

Name: _____

Unit 2: Intro to Chemistry



A. Life Depends on Chemistry

- a. _____ reactions take place in your _____ all the time.
 - i. Ex: Eating food, _____ oxygen
- b. The _____ keep you alive
 - i. Homeostasis

B. What is Matter?

- a. Anything that has _____ & _____
- b. All cells are made of matter but not all matter is made up of cells.
- c. All matter has _____ & chemical properties.

C. Physical vs. Chemical Properties

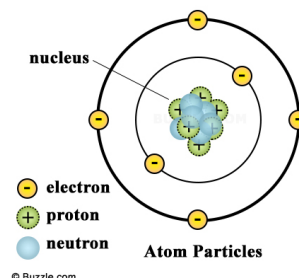
| Physical | Chemical |
|----------|----------|
| | |

D. Phases of Matter:

- a. Solid → _____ → Gas
- b. Change in physical shape but not in chemical composition!

E. Atoms

- a. Most basic unit of matter
- b. Atomic Structure - subatomic particles

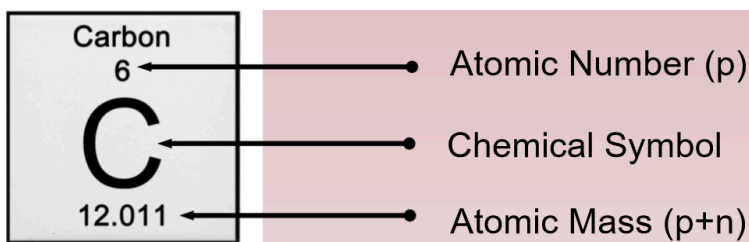


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| Protons | Neutrons | Electrons |
|---------|----------|-----------|
| | | |

F. Properties of Atoms

- Chemical Symbol:
- Atomic Number:
- Atomic Mass (Mass number):



****Hint****

Atomic Number = Number of Protons

Number of Protons = Number of Electrons

G. Elements

- Consist of _____ type of atom
- There are 118 elements → 94 occur naturally
- Elements cannot be separated into simpler substances.
- Are joined together to form _____.
 - Example: Salt (NaCl) & Water (H₂O)

H. Drawing Atoms:

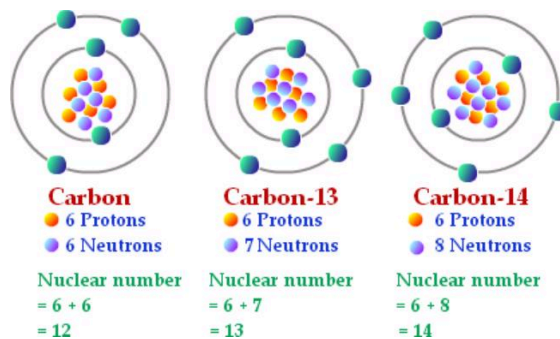
- 1st energy level holds **two** electrons.
- 2nd energy level holds **eight** electrons.

*****Must have eight electrons in the outermost shell to be stable!!*****

| | |
|--------------|----------------|
| | |
| Carbon 6p 6n | Hydrogen 1p 0n |

I. Isotopes:

a. _____



J. Chemical Compounds/Molecules

a. Most elements are found _____ with other elements.

b. Examples:

i. _____

ii. _____

c. These form through **bonds**!

K. Types of Bonds:

| Covalent | Ionic |
|----------|-------|
| | |

