

Topic 1: Loops in Block-Based Coding

Chapter 3: Introduction to Scratch/Block Programming (Detailed) · Topic 1

Key Concept

A loop lets us repeat an action, like moving forward 10 times, without writing the same instruction block ten separate times.

In block-based coding, a 'repeat' block lets us specify how many times an action should happen, like 'repeat 5 times: move forward'.

Loops are useful for creating patterns, animations, and repetitive tasks efficiently in programs and games.

Understanding loops helps us write more efficient programs and understand a fundamental concept used in all programming languages.

Quick Revision Notes

- A loop repeats instructions multiple times.
- It saves effort compared to repeating manually.
- A 'repeat' block specifies how many times to repeat.
- Example: 'repeat 5 times: move forward'.
- Loops help create patterns and animations.
- They make repetitive tasks efficient.
- Loops are fundamental to all programming.
- Understanding loops improves coding skills.

Practice Questions

- 1 Write a loop instruction to repeat an action 3 times.
- 2 Discuss why loops are useful in coding.
- 3 Plan a simple animation using a loop.
- 4 Explain a loop using a daily life example, like brushing teeth in circular motions.
- 5 Discuss how a loop differs from a single instruction.
- 6 Create a simple flowchart showing a loop.