

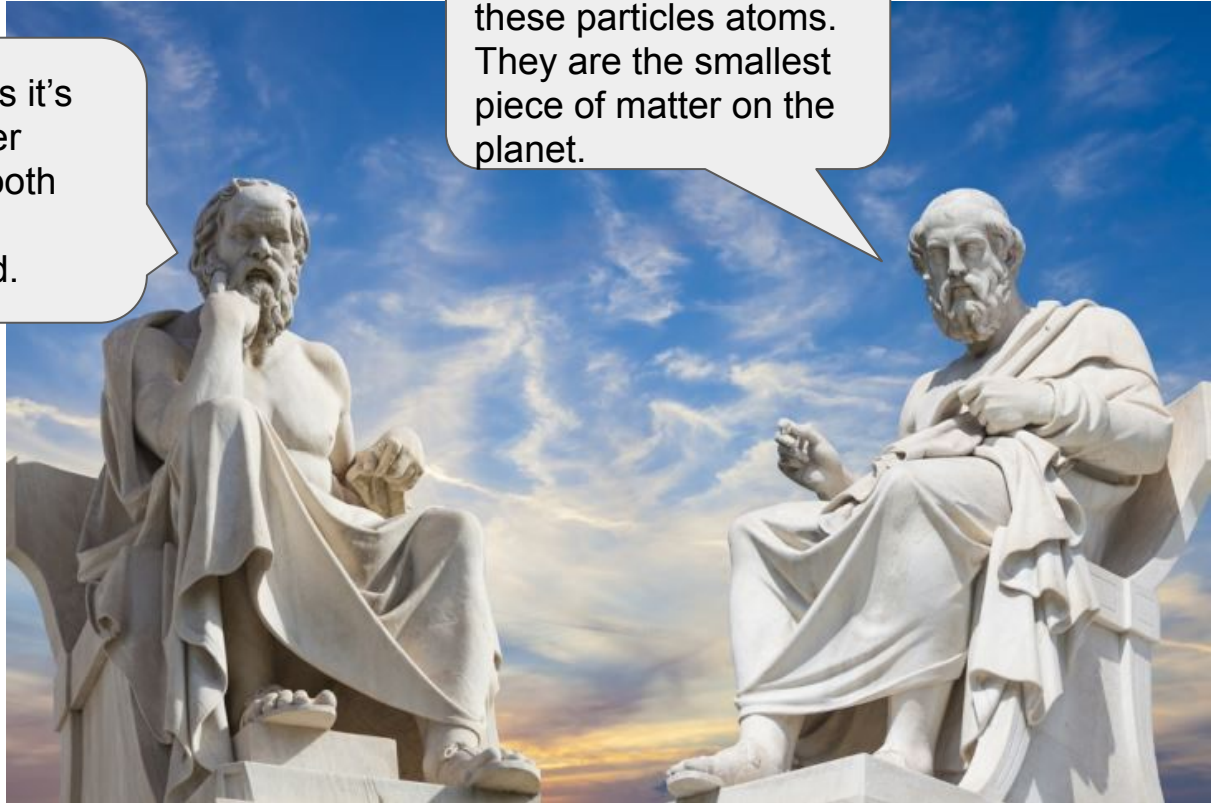
# Memory Lane

A scrapbook of an atom's road to discovery

# The Greeks

Every particle has its own shape. Water particles are smooth and clear, stone particles are hard.

Oh! I agree. Let's call these particles atoms. They are the smallest piece of matter on the planet.



## New Vocab:

**Atom: Smallest indivisible unit of matter.  
Makes up all matter.**

# 2000 years later...



Dalton said the same thing as the Greeks. The smallest indivisible unit of matter was the atom. And each type of matter had a different size.

Difference between Dalton and the Greeks? Dalton had experimental evidence to back him up.

## Billiard Ball Model

100 years later...

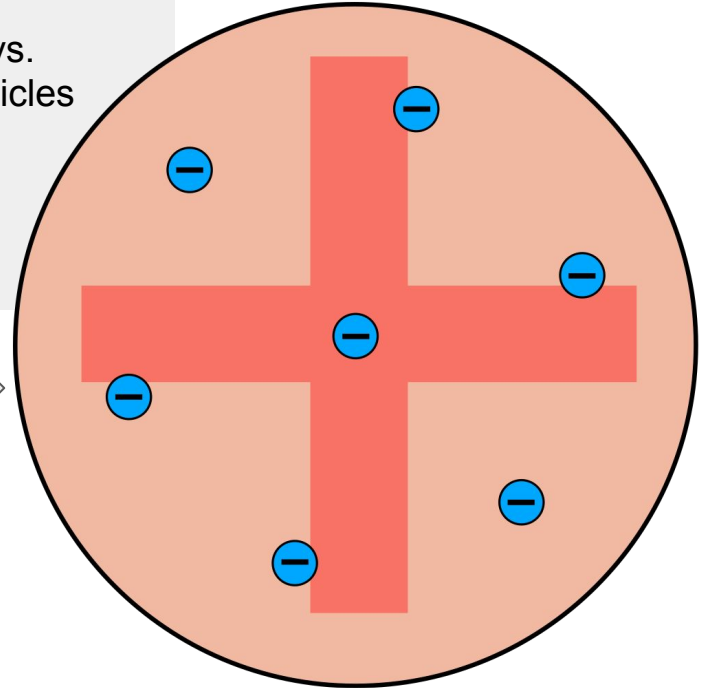


## J.J. Thompson

Experiment using Cathode Rays.  
Proved there was charged particles  
that made up an atom.

Plum Pudding Model

Plum Pudding



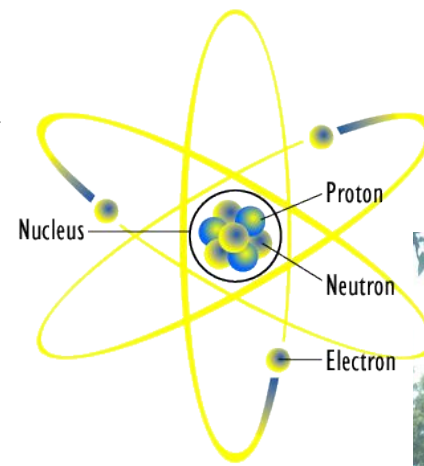
## New Vocab:

**Electron: Small NEGATIVE charge within an atom**

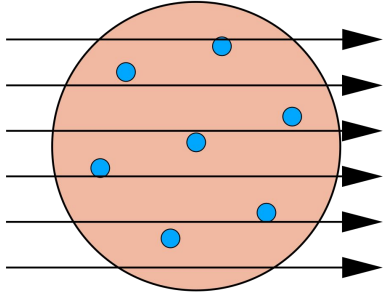
**Proton: Small POSITIVE charge within an atom.**

# 10 years later....

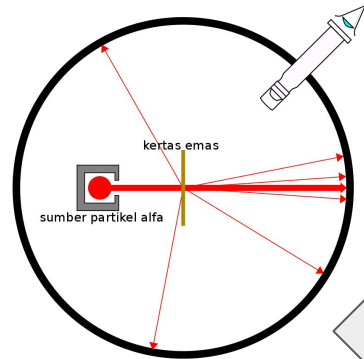
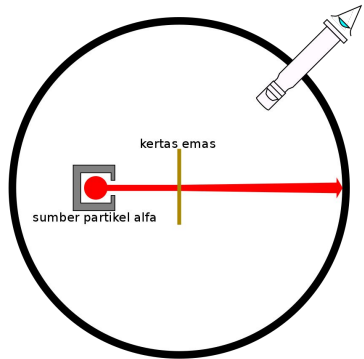
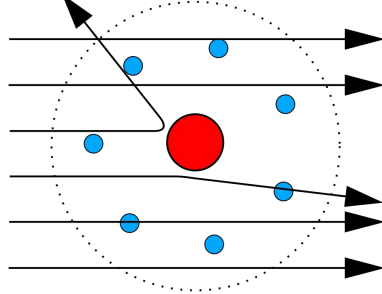
Planetary Model



MODEL THOMSON



MODEL RUTHERFORD

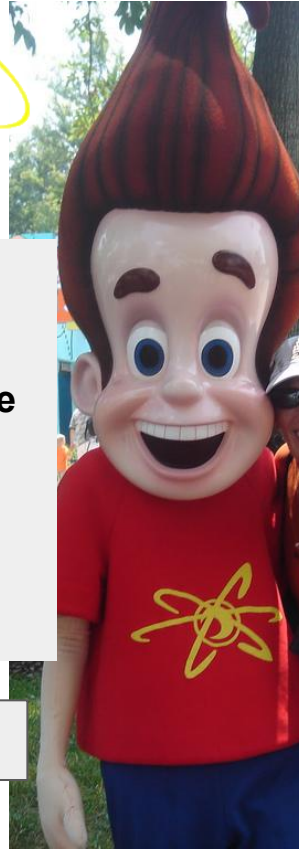


HASIL TERAMATI

## Ernest Rutherford

Sent small particles into a thin piece of gold foil, if there was no mass in the middle, they would have gone straight through. But that didn't happen. They bounced all over the place.

Experiment proving Rutherford's theory



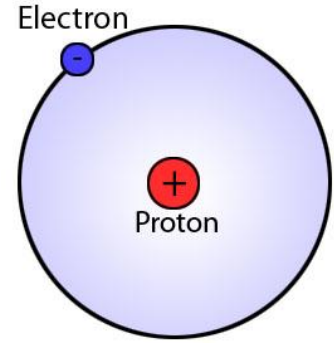
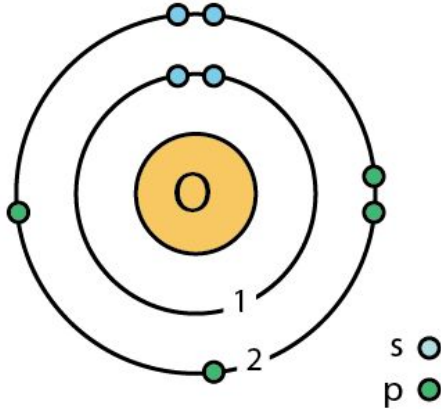
## New Vocab:

**Nucleus: Most of the mass within an atom is contained in the nucleus. Contains Proton and Neutron**

**Neutron: It is a NEUTRAL particle inside the centre of the atom.**



3 years later... (1913)

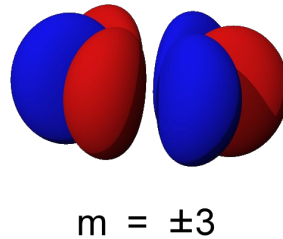
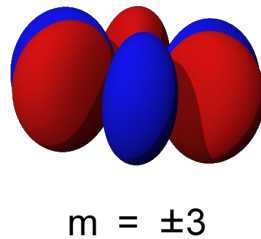
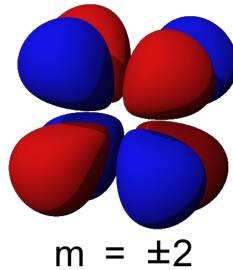
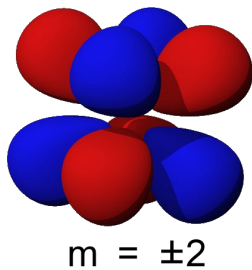
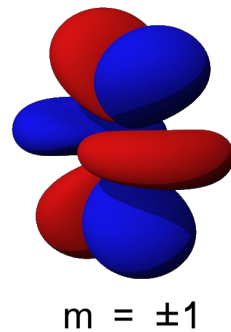
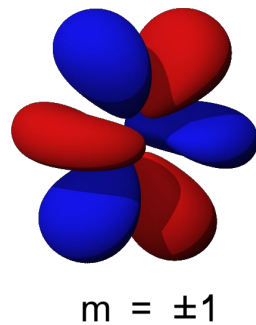
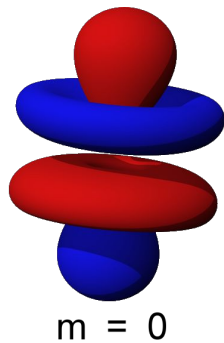
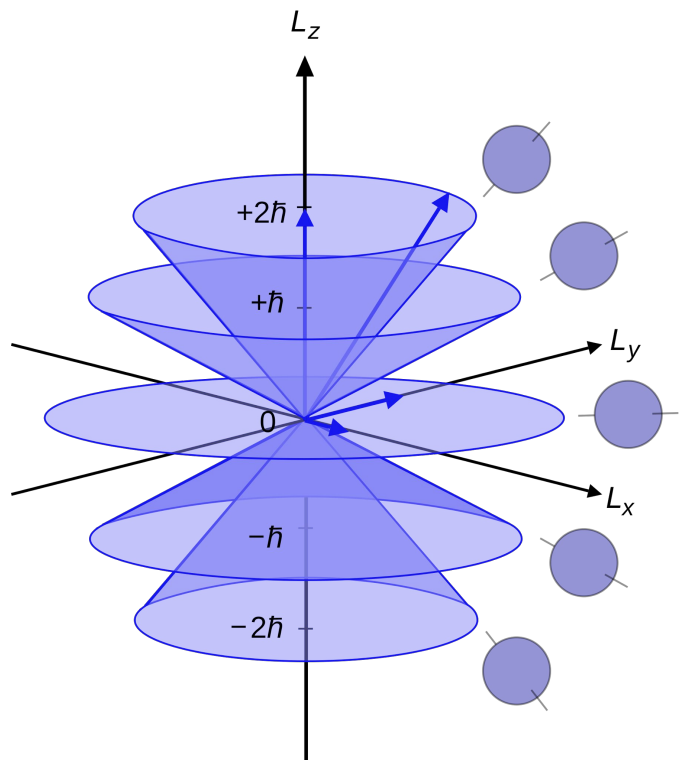


## Nehl Bohr

There are different energy levels for electrons. They rotate in a specific level.

His experiment showed that as electrons leave certain levels, they release energy.

# Quantum Model



**The End... For Now**