

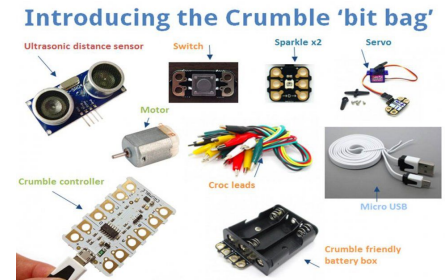


Respect, Believe, Achieve

Year 4

Physical Computing

Computer Science



Key Words

component

One part of a computer e.g. circuit board, sensor, wire, light.

computer hardware

The physical parts of a computer that you can touch e.g. circuit board, processor.

computer software

Computer games, programs operating system and apps which you cannot touch.

input

Components which send information to the computer e.g. camera, button.

output

Component which send information from the computer e.g. screen, light, speakers.

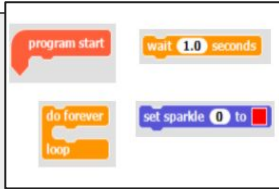
What do I already know?

- I can break a problem up into smaller parts
- I can put programming commands into a sequence to achieve a specific outcome
- I keep testing my programme and can recognise when I need to debug it
- I can set up conditional events with 'if statements'
- I can set up a sequence
- I can describe the algorithm that I will need for a simple task
- I can detect a problem in an algorithm that may result in unsuccessful programming

Our Learning Steps

1. Play and explore

I will explore simple commands to control lights.



2. Simple carousel game

I will learn to program a simple spinner which I can control with a button.



3. Planning

I will plan my own carousel spinning game and how the lights will be used to control the game.

4. Testing My Game

I will run my game and check that it works. I will test and fix the program. I will learn to troubleshoot components and programming.



5. Building and Playing

I will make my game design cover. I will make notes



6. Assessment: Evaluate the Game

I can control lights with a computer.
I can use inputs to change program.
I can troubleshoot problems in components and programming.

