

## 6.3 Investigating electric circuits

### Aim

To make series circuits and investigate how energy of the light bulbs change.

### Equipment

An electrical circuit kit with: two AA Batteries, two light Bulbs or LEDs, Wires and a Switch  
Extra – small DC motor.

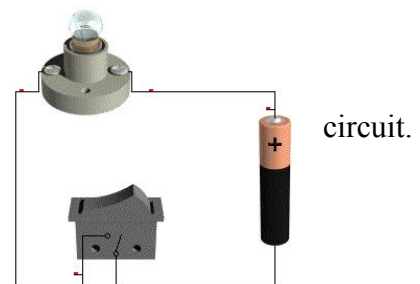
### Method

1. Build circuit 1 as shown:

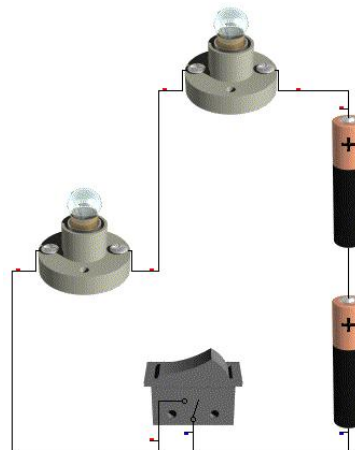
Q What does the switch do?

Q Name the input (or sensor) and outputs you used in this

Q Name the energy device



2. Build the two circuits shown;



Q How does adding more light bulbs affect the power of the light bulbs?

Q What changes when you connect two batteries in series?

### Conclusion

**What did you learn about connecting devices together?**

**Can you suggest another way of connecting light bulbs or motors to a battery so they don't lose power? Draw it or even try it yourself.**

### Using a motor

Try connecting a light bulb and motor in series with a single 1.5V battery what did you notice?

Now try 2 batteries how does the output change in the light bulb? In the motor?