

YEAR 4

4.3 - Designing a Game in Scratch Using Repeat Loops

Computing Area	Computer science
National Curriculum Strands	<ul style="list-style-type: none"> • Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts • Use sequence in programs; work with variables and various forms of input and output • Use logical reasoning to detect and correct errors in algorithms and programs • Select, use and combine a variety of software to design and create content that accomplish (es) given goals, including presenting information
Skills Progression Points	<ul style="list-style-type: none"> • Understand how an algorithm is implemented using a sequence of precise instructions. • Can predict the outcome of a sequence of precise instructions. • Repeatedly test a program and recognise when they need to debug it. • Detect a problem in an algorithm, which could result in a different outcome to the one intended. • Understand what inputs and outputs are, how they can be used. • Provide examples of how to use inputs and outputs effectively. • Designs, writes, executes and debugs programs of increasing complexity that accomplish a specific goal. • Use logical reasoning to predict and debug more complex programs including inputs and outputs.
Hardware	iPads/Laptops/Desktop PCs
Software/App	Scratch online
Unit Objective	To design a game in scratch which uses repeat loops
Unit Vocabulary	Sequence, selection, repetition, input, algorithm, programming, debugging, computational thinking, tinker.