

Key Facts & Vocabulary

Year 6 Computer Science

Scratch – Patterns

Commands in Scratch tell the computer what to do, and we create a program by joining commands together. It is very important that the events happen in the correct sequence.

sprite an object that is controlled by blocks and scripts e.g. a Tile.

stage the area where the sprites live.

block a command which tells the sprite what to do. It can be run by clicking on it.

stamp is a block which tells the sprite to print its image on the stage.

hat block is always placed at the top of a script.

script a sequence of blocks snapped together – a program. It can be run by clicking on any part of the script. **scripts area** the area where the blocks and scripts are built, kept and run.

debugging the process of fixing or improving a program (i.e. script).

repetition means running a sequence of commands a certain number of times.

total turn total number of degrees the sprite turns when running a script.

costumes alternative ways that a sprite can look on the stage.

pattern repeating sequence when stamping a sprite's costume or costumes.

definition is the script that is connected to the define hat block of a new block.

This says what a new block will do when clicked.

MODULE 1 • POSTER 2
MAKE YOUR OWN BLOCKS: BUILD + DEFINE + KEEP + USE

MODULE 1: INVESTIGATION 2
Activity 1.2.3 – Alternating Flowers

Use the next costume block in your scripts to create the pattern below.

Now create some of the patterns below or similar patterns.

MODULE 1 • POSTER 1
TWO BASIC ALGORITHMS FOR CREATING CIRCULAR PATTERNS

The Computational Thinkers

concepts	approaches
<ul style="list-style-type: none"> Logic Predicting & analysing Evaluation Making judgements Algorithms Making steps & rules Patterns Spotting & using similarities Decomposition Breaking down into parts Abstraction Removing unnecessary detail 	<ul style="list-style-type: none"> Tinkering Changing things to see what happens Creating Designing & making Debugging Finding & fixing errors Persevering Keeping going Collaborating Working together

Links to prior learning:

- Yr 2 – Scratch Jr, sequencing, Algorithms
- Yr 3 – Scratch 3, game design and fossils
- Yr 4 – Kodable & Scratch, programming, algorithms, animations, games
- Yr 5 – Scratch 3, Space Adventures,