



# Electricity



# Acid

(a·cid)



Example: Batteries contain an *acid* solution that can be dangerous for you and the environment.

Definition: A liquid chemical substance. Some kinds of acid can burn holes in things or damage your skin.





# Battery

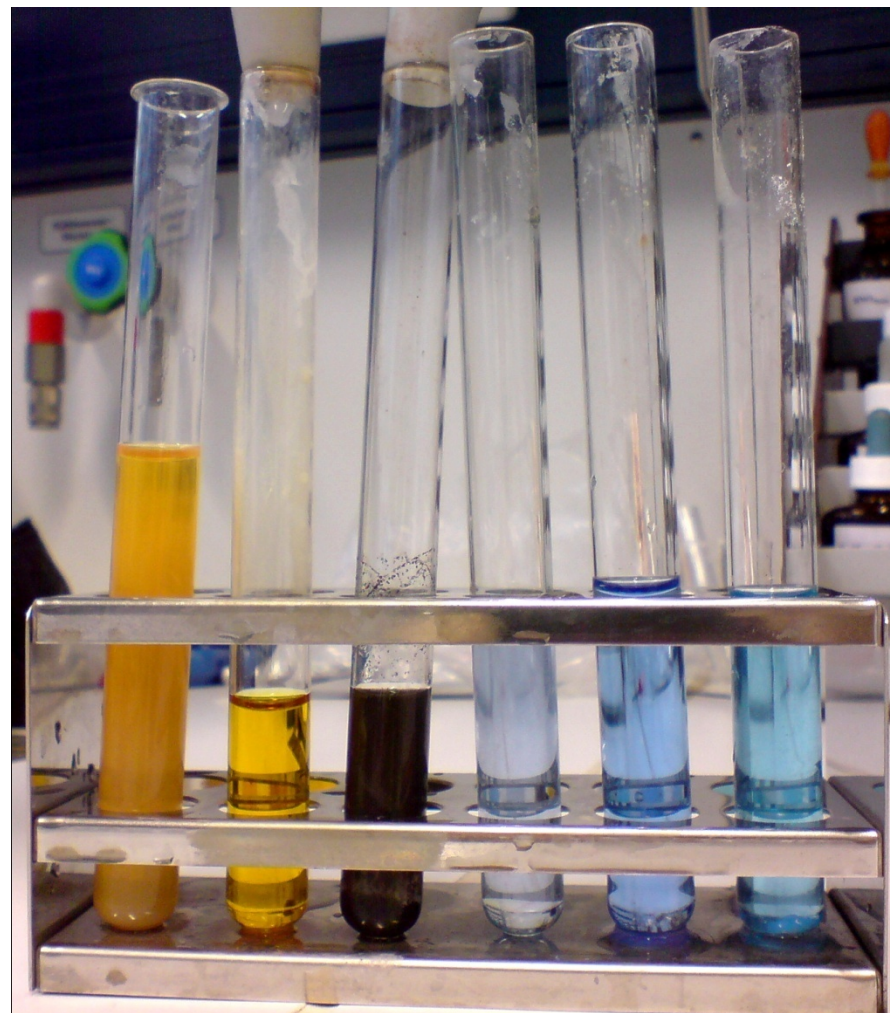
(bat·ter·y)





# Chemical

(chem·i·cal)



Left photo: Chemicals in Flasks. ©2006 by Joe Sullivan. Some rights reserved. Creative Commons Attribution 2.0 Generic. Right photo: Reactions of copper nitrate. ©2009 by Tubifex. Some rights reserved. GNU Free Documentation and Creative Commons Attribution-Share Alike 3.0 Unported, 2.5 Generic, 2.0 Generic, and 1.0 Generic licenses.

# Circuit

(cir·cuit)

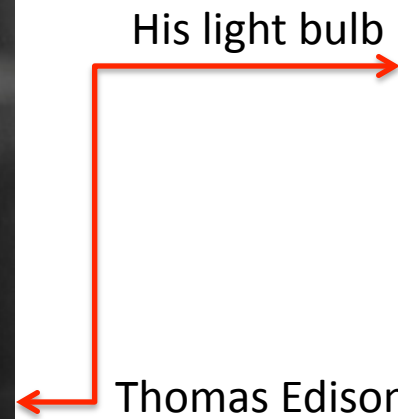
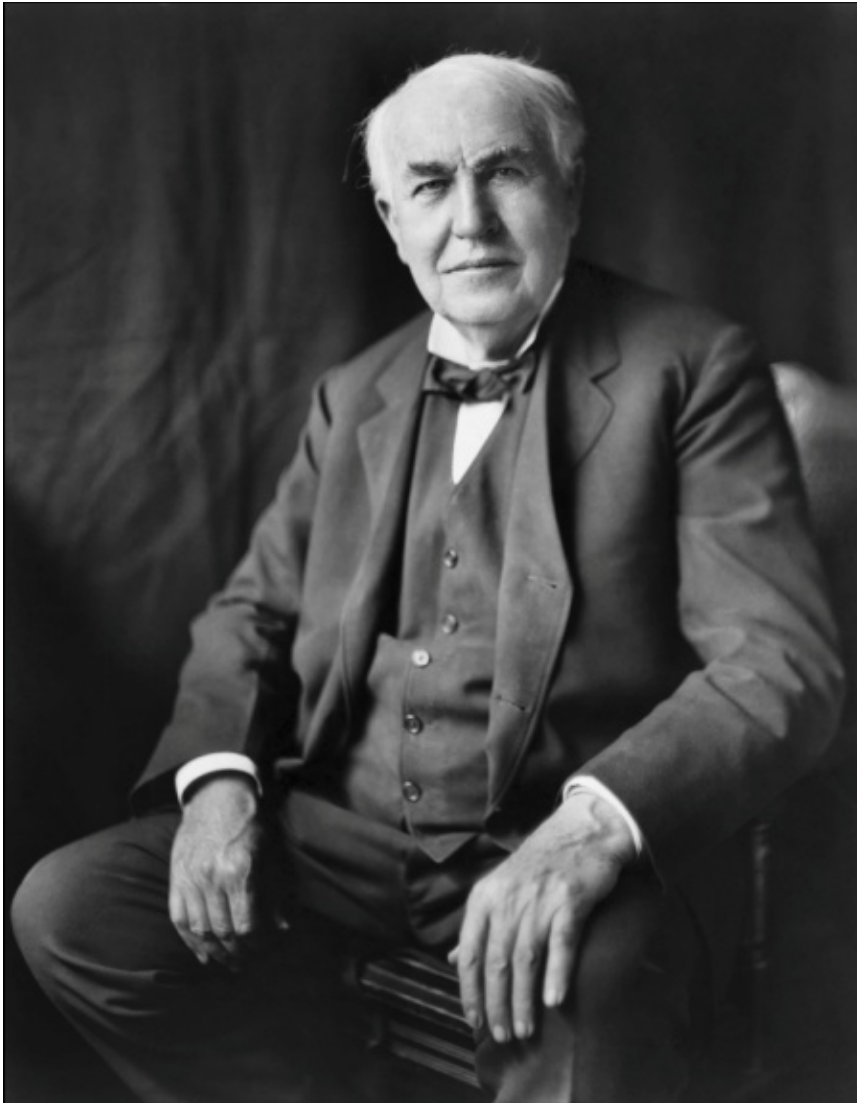
Definition: The complete circle that an electric current travels

Example: The electricity completes a *circuit* when it travels through the wire to light bulb and back through the wire again.



# Edison

(Ed·i·son)



Thomas Edison  
Example: Thomas *Edison* perfected the light bulb so that it was longer lasting.

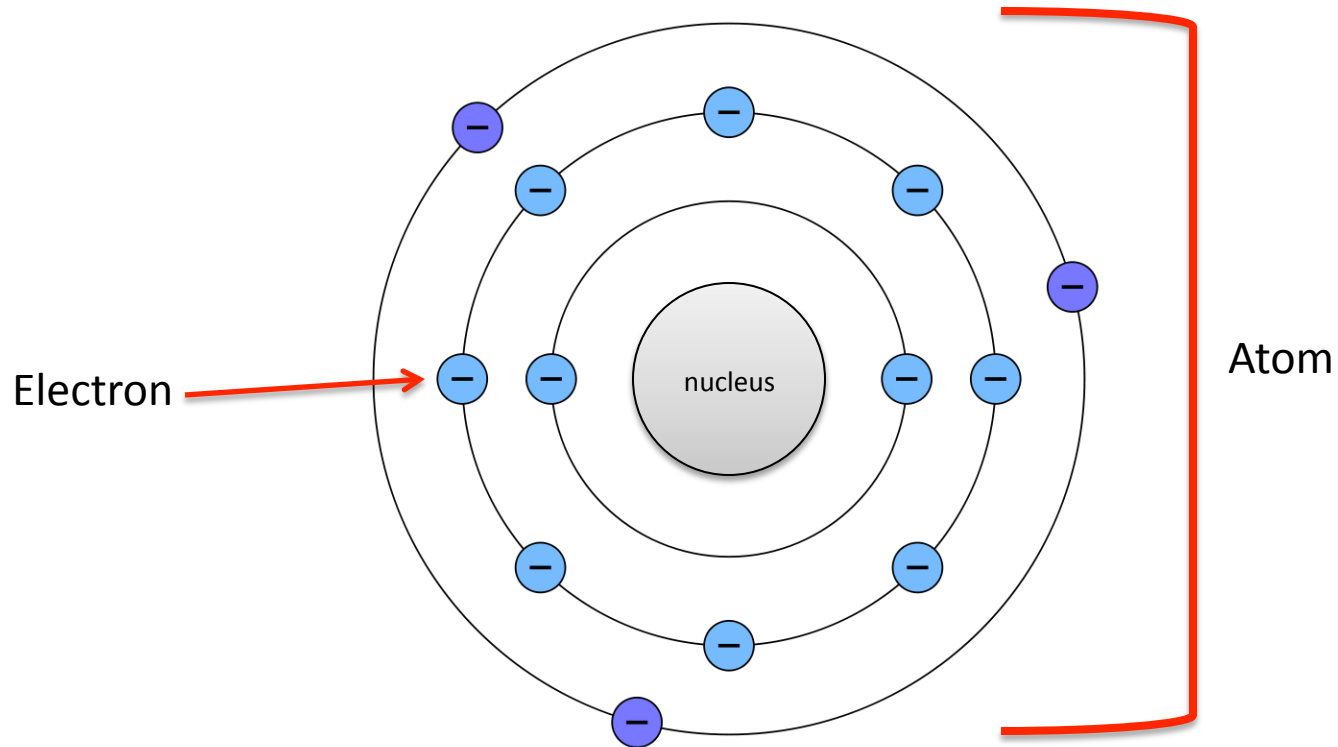
Left photo: Thomas Alva Edison ca. 1922. Photo released into public domain because of an expired copyright.

Right Photo: An original Edison light bulb from 1879 from Thomas Edison's shop in Menlo Park. © 2008 by Terren. Some rights reserved. Creative Commons Attribution 2.0 Generic.



# Electron

(e·lec·tron)



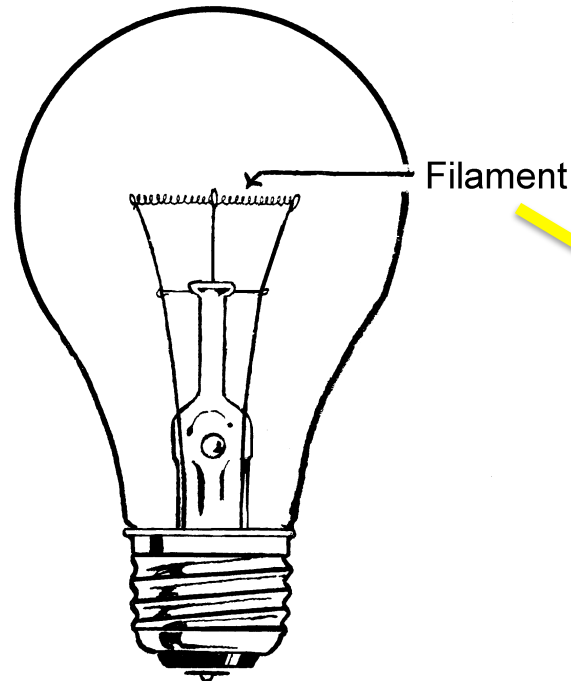
Definition: A very small piece of matter that moves around the nucleus  
Example: *Electrons* circle the nucleus.

# Filament

(fil·a·ment)

**Definition:** the threadlike conductor, often of tungsten, in the bulb that is heated to incandescence by the passage of current.

**Example:** Thomas Edison discovered that a light bulb with a tungsten *filament* lasted longer than other kinds of filament.





# Generator

(gen·er·a·tor)

Definition: a machine that converts one form of energy into another, especially mechanical energy into electrical energy, as a dynamo, or electrical energy into sound, as an acoustic generator.

Example: In case of an emergency, a generator can be helpful in making enough energy for small homes.



# Invention

(in·ven·tion)



**Definition:** Something that had not been made before.

**Example:** Cell phones, airplanes, and bandages that stick on you are all *inventions* of the 20<sup>th</sup> century.



# Meter

(me·ter)

Definition:

A piece of equipment that measures the amount of gas, electricity, or time used.

Example:

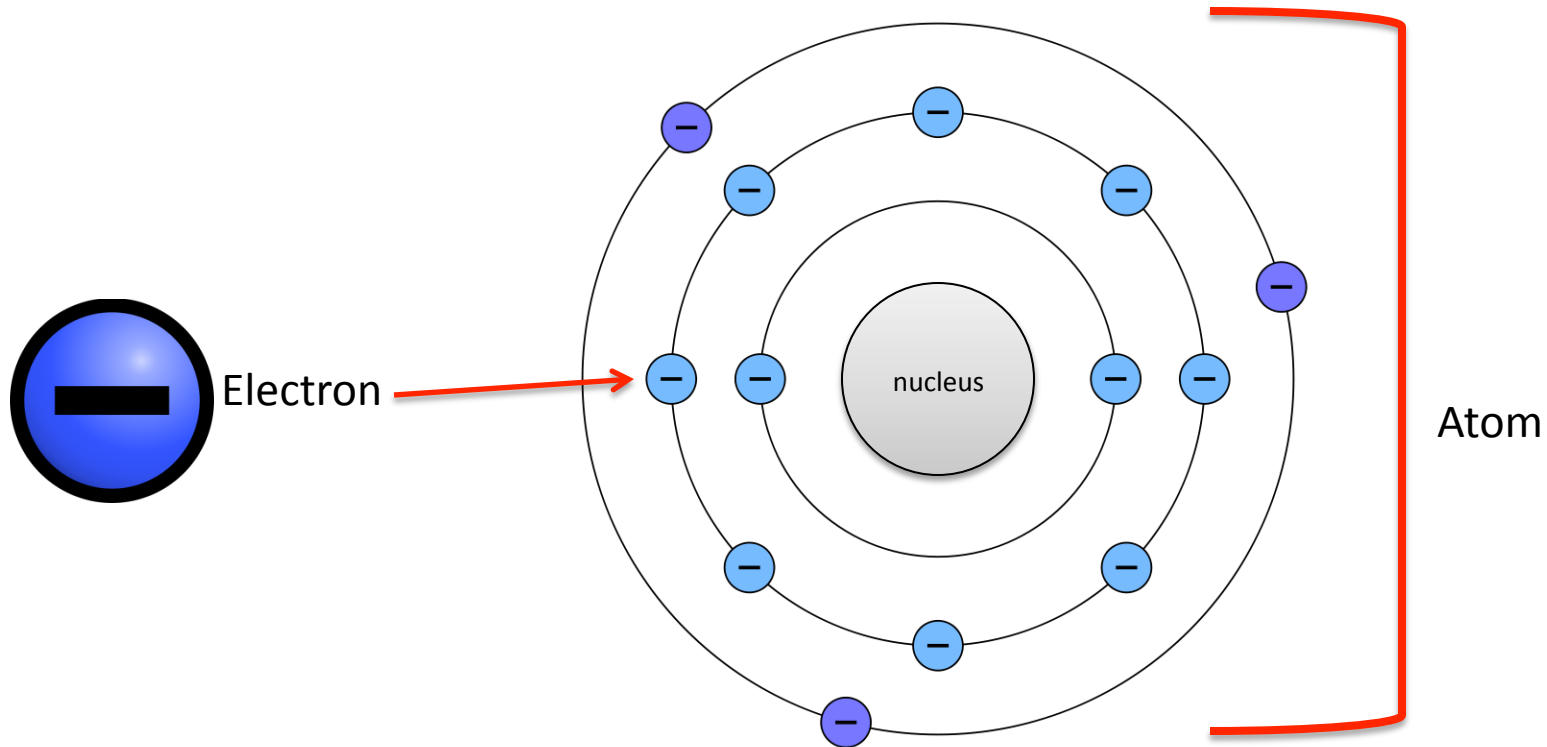
This *meter* measures how much electricity a house uses.





# Negative

(neg·a·tive)



Definition: having a type of electrical charge that is carried by electrons  
Example: Electrons carry a *negative* charge.

# Operate

(op·er·ate)

Definition: If a machine operates or you operate it, it works or you make it work.



Example: An alarm clock *operates* by plugging its chord into an outlet or installing batteries.

# Outlet

(outlet)





# Portable

(port·a·ble)

Definition: capable of being transported or conveyed

Example: In the last 10 years computers and phones have become very *portable*, making them easy to carry in our pocket.



# Positive

(pos·i·tive)



Definition: Having the type of electrical charge that is carried by protons

# Resistance

(re·sist·ance)



Definition : The degree to which a substance can stop electricity from going through it

Example: Wires have a rubber coating because they provide *resistance* against the electricity flowing through the metal wires.



# Solution

(so·lu·tion)



Definition: a liquid mixed with a solid or gas

Example: In order to make a *solution* at home, simply add table salt (a solid) and water (a liquid) together.

# Static

(stat·ic)

Definition: of, relating to, or producing stationary charges of electricity

Example: It's *static* electricity that causes your hair to stick up when you go down the slide.

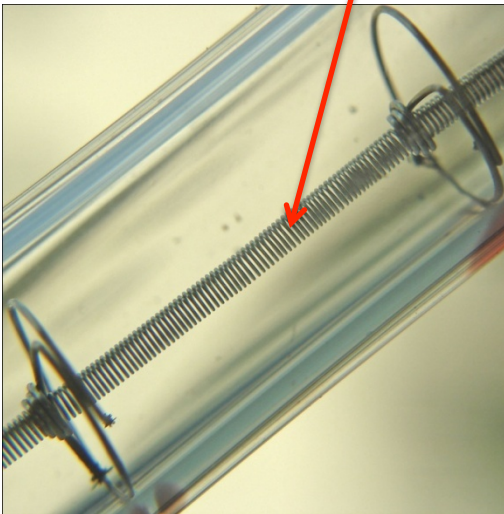
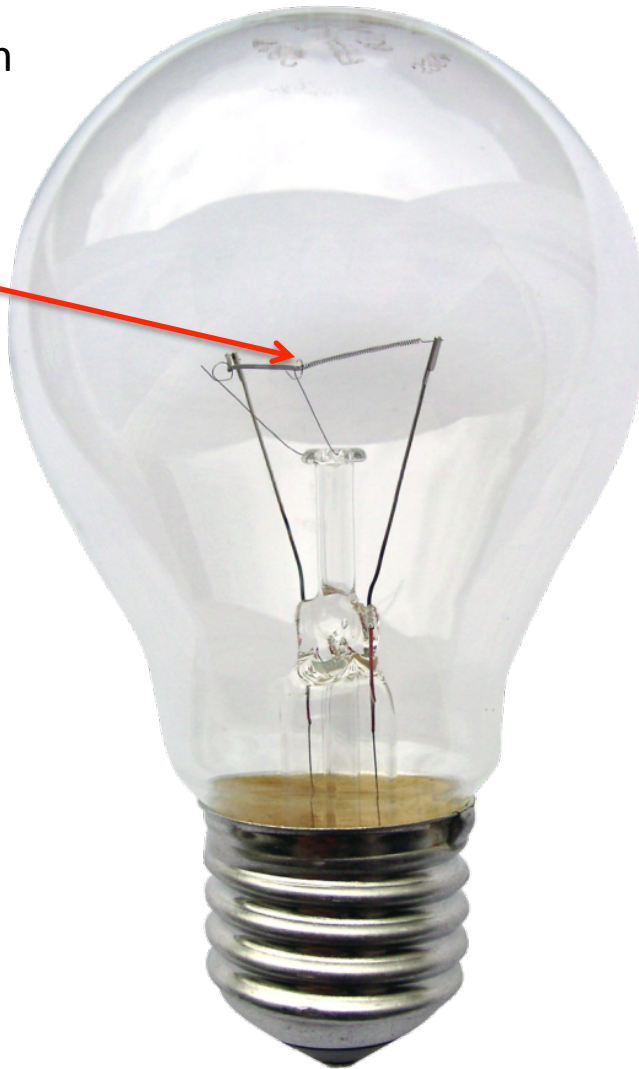


# Tungsten

(tung·sten)

Definition: a rare, metallic element that is bright-gray in color

Example: *Tungsten* is can be found in most light bulb.



Left photo: Closeup of a Tungsten filament inside a Halogen lamp. ©2007 by w>User:Planemad. Some rights reserved. Creative Commons Attribution-Share Alike 2.5 Generic. Center photo: Electric bulb. ©2004 by KMJ. Some rights reserved. GNU Free Documentation License and Creative Commons Attribution-Share Alike 3.0 Unported. Right photo: Tungsten rods and a pure tungsten cube. © 2010 by Alchemist-hp. Some rights reserved. Free Art License, GNU Free Documentation License 1.2, and Creative Commons Attribution-NonCommercial-NonDerivative 3.0.