy – Health, Wellbeing and Lifestyle, Privacy and Security & Copyright and Ownership (2 lessons) Understanding the rules that keep children and adults safe online. Passwords are used to protect information and that we need to remember passwords. (Use the iPad password function to begin to teach this) Naming work is important and why we need to do this online particularly.</p> <p>Information Technology -Presentations -Storyboard Knowing that images can be used to create a simple story board and how to carry out the action of adding an image to one. Critically evaluate the work using the evaluate section of the DARES (introduces the children to this aspect of DARES scheme) Use Pic Collage for this.</p>	<p>Computer Science -Programming- Animations Building on the children’s knowledge of Algorithms. Children to successfully debug programs and locate and fix problems in their programming. This skill will be increasingly independent. Use of the Scratch JR app.</p> <p>Information Technology – Pictograms Linked to maths children will know how to sort images or text into two or more categories on a digital device. They will be taught how to collect data on a topic and subsequently know how to create a tally chart and pictogram. Use of the Pic Collage or Seesaw app.</p>

Year 2 Design and Technology Planning Overview

	1 st half term	2 nd half term
Autumn Picture perfect & Fantastic Festivals	<p>Digital literacy Self-image and Identity & Online Relationships (2 lessons) Understanding that other people may look and act differently online to real life. Online issues can make other people feel sad. Understanding that the internet can be used to communicate with people who you don't know as well s those that you do know Use Instagram and Twitter and Tik Tok as examples. Understanding that you have the right to say no and asking trusted adults about specific sites that need parental permission.</p> <p>Information Technology -Stop motion animations Understanding that simple stop motion animations can be created and how to do this. When completed children should be able to explain to others how this works. As part of the evaluation of the unit.</p>	<p>Computer Science – Knock, Knock Joke Building on their understanding of algorithms and debugging children are introduced to decomposition and how to break down objects/processes. Children will begin to use logical reasoning predict the outcome of simple programs. Use of the Scratch Jr app.</p>
Spring Tell a tale & Wonderful world	<p>Digital literacy Online Reputation, Online Bullying & Managing Online Relationships (2 lessons) Understanding the permeance of information placed on the internet and this can be seen by almost anyone. Understanding what bullying is (Linked to PSHE) and that experiencing bullying does not mean that you are at fault. Real and imaginary differences and that some things on the internet are 'made-up'</p> <p>Computer Science – Robot Helper Building on the children's knowledge and understanding of making logical predictions and understanding the process of decomposition. Use of the Scratch Jr app.</p>	<p>Information Technology - Masking Story Time Children will be taught to be able to use tools to add a range of effects to a video Children will begin to use a green screen to be able to begin to use techniques and masking with support.</p>
Summer Amazing Animals & Interesting Investigation	<p>Digital literacy – Health, Wellbeing and Lifestyle, Privacy and Security & Copyright and Ownership (2 lessons) Understanding that rules and guides assist people with accessing information online and technologies. Understating the difference between private and keeping things private. Children will need to be taught that the internet belongs to everyone and everyone should have access to it.</p> <p>Information Technology - Interactive image Children will build on their knowledge of voiceovers to adding voice labels to separate images. Use of the Thinglink app.</p>	<p>Information technology - Venn Diagrams Children will build on knowledge of collecting and sorting data links with handling data in maths. Children will use specific keys on the keyboard to enter information (Word processing) and use of the copy and paste tool. Children will also use a range of other keys such as caps lock to create capital letters. Children will be taught to sort date into Venn diagrams appropriately. Use of Pic collage app.</p> <p>Computer Science - Algorithms Building on the children's knowledge and understanding of making logical predictions and understanding the process of decomposition. Children will use different apps to program. Use of the Bee Bot app.</p>