Programming– Repetition in Games

Construction

Prior Knowledge

In KS1, the children have studied how to move a robot and learnt about robot algorithms. They have also completed introductions to animations and quizzes. In KS2, they have created media through audio and photo editing and the Year 4 children have sequenced sounds in music and learnt about programming events and actions. Last term, they learnt about using repeating patterns to draw shapes.

SCRATCH

My Component Knowledge:

Lesson 1: I can predict the outcome of a code snippet.

Lesson 2: I can choose whether to use a count-controlled and infinite loop.

Lesson 3: I can explain what the outcome of a repeated action should be.

Lesson 4: I can explain the effect of my changes.

Lesson 5: I can select key parts of a given project to use in my own design.

Lesson 6: I can build a program that follows my design.

My Composite Knowledge:

I can effectively use a programming platform to use repetition and loops as part of a game.

My Powerful Knowledge:

I can design, create and debug a game in the program scratch making use of carefully selected code blocks. I can predict the outcome of coding before testing it out.
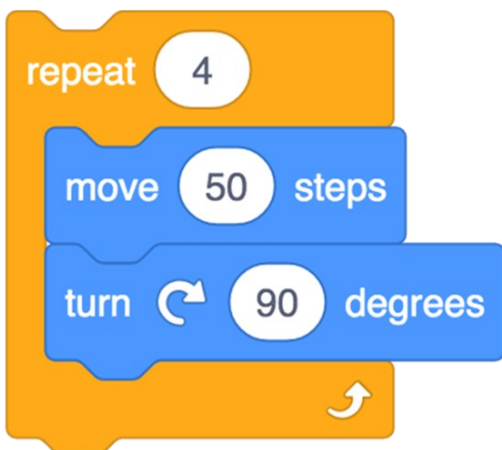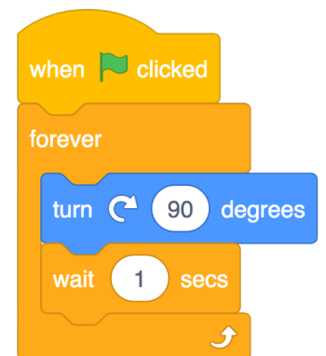
Key Vocabulary

Tier 1: design, test, actions

Tier 2: motion, event, logic, code, setup

Tier 3: sprite, algorithm, debug

What will happen when you press the green flag?

```
when [green flag] clicked
forever
    turn [right] 90 degrees
    wait 1 secs
```

Can you predict what will this code snippet do?

```
repeat 4
    move 50 steps
    turn [right] 90 degrees
```