We Are Game Developers — Year 5

Objectives

We are learning to:
- 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 programs.
- Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals.

Previous learning

An instruction tells you to do something.

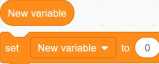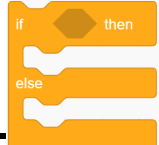**An algorithm** is a precise list of instructions.

A program is an algorithm written in a way a computer understands.

A parameter is a number put into a block to tell the computer how far/often to do it.

Websites and Apps

https://scratch.mit.edu/parents/ This is the website for Scratch - the programming language we use in school.

Key Vocabulary

flow chart	Diagram which shows an algorithm.
variable	A changeable value recorded in Scratch's memory - it can be used to keep score, for example.
assign	To give a value to a variable.
if / then / else	A Scratch block which executes one part of the program if a condition is met, and another part of the program if it is not met.

E-Safety

Scratch

In this unit you will plan and design a game.

You will first need to decide what type of game it will be.

Then, plan your game - you might use a flow chart.

Next, program the game.

Finally, debug the program to make sure it works properly.

This program uses the variable 'timer' to time 30 seconds.

It sets 'timer' to 30, waits 1 second and then reduces 'timer' by 1. When 'timer' reaches zero, the game is over and stops.