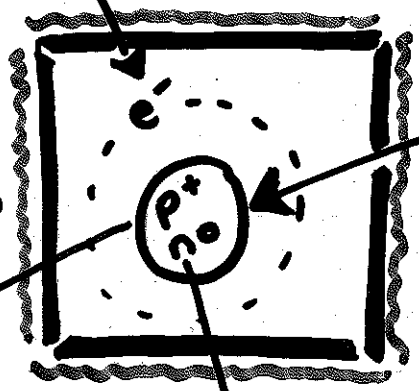
e^- = electron
n° = neutron
p^+ = proton

Electron Configuration
- e^- are found in shells/orbitals around the nucleus
- max # e^- per shell: 1st = 2, 2nd = 8, 3rd = 8

Electron
- negative charge
- no mass (negligable)
- can be gained/lost
- found in orbits/shells
- # e^- = # p^+ in atoms (neutral)
- # valence e^- (outer shell) determines properties

Bohr Diagram
- shows # e^- in each shell as well as # p^+ + # n° (p. 154-155)



Nucleus
- contains $p^+ + n^{\circ}$
- center
- $p^+ + n^{\circ}$ can not come or go
- where the mass is

Proton
- positive charge
- 1 amu each
- # protons determine element
- # p^+ can not change

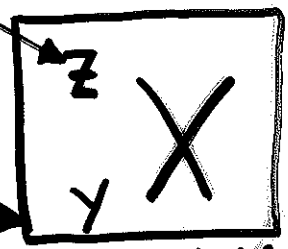
Neutron
- no charge
- 1 amu
- # n° can vary

Isotope
- same element (same atomic #, same # p^+)
- diff # n° ∴ diff. mass #

Atomic Mass
- average mass of isotopes by %
- what find on periodic table

Mass Number
= # p^+ + # n°
* different Isotopes have different mass #

Atomic
= # p^+



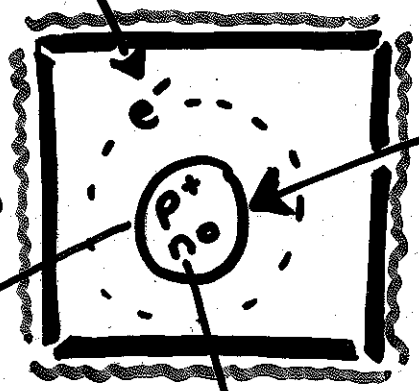
Element X

e⁻ = electron
n⁰ = neutron
p⁺ = proton

Electron Configuration
- e⁻ are found in shells/orbitals around the nucleus
- max # e⁻ per shell: 1st = 2, 2nd = 8, 3rd = 8

Electron
- negative charge
- no mass (negligable)
- can be gained/lost
- found in orbits/shells
- # e⁻ = # p⁺ in atoms (neutral)
- # valence e⁻ (outer shell) determines properties

Bohr Diagram
- shows # e⁻ in each shell as well as # p⁺ + # n⁰ (p. 154-155)



Nucleus
- contains p⁺ + n⁰
- center
- p⁺ + n⁰ can not come or go
- where the mass is

Proton
- positive charge
- 1 amu each
- # protons determine element
- # p⁺ can not change

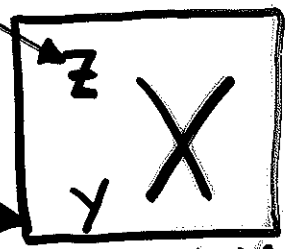
Neutron
- no charge
- 1 amu
- # n⁰ can vary

Isotope
- same element (same atomic #, same # p⁺)
- diff # n⁰ ∴ diff. mass #

Atomic Mass
- average mass of isotopes by %
- what find on periodic table

Mass Number
= # p⁺ + # n⁰
* different Isotopes have different mass #

Atomic
= # p⁺



Element X