

Title/Topic: ch. 2-1: Nature of matterDate: 9/9/16

Essential Questions:

- What 3 sub-atomic particles make atom?
- What is isotope?
- 2 main types of chem. bonds?

Connections/Questions:

1 What are parts of Atom?

2 What's the diff. b/w elem. el. + iso?

3 What's a compound?

4 What are diff. types of chem. Bonds?

Notes:

• Atoms

- prot. neut - nucleus
- elect. - outside

• Elements/Isotopes

- EL = only 1 type atom
- ISO = atom of el. w/ diff. # neutrons
- same # e^-
- Ex: ^{12}C ^{13}C ^{14}C

• Compounds

- chem. comb. of 2 or more el.

• Bonds

- IONIC - e^- transferred

- Covalent - e^- shared

- Van der Waals forces

- ↑ - unequal sharing of e^-
- = + and - regions in molecules
- ↓ attraction is weak force

Summary:

Atoms ^{are} made up of protons + neutrons (nucleus) + electrons (outside nuc.). Isotopes are atoms of elements w/ diff. # of neutrons. 2 types of chem. bonds are ionic (e^- transferred) + covalent (e^- shared).