

Topic 6: Organic Chemistry
6.1: Intro to Organic Chemistry

AIM: _____

- **Organic Chemistry**

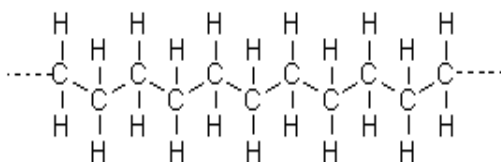
- the study of _____
- There are _____

- **Organic Compounds**

- When _____
 - _____

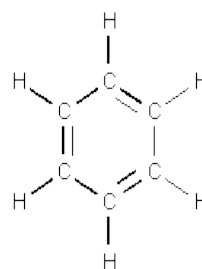
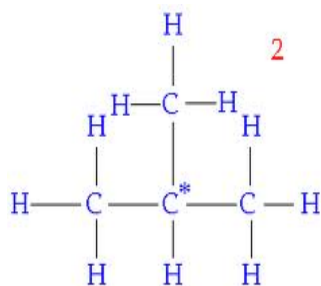
- **Bonding of Carbon Atoms**

- Carbon forms _____
 - Chains _____

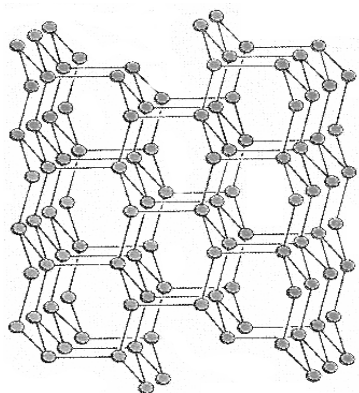


_____ Chain of Carbons

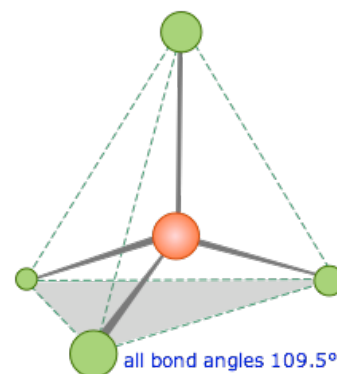
_____ Chain of Carbons



○ Diamond Network: _____



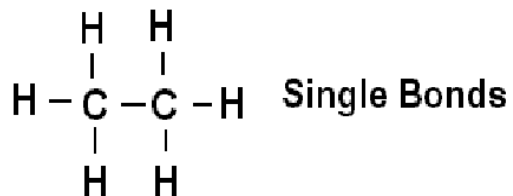
- **Ground State, Bonded and 3-D Carbon**



▪ **Carbon Bonding**

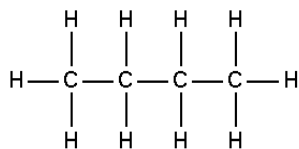
○ Carbon _____

○ Single _____



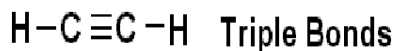
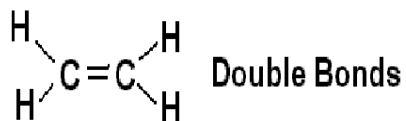
○ **Saturated Hydrocarbons:** _____

▪ Contains _____



○ Double _____

○ Triple _____



○ **Unsaturated Hydrocarbons:** _____

○ **Molecular and Structural Formula**

○ Molecular _____

○ C_3H_8 contains _____

○ Structural _____

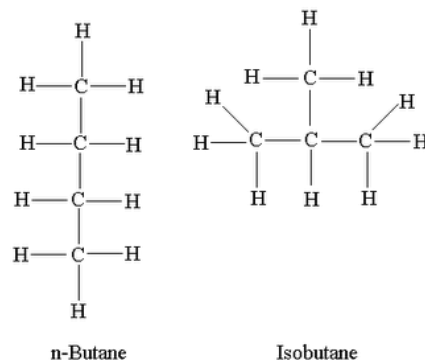
○ 2-D picture not 3-D picture

○ **Isomers**

○ Same _____

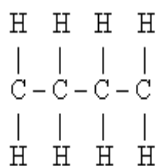
○ Same _____

○ Contain _____

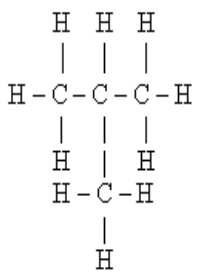


○ As the # of carbons increase so does _____

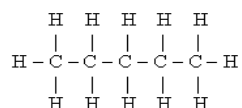
BUTANE:



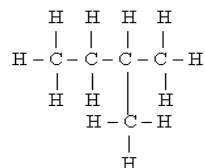
ISOBUTANE or METHYLPROPANE



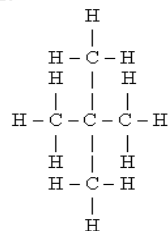
PENTANE:



2-METHYLBUTANE:



2, 2-DIMETHYLPROPANE:



Regents Questions

- All organic compounds must contain the element:
 - (1) Hydrogen
 - (2) Nitrogen
 - (3) Carbon
 - (4) Oxygen

- Which element is composed of atoms that can form more than one covalent bond with one another?
 - (1) Hydrogen
 - (2) Helium
 - (3) Carbon
 - (4) Calcium

- What is the total number of valence electrons in a carbon atom in the ground state?
 - (1) 12
 - (2) 2
 - (3) 6
 - (4) 4

- Which property is generally characteristic of an organic compound?
 - (1) Low melting point
 - (2) High melting point
 - (3) Soluble in polar solvents
 - (4) Insoluble in nonpolar solvent