




What I Need to Know: Y4 Computing: Programming B – Repetition in games

We nurture the curiosity to learn, the courage to lead and the compassion to care.

In this unit, we will explore repetition in programming using Scratch. We will make comparisons with Logo and look at the difference between count-controlled loops and infinite loops. We will also modify existing animations and games using repetition.

 Create, Communicate & Evaluate	
Design and create a game which uses repetition, applying stages of programming design & refining my design	
 Question, Reason, Discuss & Explain	
<ul style="list-style-type: none">Explain that in programming there are infinite loops and count-controlled loops	
<ul style="list-style-type: none">Recognise that some programming languages enable more than one process to be run at once	
<ul style="list-style-type: none">Explain what the outcome of the repeated action should be	
<ul style="list-style-type: none">Evaluate the effectiveness of the repeated sequences used in my program	
<ul style="list-style-type: none">Explain the effect of my changes	
 Know & Do	
<ul style="list-style-type: none">List an everyday task as a set of instructions including repetition	
<ul style="list-style-type: none">Modify a snippet of code to create a given outcome	
<ul style="list-style-type: none">Modify loops to produce a given outcome and choose when to use a count-controlled and an infinite loop	
<ul style="list-style-type: none">Develop a design that includes two or more loops which run at the same time	
<ul style="list-style-type: none">Re-use existing code snippets on new sprites	
<ul style="list-style-type: none">Select key parts of a given project to use in my own design	

Vocabulary I need to know...

scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count-controlled loop, animate, costume, event block, duplicate, modify, debug, refine, evaluate, algorithm

Opportunities to support English and maths

- Repetition in poetry
- Conjunctions – for, while in writing

Curriculum Links and Enrichment Activities

- Compare to real life examples of repetition, and identify which parts of instructions are repeated.
- Online safety: keep personal information private, collaborating with other users, giving credit to creator
- Link to repetition used in Y3 computing and creating a musical sequence
- Make links to computing games which use loops and repetition for characters in games