

Y6 Computing N2K

Programming A – Variables in games

Autumn 1 2025

Concepts

Computer Science

Design, write and debug programs that accomplish specific goals; 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.

Key Skills

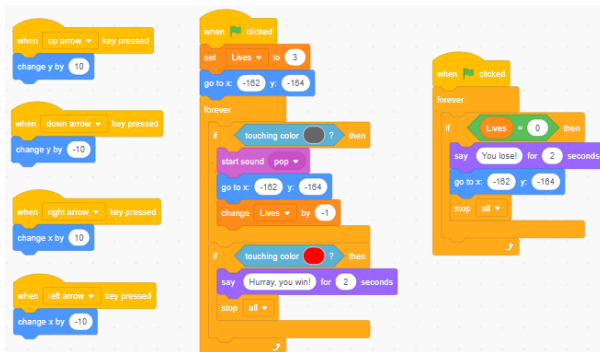
- Explain that a 'variable' as something that is changeable.
- Decide how to improve a game by using variables.
- Design a project that builds on another example.
- Use a design to create a project.
- Evaluate a project.

Enquiry Questions

What is a variable?

How does a program use the value in a variable?

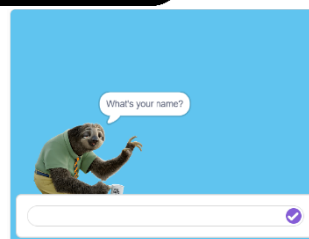
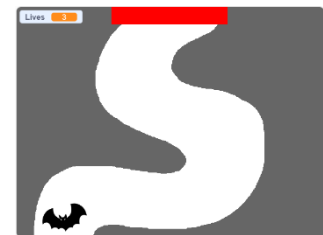
What can a variable hold?



Try out using **variables** in these **Scratch** projects. How do the variables improve the game?



 Bat Maze



 Chat Bot

Key Vocabulary

variable - A named piece of data stored in a computer's memory. It can be accessed and changed by a computer program.

value – A letter, word or number that is collected by a computer.

set – A value that a program begins with and resets to when it restarts.

algorithm - A precise set of ordered steps that can be followed by a human or a computer to achieve a task.

debug - the process of finding and correcting errors in a program.