

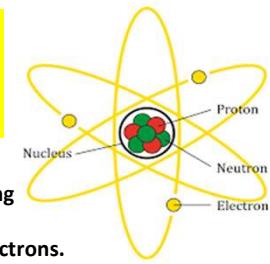
LESSON 2

STUDY OUTLINE OF CHEMISTRY

Vocabulary

Dr. NGUYEN MINH XUAN HONG
nmxhong@hcmuaf.edu.vn

Atom (n)
/'æt.əm/



The smallest unit of any chemical element, consisting of a positive nucleus surrounded by negative electrons. Atoms can combine to form a molecule.

→ **Atomic (adj)**

- Nguyên tố, nguyên tử

Metabolic (adj)
/mə'tæb.ə.lɪk/

- relating to metabolism (= the chemical processes within the body required for life)

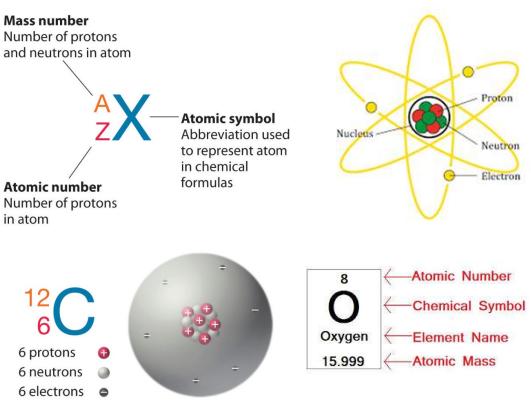
→ **Metabolize (v)** /mə'tæb.ə.laɪz/
→ **Metabolism (n)** /mə'tæb.ə.lɪ.zəm/

- trao đổi chất

Mass number
Number of protons and neutrons in atom

Atomic symbol
Abbreviation used to represent atom in chemical formulas

Atomic number
Number of protons in atom



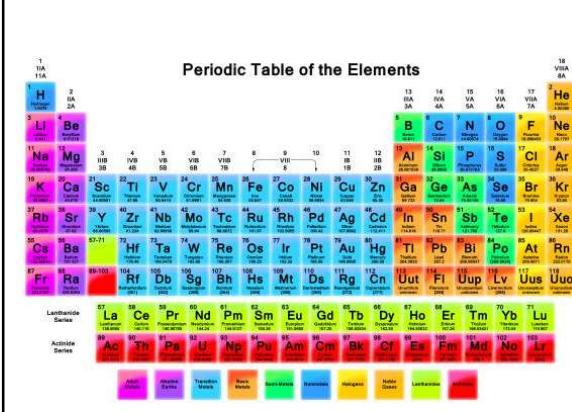
Nutrient (n)
/'nu:tri.ənt/

any substance that plants or animals need in order to live and grow

→ **Nutrition (n)**
→ **Nutritionist (n)**
→ **Nutritional (adj)**

- Dinh dưỡng

Periodic Table of the Elements



Isotope (n) /ɪsə.təp/

a form of an atom which has a different atomic mass from other forms of the same atom but the same chemical structure

→ radioactive isotope: chất đồng vị phóng xạ

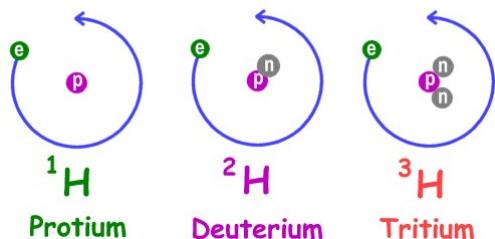
- chất đồng vị

Valence (v) /vələns/

• the ability of an atom to combine with other atoms, measured by the number of electrons it will lose, add, or share

- hoá trị

Three Isotopes of Hydrogen



Valence vs Core Electrons	
7: Nitrogen	2.5
Valence Electrons	Core electrons are the electrons other than valence electrons of the atom
Valence electrons are the electrons in an atom which participate in the chemical bond formation	Reside in inner shells
LOCATION IN ATOMS	Reside at the outer most shells
ENERGY REQUIREMENT	Energy required to remove valence electrons is comparatively low
EXAMPLE	In a nitrogen atom, there are 5 valence electrons
	Energy required to remove core electrons is very high
	In a nitrogen atom, there are 2 core electrons

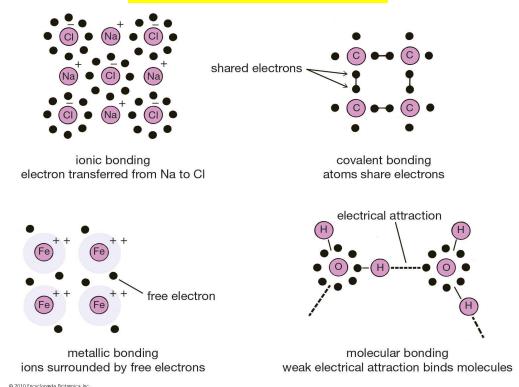
Configuration (n) /kən.fɪg.je'reɪ.ʃən/

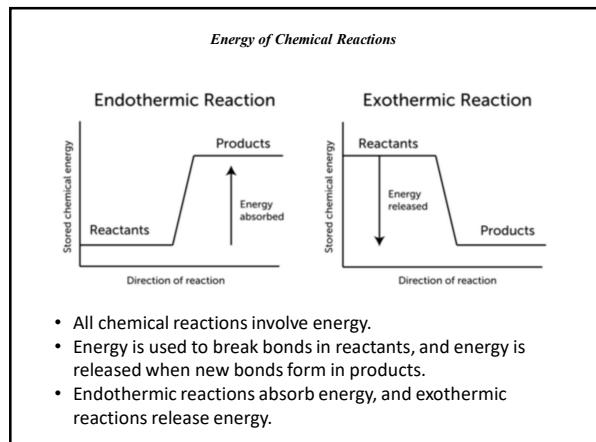
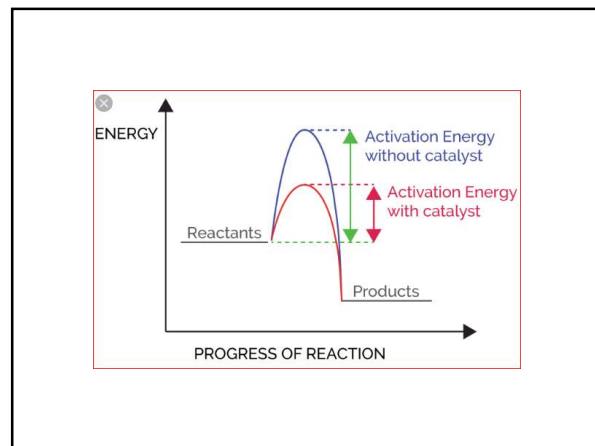
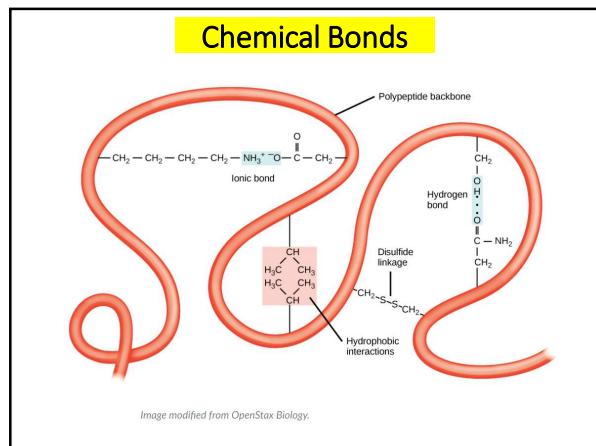
the particular arrangement of the parts of something or of a group of things

→ configure (v)

- Cấu hình

Chemical Bonds





Accelerate

(v)
/ək'sel.ə.eɪt/

- to happen or make something happen sooner or faster

Ex: They use special chemicals to accelerate the growth of crops.

→ = speed up

- Thúc đẩy

Collide

(v)
/kə'laid/

(esp. of moving objects) to hit something violently

Ex: He went off the road to avoid colliding with another car.

→ collision (n) /kə'lɪʒ.ən/ = accident, crash

- va chạm với, đâm vào, đụng vào