

Chemistry Foundations

	proton	neutron	electron
charge	+	0	-
mass	1 amu	1 amu	0
location	nucleus	nucleus	orbit

Atomic Number - number of protons

e.g. Carbon ${}^6_6\text{C}$
 notation

Atomic Mass Number - #p + #n
 e.g. ${}^{12}_6\text{C}$ mass # $6 + 6 = 12$

$$12 - 6 = 6$$

mass protons neutrons

Isotopes - Similar atoms with different mass

e.g. Carbon-13 ${}^{13}_6\text{C}$ #n = $13 - 6 = 7$

Average atomic mass - 12.01 amu - carbon

Example - Find #p, n, e in an atom of ${}^{80}_{35}\text{Br}$

$\swarrow \quad \downarrow \quad \searrow$
 35 45 35
 └──────────┘
 neutral

Questions -

5 p.14 (answers p.39)

↑ choose
5

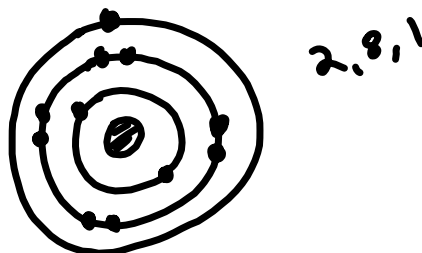
Periodic Table

Text - reference - p.15

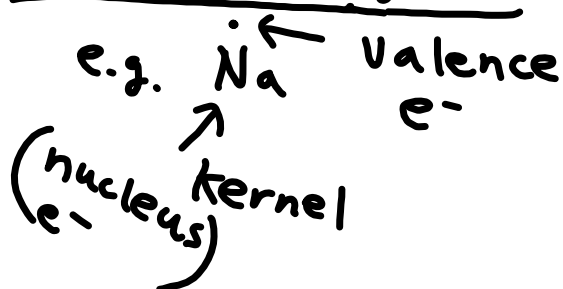
- metals (left)
- non-metals (right)
- metalloids (staircase)

Electron energy levels - orbits

e.g. "Na



Lewis Dot Diagram



Read text p.15-19

Bonding and Nomenclature