Curriculum Coherence – Year 1 Computing

Term 1	Online Safety and Trusted Adults www.childnet.com Digiduck stories
	Programming Using Basic Algorithms

Values: Respect, understanding, kindness, responsibility

Prior Learning: ELG Understanding the World – Chn know how to operate simple equipment. They show an interest in technological toys with knobs or pulleys, or real objects. Chn show skills in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images. They know that information can be retrieved from computers. Chn can complete a simple program on a computer and interact with age-appropriate computer software.

INTENT	IMPLEMENTATION	IMPACT
KNOWLEDGE	**ACTIVITIES**	**OUTCOMES**
Online safety and trusted adults	**Online safety and trusted adults unit 1.1**	**Online Safety and Trusted Adults**
-Know their trusted adults and when ask for help and guidance.	- Discuss trusted adults and how they can help	**PUPILS will know**
- Passwords are kept private.	-Log in to Purple Mash with their username and password and log out again	- who are their trusted adults?
	- Discuss what a password is and how we keep them safe	- what is a digital avatar?
Programming using basic algorithms	- Talk about what an avatar is and create their own	- what is a password and why should we keep them safe?
- what coding means		- what does coding mean?
- to use clear instructions in the correct order		- what is personal information and why/how is it kept safe?
- to clear the memory before inputting new instructions		
	Programming using basic algorithms	**will be able to**
	- tinkering with BeeBots	- Turn on/off a computer
	- to input instructions into BeeBots	- Log on/off using their own username/password
CORE VOCABULARY	- to make their own map for the BeeBot to travel around	
Log in/out, username, password, browser, avatar, pop ups, strangers, safe, meet, reliable, report	- to both follow and write simple algorithms themselves and for BeeBots to reach a predetermined destination	**will understand**
	- to discuss what went wrong with their algorithm (debugging)	I can keep my password private.
Coding, program, directions – left/right turn, forward, backwards, start, clear, algorithm, input, debugging		I can tell an adult when I see something unexpected or worrying online.
		I can talk about why it's important to be kind and polite.
		I can recognise an age appropriate website.
HIGH LEVEL VOCABULARLY		I can agree and follow sensible e-Safety rules.
Personal information, trustworthy, concerns, NSPCC, abuse, unreliable		
		Programming using basic algorithms
	Key Questions	**PUPILS will know**
Computational, problem solving, programmer, tinkering, collaborating, decomposition		-what is an algorithm?
		-how can we program a BeeBot?
	How can we stay safe online?	-what is debugging?
	Who can we talk to if we have a problem?	**Will be able to**
		-tinker with a floor robot
		-enter instructions into a Beebot
	Who are my trusted adults?	-sequence instructions to reach a target destination
		-look for errors in their instructions and think about how to correct these
	Why do we need to code? What does coding tell a computer?	
		will understand
	How can I fix my algorithm?	I can give instructions to my friend and follow their instructions to move around.
		I can describe what happens when I press buttons on a robot.
	What makes a good algorithm?	I can press the buttons in the correct order to make my robot do what I want.
		I can describe what actions I will need to do to make something happen and begin to use the word algorithm.
		I can begin to predict what will happen for a short sequence of

READING OPPORTUNITIES Detective Digiduck Digiduck's Big Decision Digiduck's Famous Friend Smartie The Penguin: The first version of story covers the following 3 themes; 1.Pop ups and in app purchasing 2. Inappropriate websites for older children 3. Cyberbullying The second version of the story covers the following 3 themes; 1. Upsetting images 2. Unreliable information **3. Talking to strangers online**	**CHALLENGE:** Online Safety rules poster. That they use to inform Early Years children. Think of own passwords using criteria. Coding- draw their own map using directional language and write the instructions down. **SUPPORT:** Re-enact a digiduck story and sequence the story using story cards. Chn explain what they learnt from the story. Provide password scaffolds. Coding – provide map with instructions as a scaffold for the children to follow.	instructions. **NC OBJECTIVES:** Key stage 1 Pupils should be taught to: ♣ 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 ♣ 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
SKILLS • Double clicking • Mouse skills • Turning on and off a computer safely • Logging on and off • Clearing memory • Inputting instructions into a BeeBot • Creating a safe password	**ASSESSMENT OPPORTUNITIES:** Can the chn create a safe passwords? Can the chn tell you how they keep safe online? Do you know what to do if a stranger asked them for personal information? Can chn explain why they need to write code/algorithms? Can they problem solve by debugging when algorithms develop errors? Can they program a beebot giving instructions to get from A to B? Can they write their own instructions for a partner to follow?	**NEXT STEPS IN LEARNING** Safer Searching and digital footprint (Year 2, Autumn 1) Creating onscreen algorithms (Year 1, Summer 2) Extending algorithms (Year 2, Autumn 1)
PREPARATION FOR ADULTHOOD: Chn will know how to keep themselves safe online Chn will know how to create safe passwords Chn will know how to keep personal information private Chn will know how to report concerns about online content Chn will follow systematical steps in using online technologies and develop problem solving skills to solve problems and develop critical thinking		**LINKS TO Curriculum Areas** Life Learning - <u>Year 1</u>: Summer 1 – Who helps to keep us safe? (Health and Well being – staying safe online) Life Learning – Ant-bullying week November 2021. Online bullying Maths – directional and positional language English – instruction writing for a purpose systematically THREAD – transport – directional language

SMSC
Spiritual –By understanding the advantages and limitations of ICT. The power of technology in making the world a smaller place.
Moral –By considering the benefits and potential dangers of the online world e.g. campaigns for charities and injustice as a force for good. Cyberbullying as a danger.
Social – Promoting the ways to stay safe when using online services and social media. Discussing the impact of ICT on the ways people communicate.
Cultural - Promoting an understanding of the history and wonder of technology. Communicating with different regions, countries and cultures.