



Computing Knowledge Organiser		
Year group: 4	Topic link:	Element of Computing: loops and repeating sequences
Key Question: What are loops and sequences with repetition in coding?		



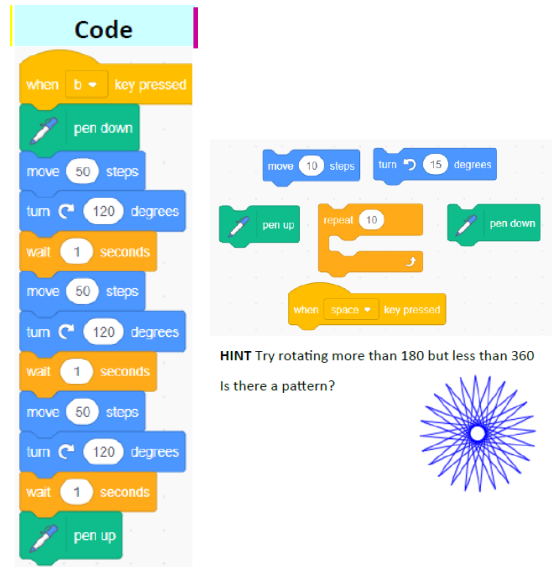
Key Vocabulary	
loops	In computer programming, a loop is a sequence of instructions that is continually repeated until a certain condition is reached.
Sequences with repetition	Repetition in a program means that lines of code will be run multiple times. Iteration is a term similar to repetition. It means to continue repeating an action until you achieve the correct outcome, unless that desired outcome is not possible. Both iteration and repetition are implemented using loops.

Code

```

when b key pressed
  pen down
  move 50 steps
  turn 120 degrees
  wait 1 seconds
  move 50 steps
  turn 120 degrees
  wait 1 seconds
  move 50 steps
  turn 120 degrees
  wait 1 seconds
  pen up
  
```

HINT Try rotating more than 180 but less than 360
Is there a pattern?



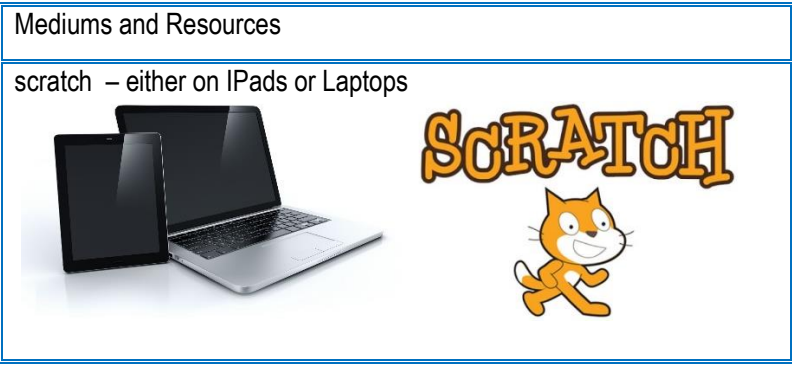
What key knowledge will I have by the end of this journey?

Confident understanding of the function of coding blocks for control, movement, pen and event

Understanding of the function of a loop and how it differs from a sequence

Mediums and Resources

scratch – either on iPads or Laptops



My outcome will be

To code an app for drawing shapes using loops and repeating sequences

What key skills will I have by the end of this journey?

Ability to create a sequence using coding blocks

Ability to use loops to streamline my programming

Ability to draw a range of shapes using an app

Links to previous and future learning			
In Year 3 Apply knowledge of inputs and outputs to a Spike project	In year 4 Use loops and sequences with repetition	In Year 5 Use procedures with conditions and conditional starts	In year 6 Develop an app/ game/ device using knowledge of coding