	Characteristic	cs of effective learning			
Playing and exploring *engagement*	Active learning *motivation*		Creating and thinking critically *thinking*		
Finding out and exploring	Being involved and concentrating		Have their own ideas:		
Showing curiosity about objects, events and people	Maintaining focus on their activity fo	r a period of time	Thinking of ideas		
Using senses to explore the world around them	Showing high levels of energy, fascin	ation	Finding ways to solve problems		
Engaging in open-ended activity	Not easily distracted		Finding new ways to do things		
Showing particular interests	Paying attention to details		Making links		
Playing with what they know	Keeping on trying		Making links and noticing patterns in their experience		
Pretending objects are things from their experience	Persisting with activity when challeng	ges occur	Making predictions		
Representing their experiences in play	Showing a belief that more effort or o	Showing a belief that more effort or a different approach will pay off		Testing ideas	
Taking on a role in their play	Bouncing back after difficulties			Developing ideas of grouping, sequences, cause and effect	
Acting out experiences with other people	Enjoying achieving what they set o	ut to do	Choosing ways	Choosing ways to do things	
Being willing to 'have a go'	Showing satisfaction in meeting their	Showing satisfaction in meeting their own goals		Planning, making decision about how to approach a task, solve a problem and	
Initiating activities	Being proud of how they accomplished	ed something — not just the end	reach a goal		
Seeking challenge	result		Checking how well their activity is going		
Showing a 'can do' attitude	Enjoying meeting challenges	Enjoying meeting challenges		Changing strategy as needed	
Taking a risk, engaging		Reviewing how well the approach worked.		well the approach worked.	
Development Matters st	atements:	Nursery		Reception	
Nursery		To know and discuss photograp	hs and memories.	To know how to take information from a simple map.	
Understanding the world					
Spend time with children talking about photos and memories.	Encourage children to retell what their parents	To know how to explore simple IT equipment.		To know how to use a simple programmable toy and talk about	
told them about their life-story and family.				what they have done.	
Provide equipment to support these investigations. Suggestions: magnifying glasses or a tablet with a		To know how some IT equipment works and use			
magnifying app.		for a basic purpose.		To know how to use IT for a purpose.	
Explore how things work. Provide mechanical equipment for c	hildren to play with and investigate.				
Encourage children to refer to books, wall displays and online resources. This will support their investigations				To know how to use simple IT to explore the world around	
and extend their knowledge and ways of thinking.				them.	
Reception:					
Understanding the world					
Draw information from a simple map - Look at aerial views of	f the school setting, encouraging children to				
comment on what they notice, recognising buildings, open spa	ace, roads and other simple features.				
Nursery:	· · ·	To know how to respond to	what they have	To know how to use a simple device to create their own music.	
Expressive art and design		heard, expressing their thoughts and feelings.		·	
Listen with increased attention to sounds. Respond to what they have heard, expressing their thoughts and		(audio technolog	• •		
Listert with thereased attention to southes. Respond to what they have heard, expressing their thoughts and		,	) J <sup>.</sup>		

feelings - Play, share and perform a wide variety of music and songs from different cultures and historical

periods.

Reception:

Expressive art and design

Encourage children to create their own music.

Explore and engage in music making and dance, performing solo or in groups.

Possible activities	Exploring wind-up toys, pulleys, sets of cogs with	Look at aerial views of the school setting, encouraging children
	pegs and boards.	to comment on what they notice, recognising buildings, open
	Use of the interactive screen for drawing.	space, roads and other simple features
	Old laptops and keyboards in role play areas.	Uses ICT in play for correct purpose, uses to enhance play
	Uses toys or random objects to act as tech e.g.	Uses <mark>photographs</mark> / <mark>tech</mark> for a specific <mark>purpose</mark> with adult
	banana as a phone	support e.g. child describes their tapestry selects a film or photo
	Talk about <mark>technology</mark> or about an <mark>image</mark> e.g. I	take own pictures or films
	played on my ipad, my mummy takes photos on	Child <mark>investigates</mark> the use of <mark>tech,</mark> has awareness of what for
	her phone	and method e.g. photocopier, kitchen appliances, ipads
	Accesses IT in play linked to their immediate	Awareness of a range of <mark>tech</mark> — what to use when and how to
	world e.g. uses IWB / phone / microwave in play	use it
	Play, share and perform a wide variety of music	
	and songs from different cultures and historical	
	periods.	
E-Safety	To know what to do if something makes me feel	To know what to do if something makes me feel worried or
	worried or upset.	upset.
	I know who my trusted adults are.	I know who my trusted adults are.
Possible activities and resources	ICT Games	http://www.childnet.com/resources/smartie-the-penguin
	Cbeebies games	Use the time to chat resource alongside the PPT — use the slide
	Fun with Spot	22 - 32 only for discussion (GDrive)
	Use of Twitter with the class	http://www.childnet.com/resources/smartie-the-penguin
	http://www.childnet.com/resources/smartie-the-	Use the time to chat resource alongside the video — recap over
	penguin	the entire PPT (GDrive)
	Use the time to chat resource alongside the PPT –	
	slide 1 -15 (GDrive)	please use this website for the educational packs
	https://www.saferinternet.org.uk/safer-internet-	
	day/2017	

## KS1 Computing progression 2022-2023

National Curriculum References:	Strand	Year One	Year Two		
Understand what algorithms are; how they are implemented as	Computing	Programming Unit A & B to be taught	Programming Unit A & B to be taught		
programs on digital devices; and that programs execute by	Science	To know how to explain what a given command will do.	To know how to describe a series of instruction in a sequence.		
following precise and unambiguous instructions (CS)		To know how to act out a given instruction.	To know how to explain what happens when we change the order of		
Create and debug simple programs (CS)		To know how to combine commands to make a sequence.	instructions.		
Use logical reasoning to predict the behaviour of simple programs		To know how to find all the solutions to a problem.	To know how to use logical reasonings to predict the outcome of a		
(CS)		J	program.		
			To know how to design an algorithm.		
			To know how to create and debug a program that they have written.		
Possible activities	Making a sandwich algorithm (link to English instructional writing?) Debugging during the activity. Sandwich bot Youtube				
	List of instructions to re order.				
	Light bot (iPad APP or online)				
	Beebot/Daisy the dino				
	All APPs can support children's learning about algorithms if you have the discussion with the children about how they work. Looking at the functions				
	and cause and effect of tools				
Cross curricular application		tion texts on instructions			
	PE — giving clear instructions to a team mate				
	Instructions in				
Use technology purposefully to create, organise, store, manipulate and	Information	Technology around us	Technology around us		
retrieve digital content (DL) (IT)	Technology	To know how to identify technology around us.	To know the uses and features of IT.		
Recognise common uses of information technology beyond school		To know how to use a keyboard to type and edit on a device.	To know and identify the uses of technology in school.		
(DL) (IT)		3	To know and identify IT beyond school.		
			To know and explain how IT helps us.		
			To know that choices are made when uses IT.		
Possible activities	Saving a game on Sketch Nation and accessing it the following lesson. Editing and resaving				
	Sketch Nation – StFaiths, 123				
	Teacher saves a preloaded file which the children must retrieve and then edit. They will resave using a new file name.				
	ONE DRIVE – we have a child's one drive set up GDRIVE				
Cross curricular application	Cross curricula	r — painting, photos etc. saving to the One drive and then retrieving	the following the day.		
Use technology purposefully to create, organise, store, manipulate and	Digital	Programming and technology around us units to be taught	Programming and technology around us units to be taught		
retrieve digital content (DL) (IT)	Literacy	To know how to choose a command for a given purpose.	To know and explain that a sequence of commands has a start and an		
Recognise common uses of information technology beyond school		To know that a series of commands can be joined together.	outcome.		
(DL) (IT)		To know the effect of changing a value (Scratch Jr.)	To know how to create a program using a given design.		
		To know and explain that each sprite has its own instructions.	To know how to change a given design.		
Use technology safely and respectfully, keeping personal information		To know how to use their algorithm to create a program.	To know how to create a program using my own design.		
private; identify where to go for help and support when they have			To know how my project can be improved.		
concerns about content or contact on the internet or other online					
technologies.(DL)					
Possible activities	History – how has technology changed over the years?				
	Using your phone to check emails.				
	,	e search engine to find the answer to a question.			
	Weekly updates of Twitter with the children.				
		s of the class webpage.			
	,	Weekly updates of Twitter with the children.			

	Termly update	s of the class webpage.			
	Having the class computer set up on twitter or class page for children to instantly share information.  Look at the 'please share this and show my class how far it gets' teachers do this all the time and shows the children how quickly something can spread and how far it can go.  NATTERHUB  Links with E-Safety, PSHE & RSE				
Cross curricular application					
Use technology safely and respectfully, keeping personal information	E-Safety	Feel it lesson 2	Balance it lesson 2		
private; identify where to go for help and support when they have		To know how being unkind to someone can make them feel.	To know and understand when it is and not appropriate to use a device.		
concerns about content or contact on the internet or other online	PSHE link	Question it lesson 2	Chat it lesson 3		
technologies. (DL)	NATTERHUB	To know ways of searching for information online.  Think it lesson 2	To know different types of communication technologies and their features  Think it lesson 2		
		To know when something is wrong and what to do.  Think it lesson 3	To know why it is important to seek help from trusted adults  Think it lesson 3		
		To know that each of us has the right to say no, especially when	To know how a trusted adult can help.		
		we feel upset or uncomfortable	Mind it lesson 2		
		Mind it lesson 3	To know who to talk to if someone has made a mistake online.		
		To know what information should not be shared online	Question it lesson 3		
		Secure it lesson 2	To know that some information we find online may not be true.		
		To know of information that should or shouldn't be shared online.	Secure it lesson 2		
			To know and describe some rules for keeping information private.		
Possible activities		School email and twitter account	Websites to aid research, e.g.; Barnaby website to find out about his trip		
		https://www.saferinternet.org.uk/safer-internet-day/2017	and how he travels.		
		CEOP Thinkuknow resources, based on Hector's World	https://www.saferinternet.org.uk/safer-internet-day/2017		
		www.thinkuknow.co.uk/5_7/	Digiduck's Big Decision e-book from Kidsmart		
		Lee and Kim's Adventure – for uses of the Internet	Discussion forums or messaging system on school learning platform.		
		Smartie The Penguin story from KidSMART Early Surfers (G drive)	School twitter account		
		Twinkl quiz (G Drive)	https://www.youtube.com/watch?v=gPse7dcXwrU		
		http://www.childnet.com/resources	CEOP Thinkuknow resources, based on Hector's World.		
		this website is excellent for resources if an extra session is required	www.thinkuknow.co.uk/5_7/		
		due to an incident of cyberbullying, sexting etc.	http://www.childnet.com/resources		
			this website is excellent for resources if an extra session is required due to an incident of cyberbullying, sexting etc.		