

Chapter 6 Vocab

COPY INTO NOTES, DO NOT WRITE ON THIS PAPER!

1. neutral

- when 1 positive charge(proton) cancels out 1 negative charge(electron) giving an atom or molecule a charge of 0

ex. $1 e^-$ (electron) + 1 proton = 0

ex. $2 e^-$ + 2 protons = 0

2. Charged

- when the atom or molecule has a greater amount of protons than electrons, or has a greater amount of electrons than protons, which gives it a positive or negative charge

ex. $1 e^-$ + 3 protons = $-1 + 3 = +2$

$6 e^-$ + 2 protons = $-6 + 2 = -4$

3. atomic number

- the number of protons in the nucleus of an atom

Element	Atomic #	Protons
Carbon	6	6 protons
Neon	10	10 protons
Calcium	20	20 protons

4. Atomic mass

- the number of protons plus the number of neutrons in the nucleus of the atom

Protons and Neutrons have more mass than 1 single electron. Electrons are super tiny.

5. Isotopes

- atoms of the same element that have the same number of protons, but a different number of neutrons in the nucleus

Isotopes	Atomic Mass	Protons	Neutrons
Carbon-12	12	6	6
Carbon-13	13	6	7
Carbon-14	14	6	8
Phosphorus-30	30	15	15
Phosphorus-31	31	15	16

6. radioactive

- an atom's nucleus that is not stable because too many extra neutrons are present
- the atom's nucleus slowly breaks apart releasing electrons and neutrons

7. stable

- a nucleus of an atom that stays together because the protons and neutrons are balanced

8. ion

- an atom with a negative or positive charge