Spring 1 Computing Expectations
Year 2

Information Technology/Digital Literacy	Computer Science
(needs to be constantly "dripped" into the curriculum, initially taught in A1)	• understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
• use technology purposefully to create, organise, store, manipulate and retrieve digital content	• create and debug simple programs
• use technology safely and respectfully, keeping personal information private	• use logical reasoning to predict the behaviour of simple programs
• identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	

Information technology/Digital Literacy		Computer Science	
Intent	**Implementation**	**Intent**	**Implementation**
To consolidate and application of objectives already introduced in A1 and re-teach skills in cross curricular and purposeful ways.	Ensure Purple Mash "2dos" are established to support other areas of the curriculum in purposeful ways Ensure that QR codes are readily available linked to Foundation subjects being taught this term, as well as making sure QR codes are available to consolidate prior learning. Ensure that any objectives identified in A2 planning and assessment Staff meeting that were not covered are addressed this half term	• use and understand the term "algorithm" • create simple programs and find the "bugs" in them • predict the outcomes of their algorithms and programs • to give commands that include directional and positional language (distance and turn) • program, execute and debug a device • create a set of instructions to complete a simple task (e.g drawing a triangle) • discuss and improve their commands • to begin to answer "what if?" questions (e.g. what if I change the distance to …?) • predict and test their idea compare similarities between on screen and floor devices	iPads to create an algorithm – use the camera function and 10 lego bricks activity – see "Barefoot Computing" for more ideas Small world stop motion – using iPads and https://www.youtube.com/watch?v=M53QPyVyRTg (teacher support only video) Use bee bots to create simple algorithms and then debug any problems - encourage children to give a set of instructions to a friend to "debug" Use pre made directional cards – can the chidren predict "where" bee bot will end up Using pre made bee bot mats to encourage programming and predictive language 2code – Use the "Chimp" resources (covers programming and debugging concepts) to look at basics of coding

Activity	Coding Knowledge Introduced (all activities also revise previous knowledge)
Fun with Fish	Character objects
	Moving left and right
Bubbles	Click actions
	Moving up and down
Air Traffic Control	Vehicle objects*
Snail Race	Background actions
	Use numbers for speed
	Random numbers
Vehicles	Vehicle objects*
Turtle	Turtle object; moving and turning
	Collision detection
	Swipe action
Haunted Scene	Combining several objects and actions in a program
	Change image
Guard the Castle	Collision detection
Princess and the Frog	Timer for delay
	Stopping objects
Sounds	Sound function
	Play sounds using click and swipe.

PM unit 1.4, 1.5, 1.7 lego mazes , lego builders/maze explorer/coding

https://www.bbc.co.uk/bitesize/subjects/zyhbwmn
BBC Bitesize –Explaining Computer Science - What is an algorithm?

2.1 2 code

Barefoot Computing -
https://www.barefootcomputing.org/primary-computing-resources

Terminology to be used: laptop, iPad, desktop, keyboard, screen, touch screen, mouse/mouse pad, click, drag, apps, program, double click, select, open, log on, log off, names of apps/programs to be used, password, user name, consent	Terminology to be used: television, remote control, cash machine, app/program names technology, computer, iPad, photocopier, smartboard,	Terminology to be used: algorithm, sequence, input, output

Additional Support

Purple Mash Knowledge Organisers (Unit 1.4, 1.5, & 1.7) "PM - Teacher – Computing Scheme of Work – Year 1 – Unit number – Knowledge Organiser. (although aimed at Year 1, there are helpful ideas that can be extended and adapted)

CEOP /Think U Know websites

E-Safety

INTENT	IMPLEMENTATION

Recognise that there may be people online that may make us feel sad, embarrassed or upset	Link to PSHE curriculum, when discussing dreams and passions etc, make reference to how these feelings might appear when using iPads/laptops etc
Give examples of when and how to speak to an adult if they feel unsafe	PSHE focus – "The internet in everyday life" -
Explain why it is important to be nice online	Revisit and reafirm e-safety rules together as a class in the same way class rules are established, ensuring children ask for permissions before using equipment, taking photographs of friends (CONSENT) etc
Ask an adult for permission before uploading online	Ownership of work online – continue to **save and retrieve by naming – be more specific in titles of pieces**
Identify rules that keep us safe when online	**SWIGGLE** – age appropriate website to be used for research online by children
Begin to understand "ownership" and some personal data online	**Re read the story of "Smartie the Penguin" to re focus the children – Year 2 focus story – use a safe search engine, private and shared information**
Explain what a password is and why it keeps us safe	
Say why something online belongs to them (eg it is my idea, my picture)	**Think u know – home learning packs – games and ideas to support "e-safety" teaching and learning** https://www.thinkuknow.co.uk/parents/home-activity-worksheets/5-7s/
Save their work so others know it belongs to them	https://www.thinkuknow.co.uk/parents/jessie-and-friends/
Introduce the idea of consent when taking photographs of our friends	
Use age appropriate websites	
Agree and follow e-safety rules together	