Curriculum Coherence – Year 3 Computing

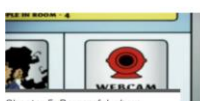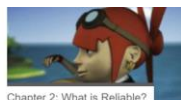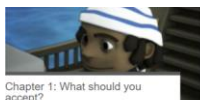| Term 1	Online Safety: communication and content and www.childnet.com SMART rules and stories Programming: selection and variables

Values: Respect, understanding, kindness, responsibility

Prior Learning: Y2 Know their trusted adults and know when to ask for help and guidance. Passwords are kept private. Will understand how things can be shared electronically for others to see. They will know that email is a form of digital communication. What coding means and create projects and edit and evaluate them to debug and correct errors. - Talk through code use different code blocks and commands such as 'repeat' and 'timers'. Will use evaluate the effectiveness of my own and others' animations and will know how to add further advancements and detail to their projects.

INTENT	IMPLEMENTATION	IMPACT
KNOWLEDGE **Online Safety** *-What makes a safe password and how to keep it safe* *-How the internet can be used in effective communication* *-How a blog can be used to communicate with a wider audience* *-To consider the truth of the content of websites* *-The meaning of age restrictions on digital media* **Programming** *- To understand and use variables in 2Code.* *-To understand the use of the 'if' command for selection in coding* *-To deepen understanding of the different between timers and repeat commands*	**ACTIVITIES** **Online Safety: communication and content unit 3.2** • Create a class concept map about how the internet can be used at home and school • Discuss the importance of password safety and security • Introduce blogs. Create a class blog about advantages and disadvantages of the internet. • Discuss spoof websites and make their own • Discuss PEGI ratings and what to do if they come across inappropriate content	**OUTCOMES** **Online Safety** **PUPILS will know** -what is a safe password and why do we need to keep them safe? -is everything I read on the internet true? -how do I know if I am old enough to play a computer game? **will be able to** -contribute to a concept map/class blog clearly and appropriately -think critically about the results returned from an internet search -create their own spoof web page and share it on an online display board -identify some physical and emotional effects of playing/watching inappropriate content -relate cyberbullying to real-world bullying and have strategies for dealing with online bullying
CORE VOCABULARY **Online Safety** Password, internet, blog, concept map, username, password **Programming** Action, algorithm, bug, code block, design, command, control, debug, event, if, input, output, object **HIGH LEVEL VOCABULARLY** website, webpage, spoof website, PEGI rating properties, repeat, selection, timer, variable	**Programming: selection and variables unit 3.1** • Robot and coder activities: draw a smiley face, moving around the room (unplugged) • Free Code Gibbon: demonstrate then children to tinker for themselves. Design Mode. Add objects: change properties for name and image; change background. Code View: drag in object blocks, give them actions, choose an event. Predict what will happen (output). Save. • Recap vocabulary. • Using timers. Tick Tock Challenge (demo).	**will understand** -I can talk about what makes a secure password and why they are important. -I can protect my personal information when I do different things online. **Programming** **PUPILS will know** -What is selection and how can we use an 'if command? -What is the difference between timers and repeats and when might each be appropriate? -What are variables? **Will be able to** -tinker with free code -complete coding activities to achieve a result or debug an existing program -use timers, selection and variables in their code
SKILLS • Creating a safe password • Not to share personal information • How to report concerns Evaluate content and own work • Collaborating appropriately online • To use selection in coding with the 'if' command. • To use variables • To begin to use and differentiate between timers and repeat commands	Then chn working on: Magician, Superheroes or Sparklers. • Repetition: introduce vocab sequence, repeat, input, output. Demo Repeat with Timer, chn then experiment with timers. Show a Repeat Command example (e.g. with turtle), discuss the difference. • Selection: compose some if statements together (unplugged). Demo Step 1-3 of Guard the Castle. In free code Gibbon, add a prompt block, 'if' and print to screen. Chn plan their own if or if/else blocks, to be visual or text based. Following session to create their code.	**will understand** -I can break an open-ended problem up into smaller parts. -I can put programming commands into a sequence to achieve a specific outcome. -I keep testing my program and can recognise when I need to debug it. -I can use repeat commands. -I can describe the algorithm I will need for a simple task. -I can detect a problem in an algorithm which could result in unsuccessful programming.
	• Variables: in free code Gibbon create	**NEXT STEPS IN LEARNING** Safer Internet Day (Year 3, Spring 1) Online Safety (Year 4, Autumn 1) Programming: Scratch (Year 3, Summer 2)

Chapter 1: What should you accept?

Chapter 2: What is Reliable?

Chapter 3: What should you keep safe?

Chapter 4: Who should you tell?

Chapter 5: Be careful when meeting up

Watch Full Movie

a number counter. Chn to do Switching background or Genie lesson. Ext: make own timers and variables in free code.

Key Questions

How can we stay safe online?

Who can we talk to if we have a problem?

Who are my trusted adults?

What makes a safe password?

What are advantages and disadvantages of sharing information on the internet?

What is an algorithm?

What is selection and how can we use an 'if command?
-What is the difference between timers and repeats and when might each be appropriate?
-What are variables?

NC OBJECTIVES:

Pupils should be taught to:
♣ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
♣ use sequence, selection, and repetition in programs; work with variables and various forms of input and output
♣ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
♣ understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
♣ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
♣ select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
♣ use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

ASSESSMENT OPPORTUNITIES:
Can the chn create a safe password?
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 they explain that an algorithm is a set of instructions?
Can they explain what selection is and how can we use an 'if command?

Can they explain what is the difference between timers and repeats and when might each be appropriate?

Can they explain what variables are and how to use them?

Can they debug simple programs?

CHALLENGE:
Creat a Online Safety rules poster identifying the rules after listening to each story. That they use to inform Year 2 children. Think of own passwords using criteria.
Coding- Children can explain and give Children's designs show that they are thinking of the required task and how to accomplish this in code. Children can identify an error within a program that prevents it following the desired algorithm and then fix it. Children make intuitive attempts to debug their own programs as they increase in complexity.
SUPPORT:
With support identify the rules learnt from the story. Provide password scaffolds.
Coding – With support, children can design and code a program that follows a simple sequence. They can make good attempts to 'read' code and predict what will happen in a program which can help them to correct errors.

LINKS TO Curriculum Areas

Year 3: Autumn 2 – What keeps us safe? Health and Well being
How to recognise and respond to pressure to do something that makes them feel unsafe or uncomfortable (including online)
Summer 2 – Why should we keep active and sleep well? Health and well being
How to be active on a daily and weekly basis - how to balance time online with other activities
Life Learning – Ant-bullying week November 2021. Online bullying
Maths – programming (direction)
English – writing instructions

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 know how a blog can be used to communicate with a wider audience
Chn will know how to consider the truth of the content of websites
Chn will know how the meaning of age restrictions on digital media
Chn will follow systematical steps in using online technologies and develop problem solving skills to solve problems and develop critical thinking

SMSC

Spiritual –By understanding the advantages and limitations of ICT. The power of technology in making the world a smaller place. Knowing what decisions to make to keep yourself safe online and how to make yourself safe online.

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. Limiting your time online for your well-being. What information should or should not be shared.

Social – Promoting the ways to stay safe when using online services and social media. Discussing the impact of ICT on the ways people communicate. Playing with others online to develop your social skills and using a blog to socialise.

Cultural - Promoting an understanding of the history and wonder of technology. Communicating with different regions, countries and cultures.