Cheadle Catholic Infant School   Computing Overview 2021/22

Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	**Exploring ICT through role play e.g. telephones, cameras, keyboards etc.** Technology questionnaire (home) Technology hunt around school Different types of technology in role play areas for children to explore. Technology curiosity cube	**Data Handling- Leaf colour hunt- Pictogram** Children go for an autumn leaf hunt. Children collect different coloured leaves. Sort leaves into different criteria e.g. colour/size/shape Use 2Count to represent the amount of different types of leaves collected.	**Computational thinking- Story sequencing** Children to explore a range of familiar stories. Can they sequence pictures from these stories? What happened first? What comes next?	**Computer Science- Unplugged algorithms** Children to make tracks outdoors for cars to travel along (use vocab, forward, back, turn) Map out a large grid. Can children follow directions to get the car/toy to move from one square to another? Did it work? If not what went wrong?	**ICT- Mini Mash- 2Paint** Use 2paint programme to create a picture (e.g.garden) Learn to use tools on the paint programme to add and change effects.	**Exploring programmable toys- e.g. robots, remote control cars etc** Children to explore a range of programmable toys e.g. remote control cars, robots. Can the children work the toys What do the children notice about the toys and how they work?
Reception	**ICT- IPADS- explore age appropriate apps.** How to use an ipad- turn it on, open an app, close an app, turn off the ipad. Explore games on the interactive screen in continuous provision Explore apps on ipad during continuous provision.	**ICT-Mini Mash-2Paint** Use 2paint programme to create a picture (fireworks) Learn to use tools on the paint programme to add and change effects. Use the keyboard to add a label/caption to their picture	**ICT- Taking photos Mini Mash- Mash cams** Learn how to take a good photo (how to hold the ipad, steady hand, good focus) View photos Take photo of themselves/friend and turn it into a character in Mini Mash (Mash Cams) Children add text to the speech bubble for their character	**ICT- Mini Mash- Simple City** Children to use the Simply City program in Purple mash. Children to access different areas of the city. Children to explore the different activities. Can they complete the simple activities. E.g. create a garden and make the flowers grow.	**Computer Science- unplugged algorithms** Blindfold instructions Make own grid in the playground and guide a partner along it. Back to back drawing (instructions) Guide toy car along a grid Monster drawing following teachers instructions.	**Computer science- Beebots** Learn how to control a Bee bot Guide Bee bot to an end point on a marked out grid. Sequence instructions to show Bee bots journey Record Bee bot instructions using symbols.
Year 1	**PM Unit 1.1 Exploring Purple Mash and Online Safety (4wks)** Log in safely Create own avatar Learn to save work in my folde	**PM Unit 1.4 Lego Builders (3wks)** To compare the effects of adhering strictly to instructions to completing tasks	**PM Unit 1.6 Animated Story Books (5wks)** To introduce e-books and the 2Create a Story tool.	**PM Unit 1.7 Coding (6wks)** To understand what instructions are and predict what might happen when they are	**PM Unit 1.3 Pictograms (3wks)** To understand that data can be represented in picture format. To contribute to a class	**PM Unit 1.9 Technology Outside School (2wks)** To walk around the local community and find examples of where technology is used.

	Explore the tools in PM **PM Unit 1.2 Grouping and sorting (2wks)** To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.	without complete instructions. To follow and create simple instructions on the computer. To consider how the order of instructions affects the result. **PM Unit 1.5 Maze Explorers (3wks)** To understand the functionality of the direction keys. To understand how to create and debug a set of instructions (algorithm). To use the additional direction keys as part of an algorithm. To understand how to change and extend the algorithm list. To create a longer algorithm for an activity **Beebots**	To add animation to a story. To add sound to a story, including voice recording and music the children have composed. To work on a more complex story, including adding backgrounds and copying and pasting pages. To share e-books on a class display board.	followed. To use code to make a computer program. To understand what object and actions are. To understand what an event is. To use an event to control an object. To begin to understand how code executes when a program is run.	pictogram. To use a pictogram to record the results of an experiment. **PM Unit 1.8 Spreadsheets (3wks)** To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash. To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count.	To record examples of technology outside school

Year 2	**Logging in and saving work on PM (2wks)**
	
	PM Unit 2.1 Coding(5wks)
	To understand what an algorithm is.
	To create a computer program using an algorithm.
	To create a program using a given design.
	   To understand the collision detection event.
	   To understand that algorithms follow a
		PM Unit 2.2 Online Safety (3wks)
		To know how to refine searches using the Search tool.
		To use digital technology to share work on Purple Mash to communicate and connect with others locally.
		To have some knowledge and understanding about
			PM Unit 2.4 Questioning (5wks)
			To learn about data handling tools that can give more information than pictograms.
			To use yes/no questions to separate information.
			To construct a binary tree to identify items.
			To use 2Question (a binary tree database)
				PM Unit 2.6 Creating Pictures (5wks)
				To learn the functions of the 2Paint a Picture tool.
				To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir).
				To recreate Pointillist art and look at the work of pointillist artists such as Seurat.
					PM Unit 2.7 Making Music(3wks)
					To make music digitally using 2Sequence.
					To explore, edit and combine sounds using 2Sequence.
					To edit and refine composed music.
					To think about how music can be used to express feelings and create tunes which depict feelings.
					To upload a sound from a
						PM Unit 2.3 Spreadsheets (4wks)
						To use 2Calculate image, lock, move cell, speak and count tools to make a counting machine.
						To learn how to copy and paste in 2Calculate.
						To use the totalling tools.
						To use a spreadsheet for money calculations.
						To use the 2Calculate equals tool to check calculations.

	sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To understand the function of buttons in a program. To understand and debug simple programs	sharing more globally on the Internet. To introduce Email as a communication tool using 2Respond simulations. To understand how we should talk to others in an online situation. To open and send simple online communications in the form of email. To understand that information put online leaves a digital footprint or trail. To identify the steps that can be taken to keep personal data and hardware secure. **PM Unit 2.5 Effective Searching (3wks)** To understand the terminology associated with searching. To gain a better understanding of searching on the Internet. To create a leaflet to help someone search for information on the Internet.	to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information.	To learn about the work of Piet Mondrian and recreate the style using the lines template. To learn about the work of William Morris and recreate the style using the patterns template. To explore surrealism and eCollage.	bank of sounds into the Sounds section. To record and upload environmental sounds into Purple Mash. To use these sounds to create tunes in 2Sequence **PM Unit 2.8 Presenting Ideas (3wks)** To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class.	To use 2Calculate to collect data and produce a graph.