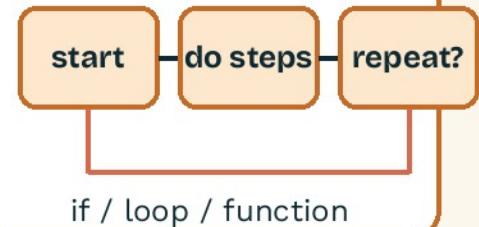


Programming: How Code Works

Clear step-by-step instructions for a computer

WHAT IS IT?

Programming means writing precise instructions that a computer follows. You break a big problem into small steps and write each step in a language the computer understands.



THE BIG IDEAS

- 1 A program is a list of steps, run one at a time.
- 2 Variables store information; functions package steps you can reuse.
- 3 Decisions (if) and repeats (loops) control what happens.
- 4 Debugging, finding and fixing mistakes, is a normal part of the work.

YOU SEE IT WHEN ...

Apps, games and websites

Traffic lights and washing machines

Spreadsheets and automatic tasks

WORDS YOU WILL MEET

Algorithm

a step-by-step method for solving a problem

Variable

a named box that stores a value

Loop

repeats steps a set number of times, or until a condition is met

Function

a named, reusable block of steps

Bug

a mistake in the code

Syntax

the spelling and grammar rules of a language

GOOD TO KNOW FIRST

Logical thinking and basic arithmetic. A computer is all you need.

IN YOUR COURSE YOU WILL ...

- Write and run small programs
- Build and reuse functions
- Use variables, decisions and loops
- Find and fix bugs

Start tip: Start tiny: make it work with one example, then grow it.