To create a design based on the work by artist Ika Sarkasi	**Computing** **Knowledge organiser**	**Learning Lens**: Computer Science—Computer Science (Code it—course F) **Class**: 6

Previous Knowledge

Project Hook or 'Wow' memory

To create a jaw-dropping design -which includes loops and variables - based on an artist called Ika Sarkasi which can be used in their batik design.

Learning Steps	Key Knowledge (answers)
I can write a program that responds to timed events and user input.	Children will work through a series of programming levels on the computer, finishing with an open-ended "free play" task where they can build whatever they like. Children will write programs that respond to timed events and user input. (Session 3)
I can create a virtual pet, behaviours and custom art. I can program solutions to problems.	Chd will identify and write generic code for a small project. Chd will draw and select a new costume for a sprite. Chd they will create events that cause actions and behaviours upon interaction. (Session 4)
I can Identify the benefits of using a loop structure instead of manual repetition. I can create procedures to hide complexity in programs.	Children will change the focus from Sprite Lab to the Artist, a new tool which children will explore using a loop structure. Chd will identify the benefits of using a loop structure instead of manual repetition. (Session 9)
I can Identify the benefits of using a loop structure instead of manual repetition.	Children will understand how to figure out how minor changes in loops will affect their program. Recognize large repeated patterns as made from smaller repeated patterns. (Session 11
I can focus on 'for' loops and using an incrementing variable to solve more complicated puzzles. I can critically evaluate my programming.	Programming with the Bee. To be able to determine starting value, stopping value, and stepping value for a for loop. Chd will recognize when to use a 'for' loop and when to use other loops such as repeat and while loops. (Session 14)
I can use 'for' loops with artist to design an image to be used for a batik design on a t-shirt.	Children will practice "four" loops with Artist. Students will complete puzzles to create complex designs and unique art to use with their batik design. Children will recognise when to use 'for loops' several times with different values. (Session 15)

The key skills we want pupils to use during this topic:

Use variables in conjunction with prompts and use 'for' loops for beginning, end and increments.

Create new sprites and assign them costumes and behaviours.

To create procedures to hide complexity in programs and write genetic codes across

Key vocabulary

For Loop -	Loops that have a predetermined beginning, end, and increment (step interval).
Bug -	Part of a program that does not work correctly.
Debugging -	Finding and fixing problems in an algorithm or program.
Sequencing -	Putting commands in correct order so computers can read the commands.
Prompt -	A message on the computer screen that waits for input
Event -	An action that causes something to happen.
Variable -	A label for a piece of information used in a program.

Statutory Requirements

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

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

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