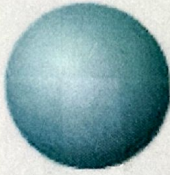

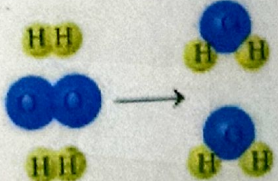


PERIOD:

DATE:

CHAPTER 4
ATOMIC MODELS OF THE ATOM

<u>NAME OF DISCOVERER</u>	<u>MAJOR POINTS</u>	<u>DIAGRAM</u>
DEMOCRITUS	"Atomos" = atom (not to be cut / Indivisible) - Smallest piece of Matter is the atom	 <p style="text-align: center;">Democritus (400 B.C.)</p>
ANTOINE LAVOISIER	Law of Conservation of Mass	
JOSEPH PROUST	Law of Definite Proportions	

DALTON

Atomic Theory of Matter

wrong idea
(proven wrong) *

1. Elements are composed of atoms
(Indivisible)
2. Compounds are 2 or more elements
3. Elements in a compound always combine the same way.
4. Atoms of the same element have the same mass



J.J. THOMSON

Plum Pudding Model

* Proved Dalton's #1 wrong.

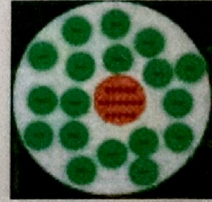
- Discovered the Electron
- Cathode Ray Tube Experiment
- Electron is negative



ERNEST RUTHERFORD

Gold Foil Experiment

- Discovered the Nucleus + the Proton.
- Protons are Positive



ROBERT MILLIKIN

Mass of the electron

GOLDSTEIN

Mass of the Proton

CHADWICK

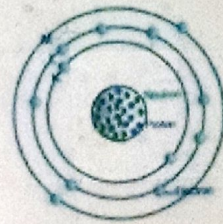
Mass of the neutron

NEILS BOHR

- Electrons are in Specific ENERGY LEVELS.

(Like Planets orbiting the sun)

* Electrons can be EXACTLY Located *



WERNER HEISENBERG

- Impossible to locate the electrons exactly
But

we can make a good guess

WAVE / CHARGE CLOUD MODEL

• Electron Clouds

- Blurred regions where electrons are most likely to be found.

