

Conceptual

- Make a circuit diagram to show how you light a bulb – draw components as necessary
- Draw the equivalent circuit schematic diagram.

Basic Make

- Make a light bulb turn on
 - Use a breadboard and appropriate connectors
- Make a drawing of how a breadboard is wired
- Make a measurement of voltage

Advanced/Extended Make

- Make your diagrams using Fritzing
- Make a measurement of current
- Light more than one light bulb
 - Find two ways to light the bulbs
 - Make series and parallel schematic diagrams

Equipment

- Computer with access to Fritzing
- Digital Multi Meter (DMM)
- Circuit components: batteries, bulbs etc
- Crimper tools

Objective

Physics Concepts

- Electrical Circuit
- Voltage, Current and Resistance

Experimental analysis

- DMM – continuity

Technology Concepts

- Schematic symbols
- Use of crimpers