

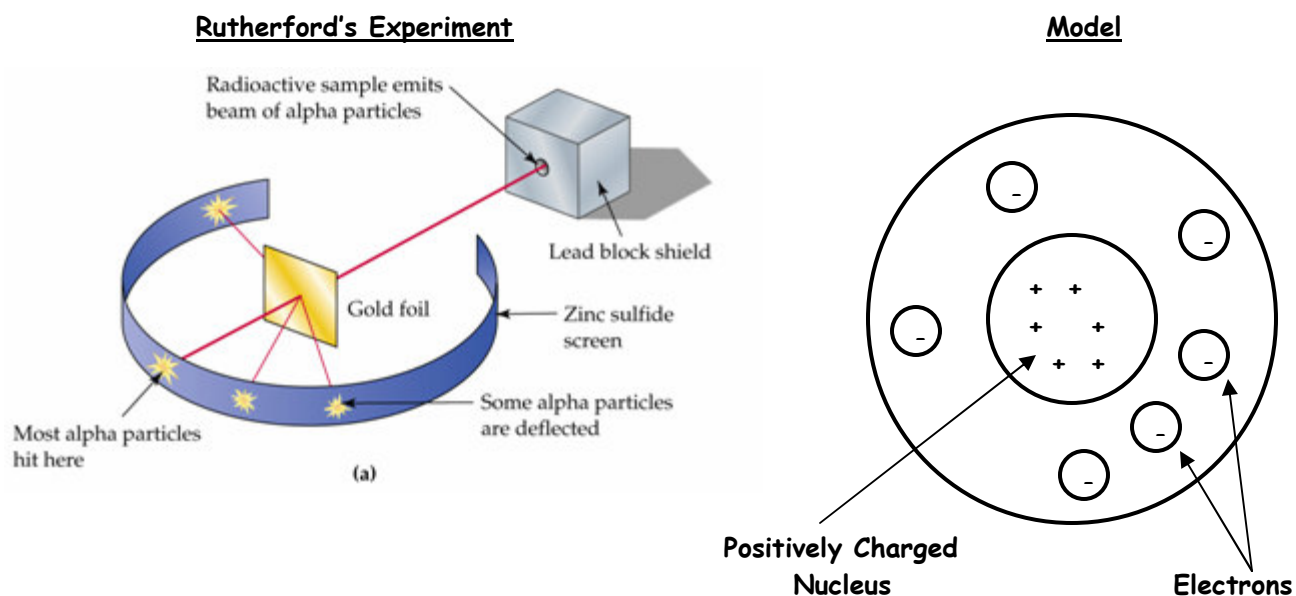
# Atoms - Building Blocks of Matter

## I. Structure of the Atom

### A. Dalton's Model

- All elements are composed of atoms. Atoms are invisible and indestructible particles.
- Atoms of the same element are exactly alike.
- Atoms of different elements are different.
- Compounds are formed by the joining of atoms of two or more elements

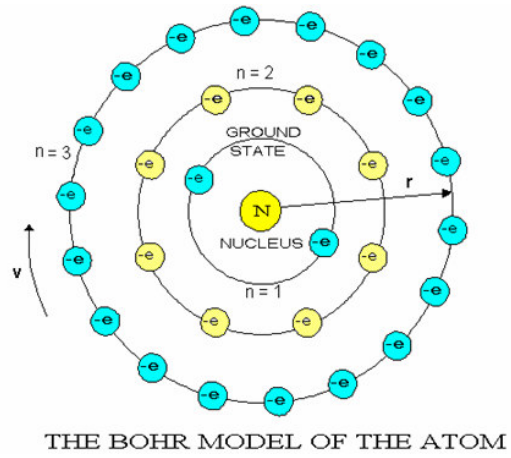
### B. Rutherford's Model



Rutherford proposed that an atom had a small, dense, positively charged center that repelled his positively charged particles. He called this center of the atom the "nucleus".

a. What other information did Rutherford discover from his experiment?

**C. Bohr's Model**



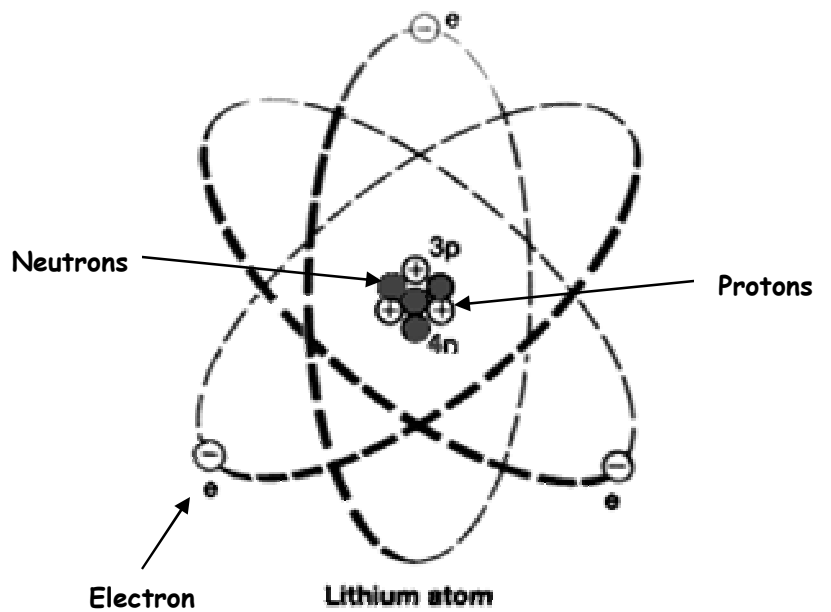
a. State an observation of the Bohr Model above.

b. Define: Bohr Model -

**II. The Structure of an Atom**

**A. Subatomic Particles**

a. State the locations of the subatomic particles.



b. Define:

1. Nucleus -

2. Protons -

3. Atomic Mass -

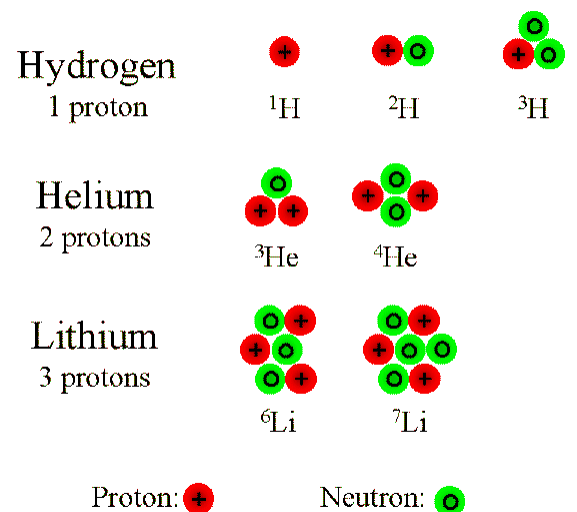
4. Neutrons -

5. Atomic Number -

6. Electron -

B. Isotopes

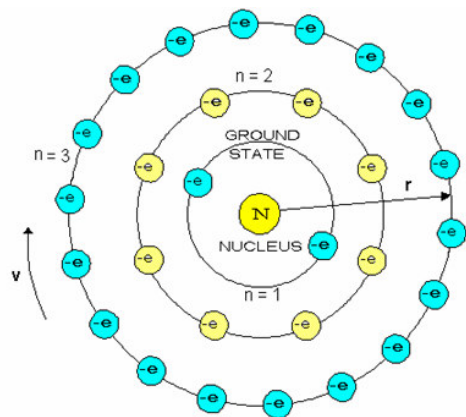
a. State an observation of the diagram below.



b. Define: Isotope -

C. The Electrons

a. State an observation of the atom diagram below



THE BOHR MODEL OF THE ATOM

b. Define: Energy Levels -

1<sup>st</sup> Energy Level = \_\_\_\_\_

2<sup>nd</sup> Energy Level = \_\_\_\_\_

3<sup>rd</sup> Energy Level = \_\_\_\_\_

D. Comparison of Subatomic Particles

Particle	Mass (amu)	Charge	Location
Proton			
Neutron			
Electron			