

My steps through learning:

What I will know and understand

How I will show that I know it

# Steps through Learning Computing : Programming Adventures (Repetition in games)

## Lesson 5

To design a project that includes repetition

I can evaluate the use of repetition in a project

I can select key parts of a given project to use in my own design

I can develop my own design explaining what my project will do



## Lesson 3

To develop a design that includes two or more loops which run at the same time

I can choose which action will be repeated for each object

I can explain what the outcome of the repeated action should be

I can evaluate the effectiveness of the repeated sequences used in my program



## Lesson 1

To develop the use of count-controlled loops in a different programming environment

I can list an everyday task as a set of instructions including repetition

I can predict the outcome of a snippet of code

I can modify a snippet of code to create a given outcome



## What should I already know

## Lesson 6

To create a project that includes repetition

I can refine the algorithm in my design

I can build a program that follows my design

I can evaluate the steps I followed when building my project



## Lesson 4

To modify an infinite loop in a given program

I can identify which parts of a loop can be changed

I can explain the effect of my changes

I can re-use existing code snippets on new sprites



## Lesson 2

To explain that in programming there are infinite loops and count-controlled loops

I can modify loops to produce a given outcome

- I can choose when to use a count-controlled and an infinite loop
- I can recognise that some programming languages enable more than one process to be run at once



## National Curriculum:

- 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
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information