

REVIEW

Chapter 4 : Lesson 4A+B

1. Match up the Scientist on the left with their Discovery or Contribution to the development of the Atomic Theory on the right :

James Chadwick

Niels Bohr

John Dalton

Ernest Rutherford

J.J. Thomson

Democritus

Solid Sphere Model

Discovered the Electron.

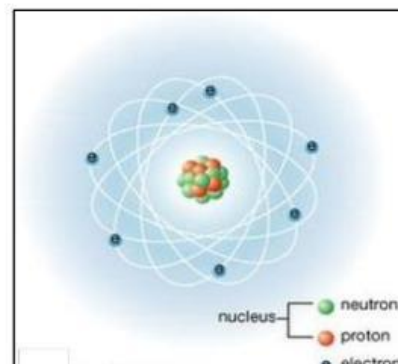
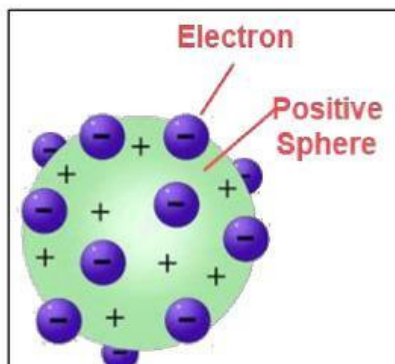
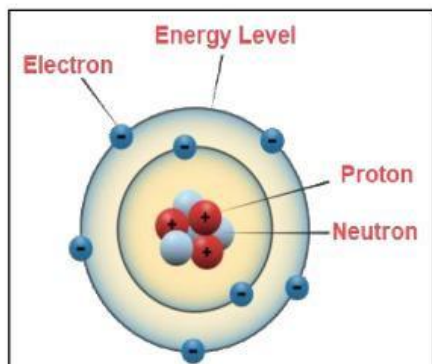
Discovered the Neutron.

Conceptualized specific "Energy Levels".

"Atomos" were small, hard particles, all made of the same material, but had different shapes and different sizes.

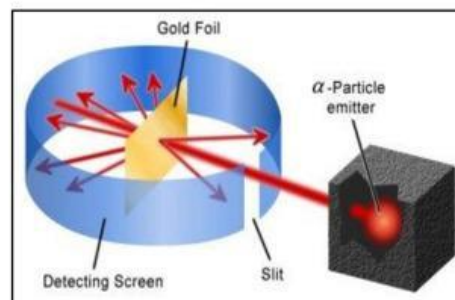
Discovered the Nucleus after doing the Gold Foil Experiment.

2. Select the correct name for each of the Models below :

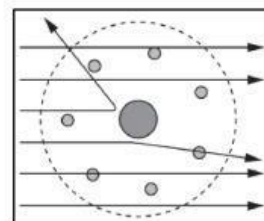


3. Ernst Rutherford's made two very important observations during his "Gold Foil Experiment" :

- 1) Most of the alpha-particles passed straight through the gold foil undeflected.
- 2) A few of the alpha particles were deflected at very large angles, and even bounced back.

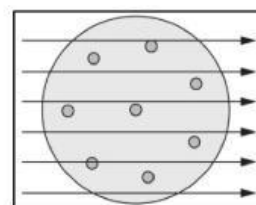


Look at the diagram to the right : Which of his Observations are described by this Diagram ?



Which Conclusion matches this Observation ?

Look at the diagram to the right : Which of his Observations are described by this Diagram ?



Which Conclusion matches this Observation ?

4. Drag & Drop each of the following items into the correct “Model” :

All electrons orbit the nucleus in specific Energy Levels.

Discovered that atoms of different Elements are different.

All electrons exist in Orbitals situated around the nucleus.

Particles with a “-” charge are embedded in a “+” charged sphere.

Plum Pudding Model

Planetary Model

Quantum Mech. Model

Solid Sphere Model