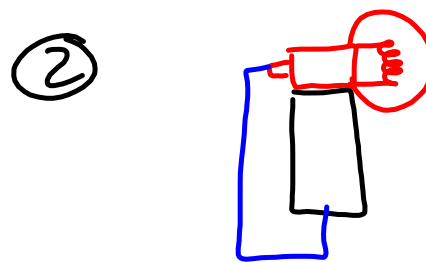
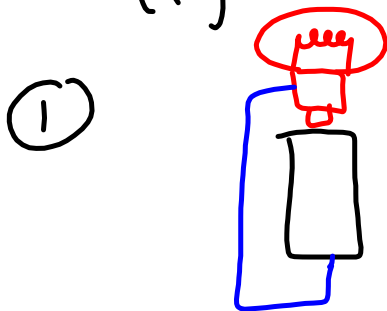
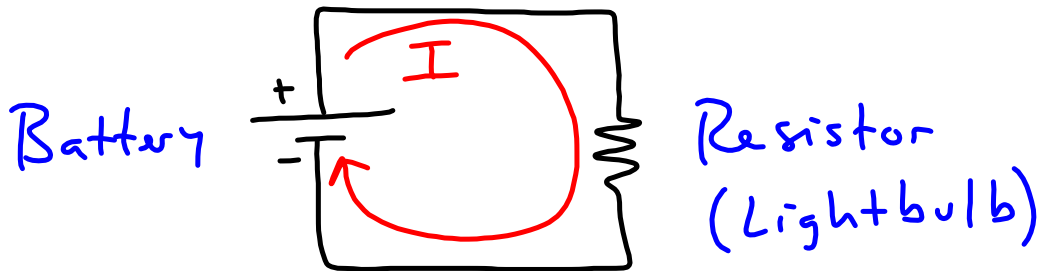


CIRCUITS

- Determine two ways to make the bulb light.



- Simple Circuit



- Battery → energy source for circuit
→ measured in volts (V)

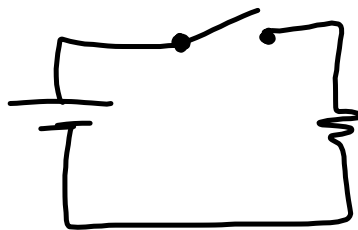
- Resistors → pieces that help control current
→ measured in ohms (Ω)

- Current → flow of positive charge

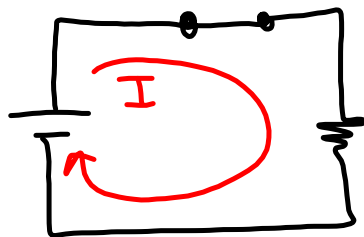
$$\rightarrow I = \frac{\Delta q}{\Delta t} \Rightarrow \text{current is charge per time}$$

→ measured in amperes (A)

- Open Circuit \rightarrow Circuit is NOT connected, so there is NO current



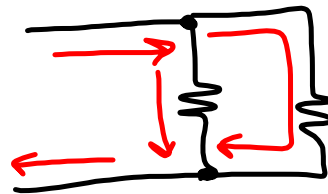
- Closed circuit \rightarrow wires ARE connected, so there is current



- Two ways to connect pieces:
 - Series
 - Parallel



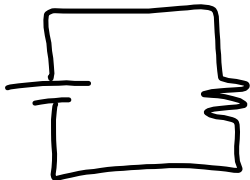
- One pathway for current



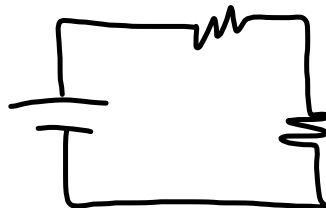
- Multiple pathways for current to move

- Make these circuits

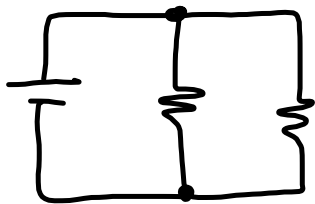
①



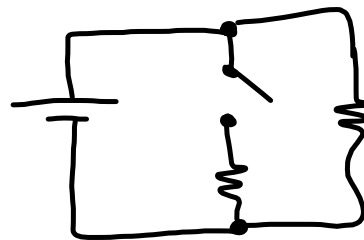
②



③



④



- Make your own:
 - Minimum 2 batteries, 1 switch, 3 bulbs
 - Draw circuit on whiteboard; tell us what the switch turns on/off