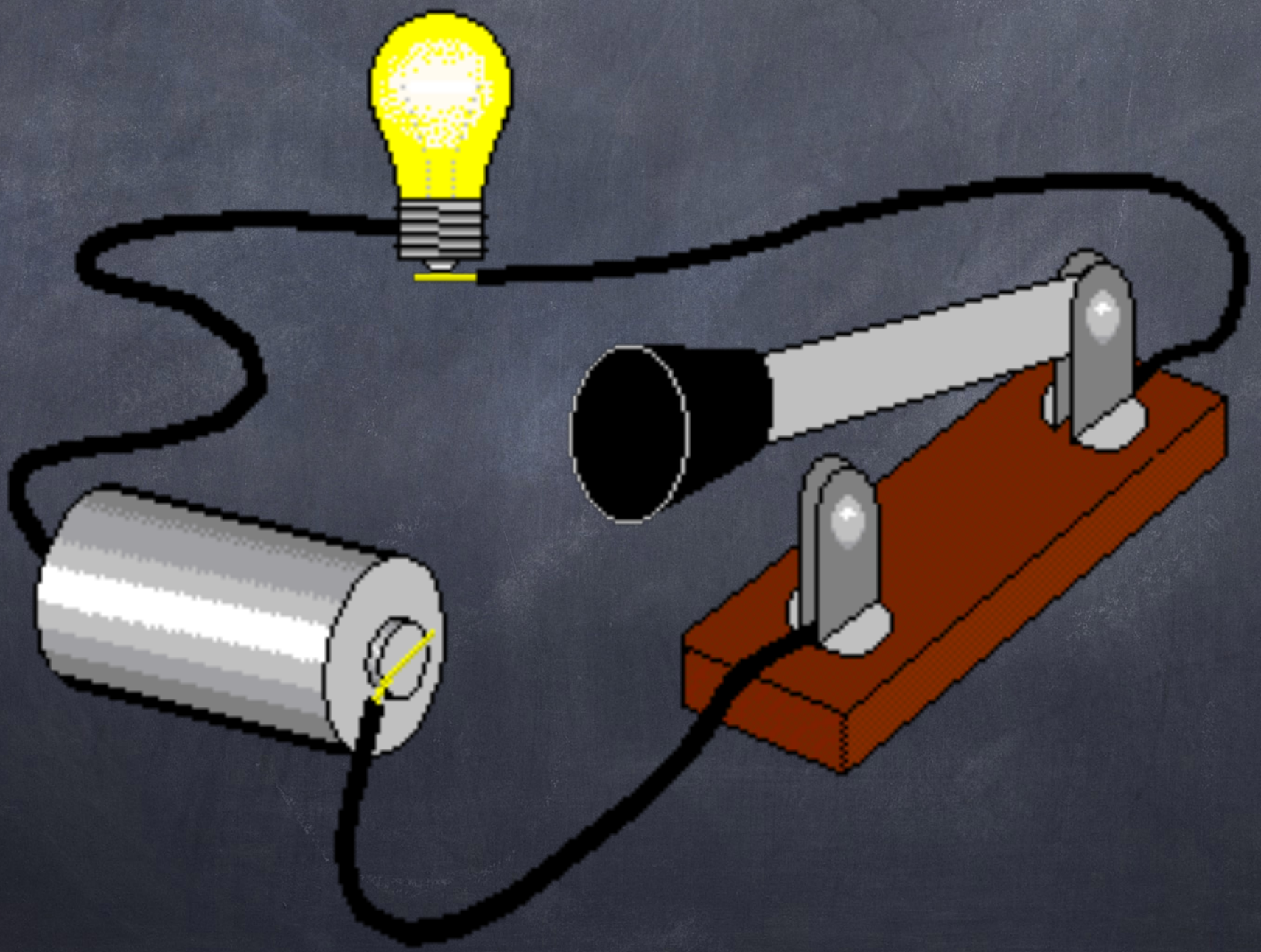
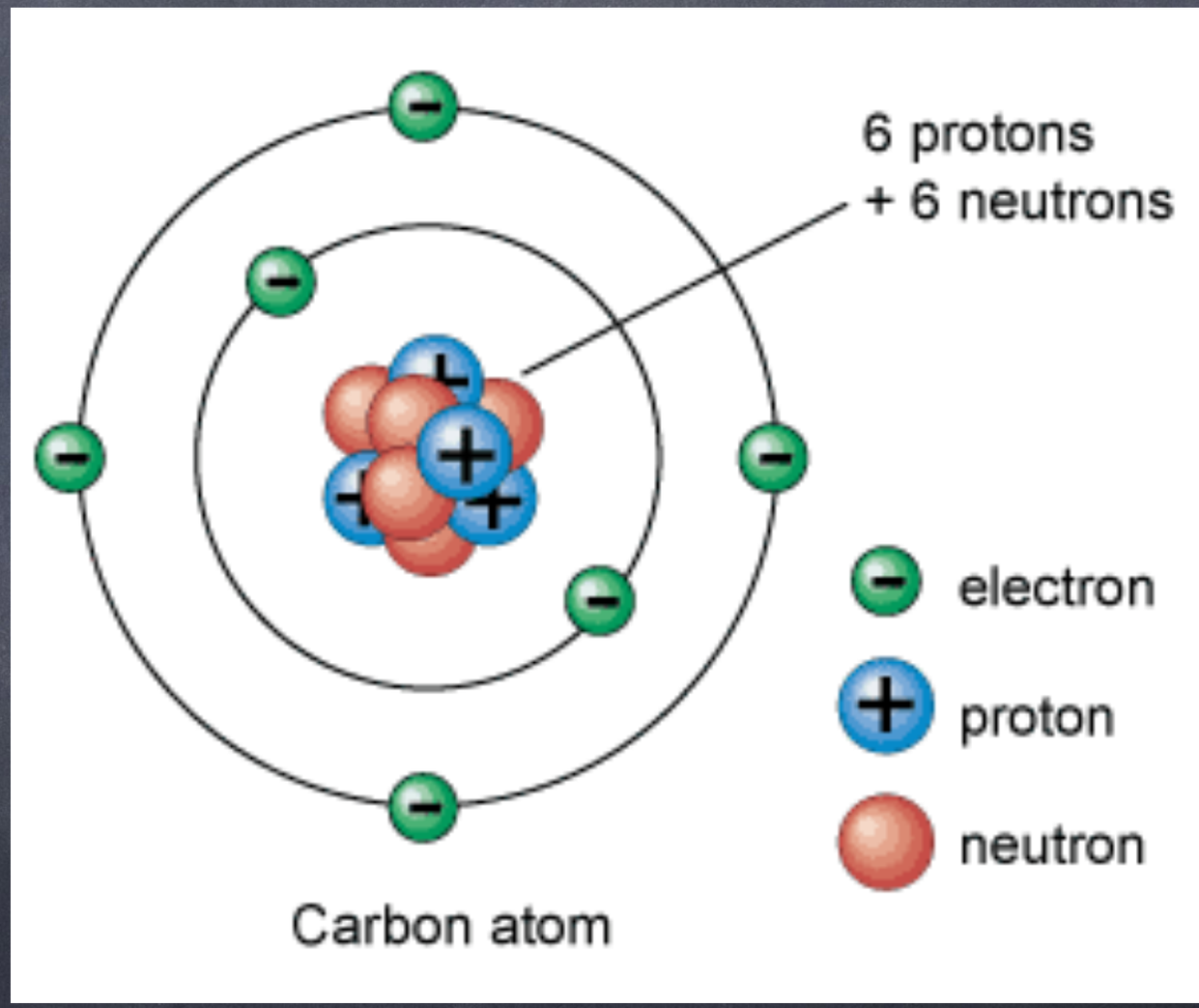
Unit 7 (2nd part)
ELECTRICITY



Section 1: What is electricity?

- Electricity is NOT a special substance.
- Electricity is EVERYWHERE.
- We don't feel it because it's trapped inside the atoms of ordinary matter.
- As you can see, the positive and the negative electricity cancel each other, so the atoms are electricaly neutral.

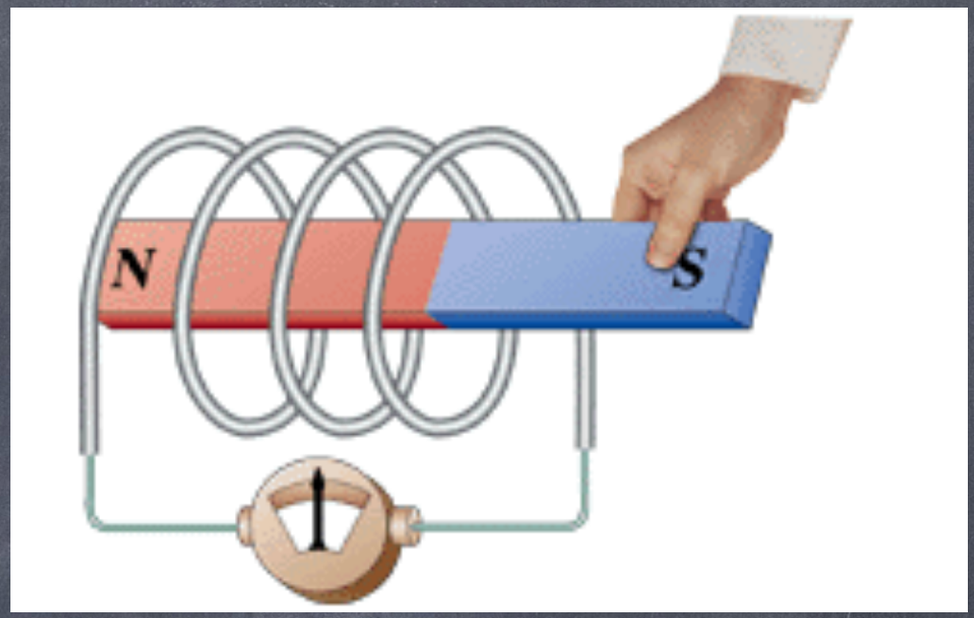


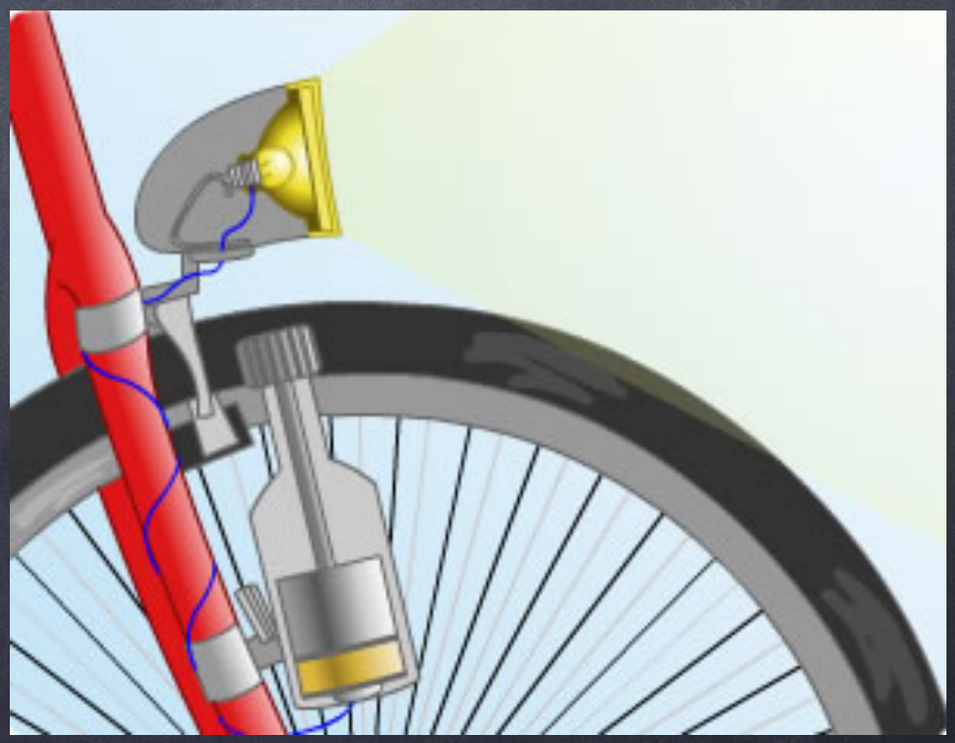
Section 2: How is electricity produced?

- Electricity can be produced by friction.
- If you rub a plastic object against a cloth, it becomes able to atract small pieces of paper.
- This is called static electricity.
- Static electricity is the origin of lightning.

Section 2: How is electricity produced?

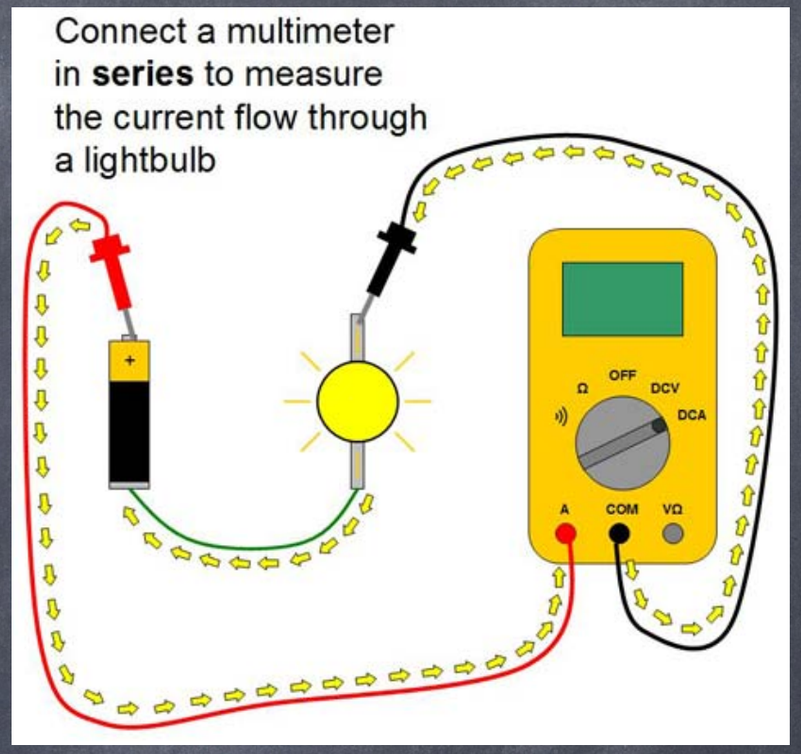
- Electricity can also be produced by magnets.
- If you move a magnet close to a metal wire, an electric current is induced on the wire.
- This is called electromegnetic induction, and is the way electric generators work.

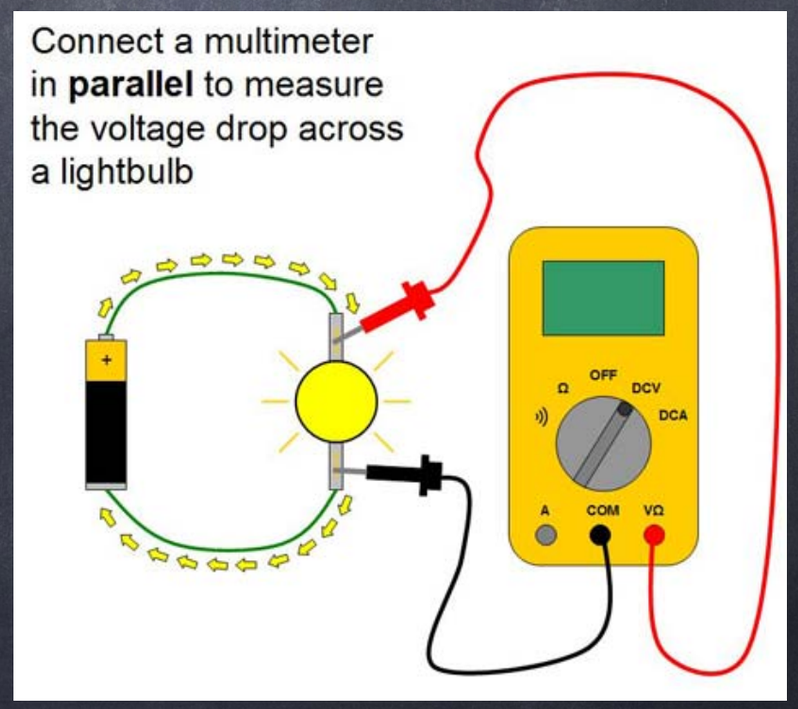




Section 3: How is electricity measured?

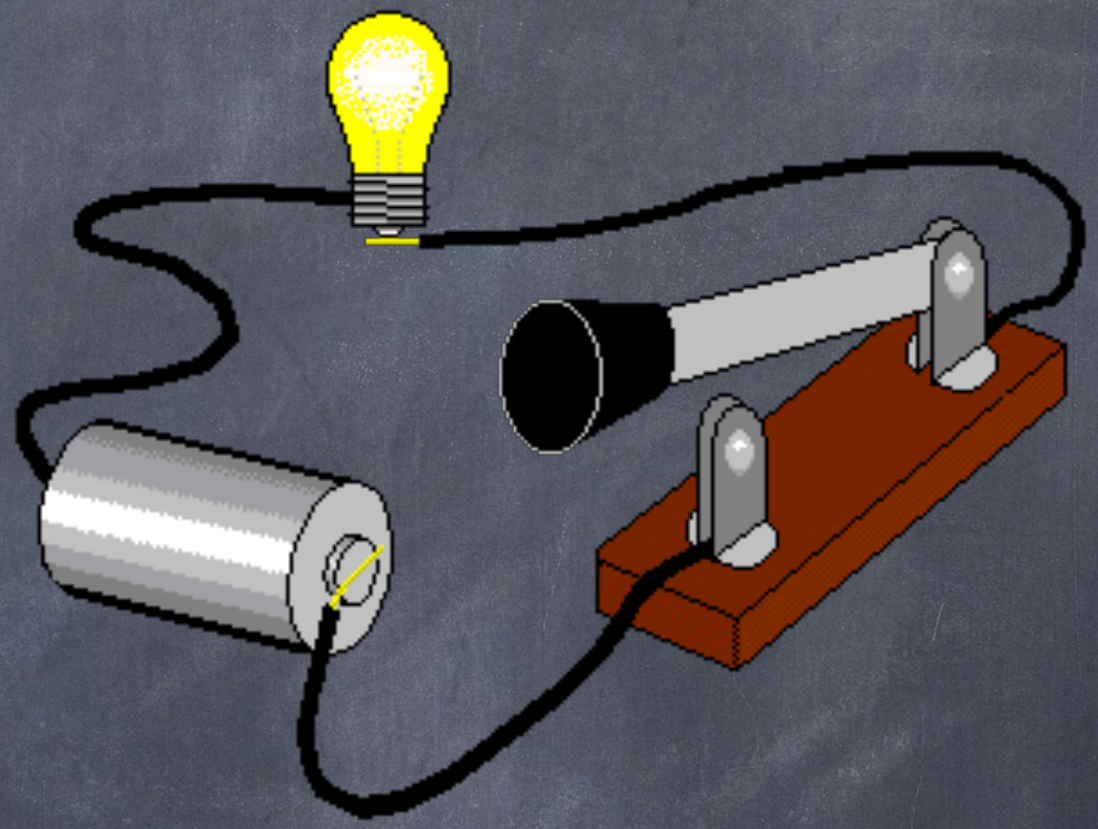
- Electricity can be measured.
- The amount of electricity that crosses a wire is measured in amps with the ammeter.
- The energy of the electric current is measured in volts with the voltmeter.

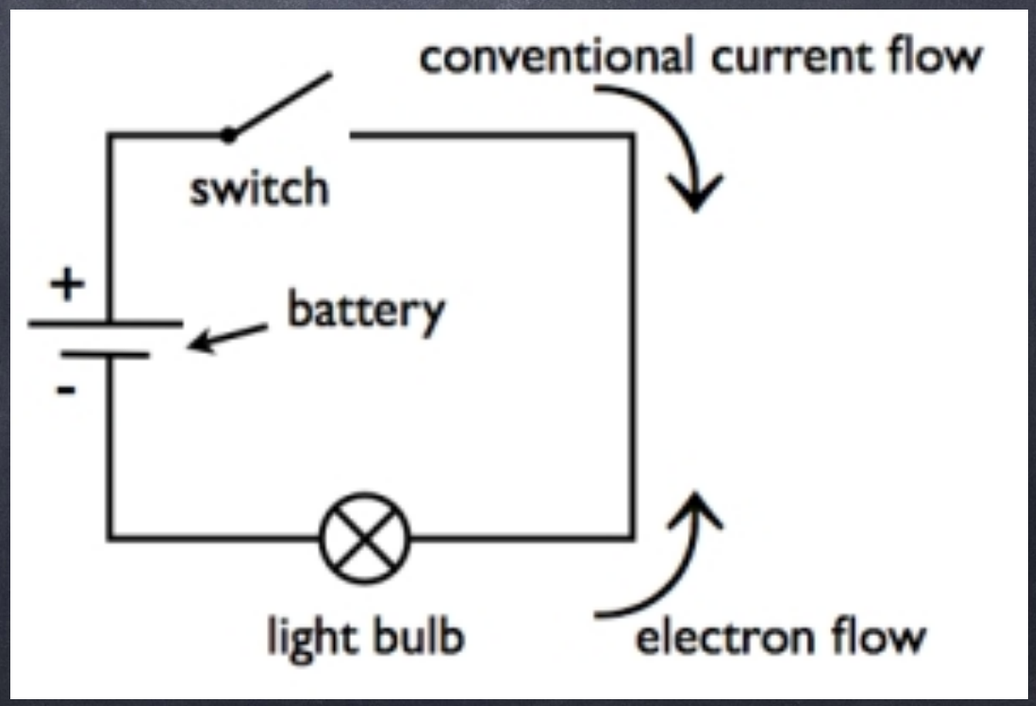




Section 4: How is electricity controlled?

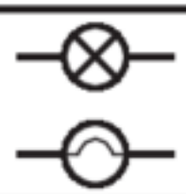
- Electricity can be controlled by electric circuits.
- A basic electric circuit is a combination of a battery, a switch, a light bulb and wires.
- The switch is the control element, which turns the light on or off.





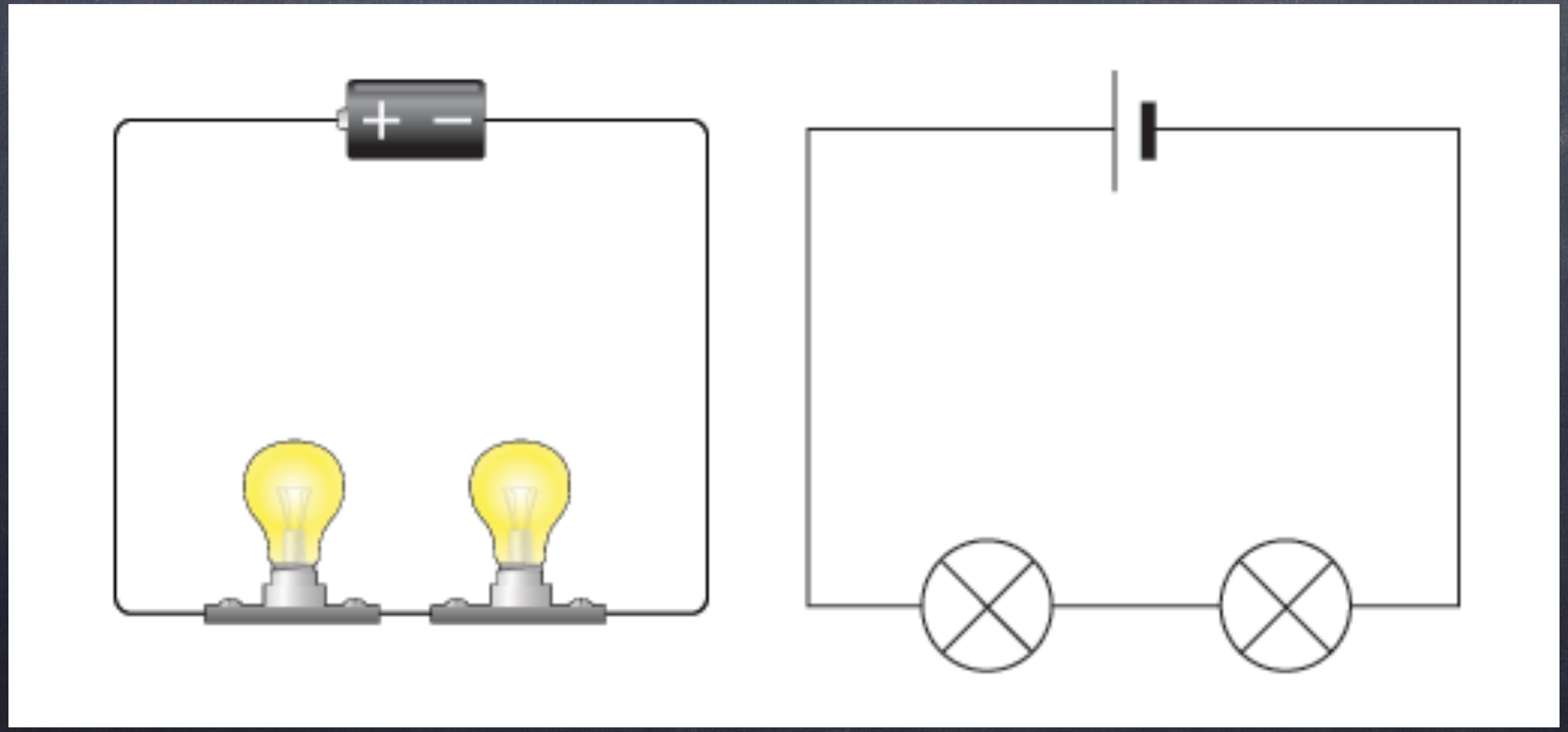
Section 4: How is electricity controlled?

Electrical Symbols

Component	Symbol
Battery	
Bulb	or 
Buzzer	
Motor	
Switch (off)	
Switch (on)	

Section 4: How is electricity controlled?

Series circuit: if one light breaks, none of them will work.



Section 4: How is electricity controlled?

Parallel circuit: if one light breaks, the rest will still work.