

- Periods are rows, Groups are columns
- Atomic mass → weighted average of all isotopes
- Atomic structure → protons = atomic number; neutrons = atomic mass
- Oxidation numbers → group no., easiest path to an octet
- Electronic configuration → walk across from left to right
- HOFBrCl → diatomic elements

### s-orbitals

Alkali metals  
1+

### p-orbitals

(except H and He)

Halogens  
1-

Noble gases

1 1.0079  
**H**  
Hydrogen

3 6.941 4 9.0122  
**Li**  
Lithium

11 22.98977 12 24.312  
**Na**  
Sodium

19 39.0983 20 40.08  
**K**  
Potassium

37 85.47 38 87.62  
**Rb**  
Rubidium

55 132.9054 56 137.33  
**Cs**  
Cesium

87 (223) 88 226.0254  
**Fr**  
Francium

5 10.811 6 12.01115  
**B**  
Boron

13 26.98154  
**Al**  
Aluminum

14 28.0855 15 30.97376  
**C**  
Carbon

14 28.0855 15 30.97376  
**N**  
Nitrogen

14 28.0855 15 30.97376  
**O**  
Oxygen

14 28.0855 15 30.97376  
**F**  
Fluorine

14 28.0855 15 30.97376  
**Ne**  
Neon

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**Si**  
Silicon

14 28.0855 15 30.97376  
**P**  
Phosphorus

14 28.0855 15 30.97376  
**S**  
Sulfur

14 28.0855 15 30.97376  
**Cl**  
Chlorine

14 28.0855 15 30.97376  
**Ar**  
Argon

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**Si**  
Silicon

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**Ge**  
Germanium

14 28.0855 15 30.97376  
**As**  
Arsenic

14 28.0855 15 30.97376  
**Se**  
Selenium

14 28.0855 15 30.97376  
**Br**  
Bromine

14 28.0855 15 30.97376  
**Kr**  
Krypton

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Tin

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