Computing Long Term Plan - Year 3/4

1.Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

2.Use sequence, selection, and repetition in programs; work with variables and various forms of input and output

3. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

4. 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

5. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

6. 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

7. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing Intent

Pupils will become confident and responsible digital citizens. They will develop computational thinking and key skills to promote resilience when creating digital content. Pupils will develop strategies to build healthy online relationships and engage positively with online technologies.

Term	Online Safety Focus Access https://projectevolve.co.uk/ Clare Head is admin.	Barefoot Computing Unit	Additional teaching (alternatives to Barefoot/Basic skills to be covered during topic lessons)
Cycle A (Y1,3,5)			
Autumn Term Objective 5 Objective 6 Objective 7	Remind children of the Acceptable User Policy. Watch videos to remind children if needed from The SMART CREW. Explain about searching on the internet safely. Google Safe Search **Privacy & Security (Y3)**  **Online Bullying (Y3)** 	<u>Year 3 -Evaluating Digital Content:</u> *Barefoot: Selecting search activity*	Explain what 'my drive is and what it does' Set up files in my drive. Talk about the importance of finding files and how to file them correctly. Typing practice *(Purple Mash)* *Google Docs/Slides* - use app to present final draft or topic work
Spring Term Objective 1 Objective 2 Objective 3 Objective 6 Objective 7	**Online Relationships (Y3)** 	<u>Year 3 - Scratch, Algorithms & Debugging:</u> *Barefoot: 2D shape drawing debugging* *Barefoot: Decomposition unplugged activity* *Barefoot: Animated poem*	An introduction to welearn365 and emailing 

		decomposition	**Additional Coding** 1. Retrieval on previous Coding 2. How much vocabulary can they remember? 3. Model Wedo- explain we can create an algorithm and the Lego model will perform the algorithm. 4. Model adding sound 5. Model loops and repetition 6. Lego Wedo Typing practice *(Purple Mash)* *Google Slides/Docs* - use apps to present final draft or topic work
Summer Term Objective 1 Objective 2 Objective 3 Objective 6 Objective 7	**Online Reputation (Y3)** 	Year 3 - Scratch, Algorithms & Debugging: *Barefoot: Scratch tinkering activity* *Barefoot: Fossil formation animation* *Barefoot: Shapes and crystal flowers repetition*	**Coding - Choose from Barefoot Coding or 2Code and Hour of Code** ● Introduce the first few coding examples and vocabulary. ● Embed coding language ● Work through 'Chimp' Coding on PurpleMash 

			• Complete Hour of Code Minecraft and Dance Mat Coding Typing practice *(Purple Mash)* *Google Slides/Docs* - use apps to present final draft or topic work
Cycle B (Year 2, 4, 6)			
Autumn Term Objective 5 Objective 6 Objective 7	**Copyright & Ownership (Y4)** 	<u>Year 4 - Digital Content:</u> *Barefoot: Network hunt activity*	Typing practice *(Purple Mash)* *Google Docs/Slides* - use app to present final draft or topic work
Spring Term Objective 1 Objective 2 Objective 3 Objective 6 Objective 7	**Self-Image & Identity (Y4)**  **Health & Wellbeing (Y4)** 	<u>Year 4 - Scratch, Algorithms & Debugging:</u> *Barefoot: Abstraction unplugged activity* *Barefoot: Logical reasoning unplugged activity* *Barefoot: Viking raid animation* *Barefoot: Bug in the water cycle*	An introduction to welearn365 and emailing  Typing practice *(Purple Mash)* *Google Docs/Slides* - use app to present final draft or topic work
Summer Term Objective 1 Objective 2 Objective 3	**Managing Online Information (Year 4)** 	**<u>Year 4 -</u>** <u>Programming:</u> *Barefoot: Kodu tinkering activity*	Typing practice *(Purple Mash)* *Google Docs/Slides* - use app to present final draft or topic work

Objective 6 Objective 7			

Programming	Data Handling and Multimedia	Digital Literacy and Online Technologies	Online Safety	Basic ICT skills
Key Stage One				
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	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	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	
Key Stage Two				

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	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	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 [search] results are selected and ranked and be discerning in evaluating digital content .	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	