LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Level 1 - (Year 3 and 4) Ages 7-9	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12
Science - Year 3												
Plants							✓					
Animals, including humans			✓									
Rocks								✓				
Light	✓			✓							✓	
Forces and Magnets						✓		✓				
Science - Year 4												
Living things and their habitats			✓			✓		✓				
Sound		✓										
Electricity				✓		✓		✓				
Computing - KS2												
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									✓			
Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

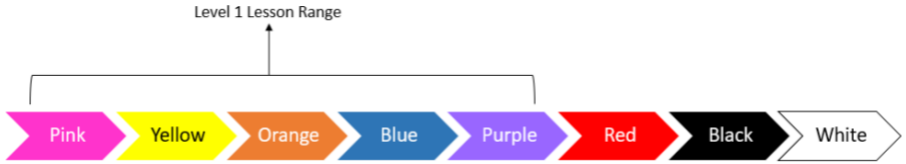
LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Design and Technology - KS2												
Design			✓	✓		✓	✓	✓	✓		✓	
Make			✓			✓	✓				✓	
Evaluate				✓		✓		✓	✓	✓	✓	✓
Technical Knowledge	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Music - KS2												
Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression		✓										
Improvise and compose music for a range of purposes using the interrelated dimensions of music		✓								✓		
English - KS2												
Reading - Word Reading	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reading - Comprehension	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Writing - Composition	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Writing - Vocabulary, Grammar and Punctuation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geography - KS2												
Physical Geography						✓		✓				
Mathematics - Year 3												
Number and Place Value				✓	✓					✓	✓	✓
Measurement		✓			✓							
Geometry - Properties of Shapes	✓					✓						
Statistics									✓			
Mathematics - Year 4												

LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Number and Place Value												✓
Addition and Subtraction					✓							
Geometry - properties of shapes						✓						

Computing At Schools (CAS) Progression Grid Standards covered throughout the Level 1 lessons on SAM Space



Level 1 - Ages 7-9	1.1 Light and Shadows	1.2 Compose a Song	1.3 Design a Habitat	1.4 Smart Lighting Systems	1.5 Time's Up	1.6 Build it up, break it down	1.7 Seed Dispersal	1.8 Earthquake Alert	1.9 Reduce, Reuse, recycle	1.10 Interactive Storybook	1.11 SAM Safe	1.12 Round and Round
Software Used	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*	*SAM Space*
ALGORITHMS												
Pink Level												
Understands what an algorithm is and is able to express simple linear (non-branching) algorithms symbolically.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Understands that computers need precise instructions.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Demonstrates care and precision to avoid errors.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Yellow Level												

LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Understands that algorithms are implemented on digital devices as programs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Designs simple algorithms using loops, and selection i.e. if statements.			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Uses logical reasoning to predict outcomes.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Detects and corrects errors i.e. debugging, in algorithms	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orange Level												
Designs solutions (algorithms) that use repetition and two-way selection i.e. if, then and else.				✓	✓	✓	✓	✓	✓	✓	✓	✓
Uses diagrams to express solutions.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Uses logical reasoning to predict outputs, showing an awareness of inputs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blue Level												
Shows an awareness of tasks best completed by humans or computers.				✓		✓	✓	✓	✓	✓	✓	✓
Designs solutions by decomposing a problem and creates a sub-solution for each of these parts.			✓				✓	✓	✓	✓	✓	✓
Recognises that different				✓						✓	✓	✓

LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

solutions exist for the same problem.												
Purple Level												
Understands that iteration is the repetition of a process such as a loop.								✓	✓	✓	✓	✓
Recognises that different algorithms exist for the same problem.										✓	✓	✓
Represents solutions using a structured notation.											✓	
Can identify similarities and differences in situations and can use these to solve problems (pattern recognition).										✓	✓	✓
Programming and Development												
Pink Level												
Knows that users can develop their own programs, and can demonstrate this by creating a simple program in an environment that does not rely on text e.g. programmable robots etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Executes, checks and changes programs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Understands that programs execute by following precise instructions.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Yellow Level												
Uses arithmetic operators, if statements, and loops, within programs.			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Uses logical reasoning to predict the behaviour of programs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Detects and corrects simple semantic errors i.e. debugging, in programs.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orange Level												
Creates programs that implement algorithms to achieve given goals.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Declares and assigns variables.					✓	✓	✓	✓	✓	✓	✓	✓
Uses post-tested loop e.g. 'until', and a sequence of selection statements in programs, including an if, then and else statement.			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blue Level												
Understands the difference between, and appropriately uses if and if, then and else statements.						✓	✓	✓	✓	✓	✓	✓
Uses a variable and relational operators within a loop to govern termination.					✓				✓	✓	✓	✓
Knows that a procedure can be used to hide the detail with sub-solution.											✓	✓

LEVEL 1 - U.K. CURRICULUM ALIGNMENT MAP

Purple Level												
Understands that programming bridges the gap between algorithmic solutions and computers.											✓	✓
Uses a range of operators and expressions e.g. Boolean, and applies them in the context of program control.											✓	✓