



Coding - Microbits

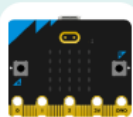
Key Learning

- To code a micro:bit to make it work as a step counter.
- To code a micro:bit to make a light switch that switches on or off when the light level changes.
- To code a micro:bit to make a rock, paper and scissors game.
- To code micro:bits to make simulated dice.

Key Resources



Free Code
micro:bit



micro:bit



Key Images



Open, close or share
a file



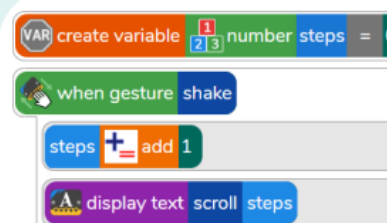
Save



USB transfer



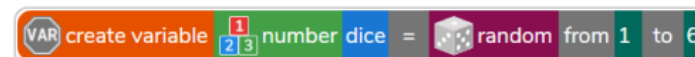
Test code using
simulator



An event triggered by a gesture which
adds 1 to the variable 'steps' and outputs
this number



Logic – If/Else. This enables the micro:bit
to make decisions based on inputs



A variable called dice which is set to random number. It has a range of 1 to 6

Key Vocabulary

Accelerometer - A sensor that detects movement.

If/Else Statement - A conditional command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else' block are run.

Data - A set of facts or information that help us learn something or make decisions.

Logic - How computers make decisions based on whether things are true or false.

Gestures - A type of input where the micro:bit is moved in different ways such as tilting, dropping and shaking.

If Statement - A computer uses an 'if' statement to decide which bit of code to run. If a condition is true, then the commands inside the block will be run.

Light Sensor - An input that senses the level of light in the real world.

Selection - A decision command. When selection is used, a program will choose which bit of code to run depending on a condition.

Sensor - An input that senses things in the real world, such as movement, temperature, and light levels.

Simulation - A computer model of something in the real world.

Variable - A named area in computer memory. A variable has a name and a value. The program can change this variable value. Variables are used in programming to keep track of things that can change while a program is running.

Infinite Loop - A loop that runs forever.