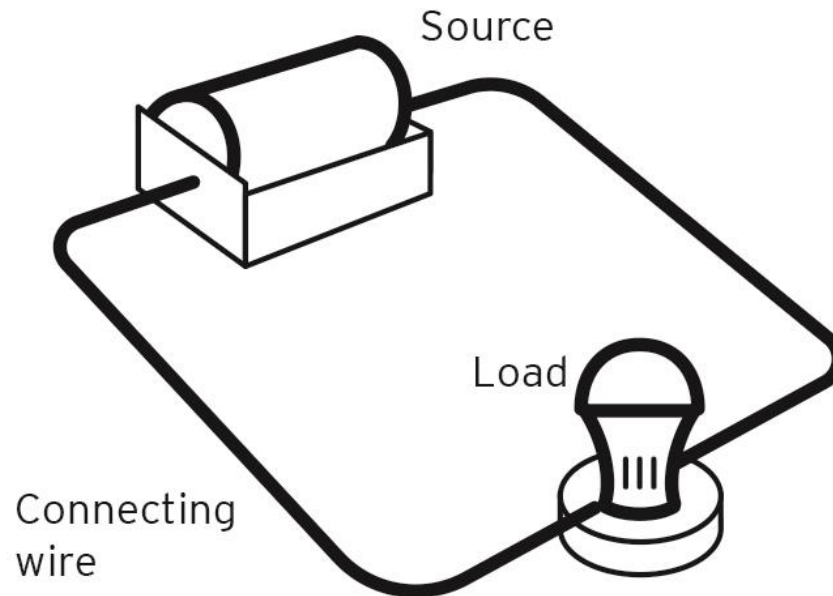


# Circuit concepts



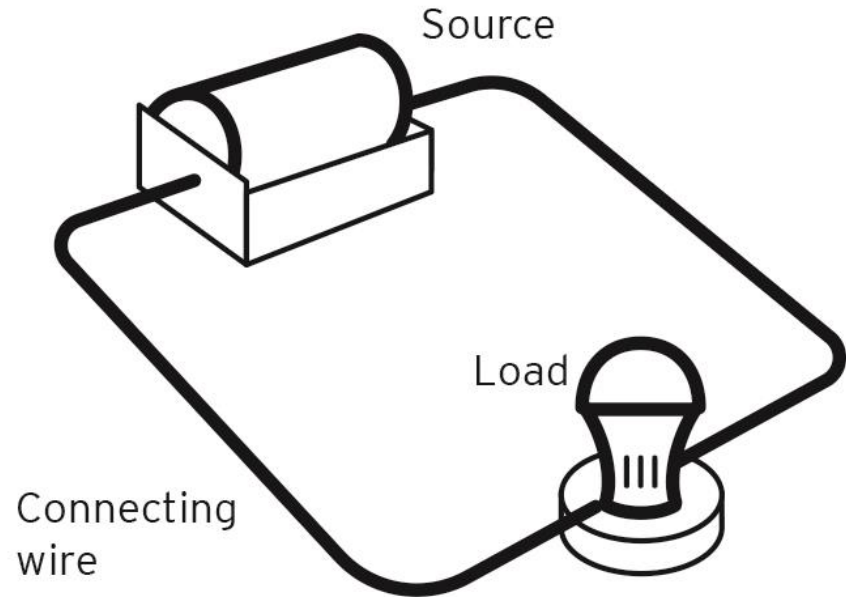
# Circuits

- A circuit is a loop between two or more points where an electrical current is carried.
- An electrical current is the flow of an electric charge.



# Circuit basics

- basic parts:
  - source (e.g. battery)
  - load (e.g. light bulb)
  - conductor (e.g. wires)
- optional parts:
  - switch
  - resistor(s)



# Current

- defined as the flow of electric charge
- measured in amperes (amps)
- symbol: A



# Voltage

- defined as the potential electrical energy between two points
- the pressure from the source that pushes the electrons around the circuit
- measured in volts
- symbol:  $V$



# Types of circuits

- simple circuits
- series circuits
- parallel circuits
- compound circuits

# Simple circuit

- A simple circuit includes a single source, a single load and wires.
- The voltage in the circuit is equal to voltage from the single source.

