

Microbit Lesson 1

Learning Objective

I can write a program that simulates a physical system.

I can use variables in my programming.

Lesson: to write a dice simulation program and download to the microbit

Teaching:

Teach the children how to set up the laptops and microbit.

Show the children the different inputs for the microbit. Shake button ETC

Show the children the Random function.

Go through a simple algorithm flow chart on the board to show the different stages of the program.

Start on shake

choose a random number form 1-6 (point out the random number code block starts from 0)

display a dice image for that number on the microbit.

Shake again

choose random number from 1-6

display dice image for that number.....

Show the children how to save and download the files to the microbit.

Get children to have a go at creating the program.

Assessment:

Have all the children managed to get the microbit programmed to simulate a 6 sided dice when shaken.

Have they successfully created a variable in the program.

Extension:

Create programs to choose between a 6 sided and a 10 sided depending on whether the a or b buttons were pressed.

Set a variable Dice to 6 or 10 then on shake if Dice = 6 run 6 sided if dice = 10 run 10 sided.

Evidence:

Saved programs in folder on network.

Sample Programs Basic 6 sided

Extension 6 or 10 depending on button press

