

## **Knowledge Mat - Computer Science – Year 3 - Sequence**

## **National Curriculum Links: KS2 Computing**

- 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

**CS3.1** I know that a **sequence** is a list of instructions in a particular order

CS3.2 I know that if I change the sequence I may change the outcome of the program

CS3.3 I can sequence a simple program on Logo to produce a line drawing of a 2D shape

**CS3.4** I can solve problems by decomposing them into smaller parts.

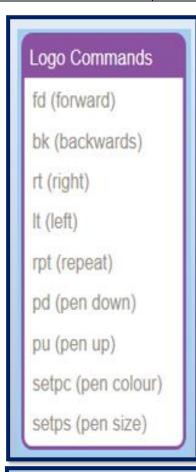
**CS3.5** I can detect and debug errors in my sequence

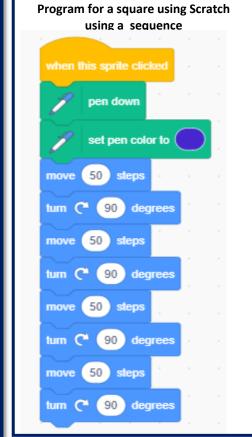
**CS3.6** I can use and edit a pre-written program to achieve a specific outcome

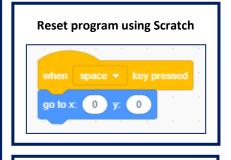
**CS3.7** I can use logical reasoning to explain what will happen next

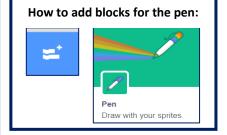
CS3.8 I can predict how a change in a sequence may impact on the outcome of a program

Computer Science Vocabulary	
computer	BBC Bitesize Computing KS2
science	computer scientists design new software,
	solve computing problems and develop
	different ways to use technology
computational	involves looking at a problem and working
thinking	out a way a computer might be able to help
	you solve it
algorithm	a set of instructions in everyday language,
	e.g. 'get ready for school', 'go out to play'
program	a precise set of instructions for a
	computer
sequence	a program with a number of steps in the
•	right order
decompose	breaking a program down into smaller
	steps
debugging/	Identifying and correcting mistakes when
deglitching	the program doesn't work as expected
abstraction	being able to focus on the problem and
	ignoring detail, focus on program before
	look and feel e.g. colour, size, background
Input / output	data or information that a computer
	receives in or displays out
unplugged	computer science without using the
	computer
event blocks	all programs need an event which acts like
	a start button
mathematical	Directional language- backward, left, right,
language	angles, clockwise / Anti-clockwise









## LO extension:

Using the same format for a square

fd \* rt \* fd \* rt \*

Now write a program for:

A HEXAGON – 6 sides angle 60

A OCTAGON – 8 sides angle 45

> eg. fd 5 rt 90... An example of a sequence for a square setpc red fd 5 rt 90 fd 5 rt 90 fd 5 rt 90 fd 5 rt 90 setpc