

4.1 Atomic Theory & Bonding

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8:48 AM

Periodic Table

- Elements are listed according to increasing **atomic #**
- Row \Rightarrow **periods**
- Columns \Rightarrow **groups/families**
ex. Mg is in group 2 and period 3
- **metals** are on the left/middle
- **non-metals** on the right
- **metalloids** form a staircase

Element: only 1 type of atom

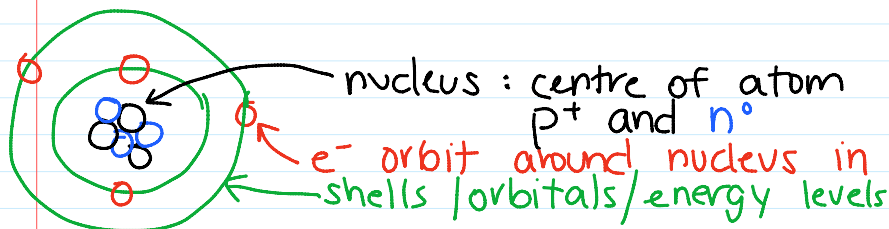
Molecule: 2 or more elements combined
ex. O_2

Compound: 2 or more **different** elements chemically combined
ex. H_2O

Atomic Structure

Atoms can be split into smaller, simpler particles called subatomic particles.

- \rightarrow Protons (p^+): **positive charge**
- \rightarrow Neutrons (n^0): **no charge**
- \rightarrow Electrons (e^-): **negative charge**



Element Information

14	\Rightarrow neutral	<u>atomic #</u> = # of protons = # of electrons
Si silicon	symbol name	
28.1	atomic mass	