



Computing (Computer Science) – Year 5

How do alarms work?

Big Idea:

Electrical appliances are programmed to work by humans and can be started and stopped in different ways.

What should I already know?

- How to write and debug a program controlling physical systems.
- How to program an electrical circuit to turn on/off depending on the input.

What will I know by the end of this unit?

- How to adapt an algorithm depending on the type of input.

Primary Crumble:



Press the switch to turn on

```

program start
do forever
  turn all sparkles off
  wait until A is HI
  set sparkle 0 to red
  wait 250 milliseconds
  turn sparkle 0 off
  set sparkle 1 to blue
  wait 250 milliseconds
  turn sparkle 1 off
loop
  
```

Press the switch to turn off

```

program start
do forever
  turn all sparkles off
  wait until A is HI
  wait 250 milliseconds
  do until A is HI
    set sparkle 0 to red
    wait 250 milliseconds
    turn sparkle 0 off
    set sparkle 1 to blue
    wait 250 milliseconds
    turn sparkle 1 off
  loop
loop
  
```

Key vocabulary:

Input	The action performed by a user on a device.
Output	The action performed by the device.
Commands	Instructions given to computer device.
Pattern	A sequence that reoccurs.
Hardware	The physical components of a machine/device.
Software	The programs and algorithms used to make a machine/device function.