Na(2,8,1) Cl(2,8,7)
Na^+(2,8) Cl^-(2,8,8)

NaCl

1. Single bond - H-H → (H:H)
2. Double bond - O=O
3. Triple bond - N(2,5) N(2,5)
   N≡N

✯ Reasons Behind this uniqueness?

• **TETRACOVALENCY** - It's valency is 4 & it can form compounds only by sharing of electrons.

Covalent Bond: The atomic no. of carbon is 6. its electronic configuration is (2,4) it requires 4 electrons to achieve the inert gas electronic configuration. but carbon form an ionic bond.

it could gain four electrons forming C^{4-} ion. it would be difficult for the nucleus with six protons to hold on to ten electrons.

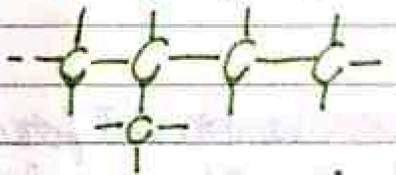
It could lose four electrons forming C^{4+} ion. it requires a large amount of energy to remove four electrons.

• **CATENATION** - The property of direct bonding between atoms of same element to form long chains, branches or ring structure.

• Carbon possesses this property:-

1. Straight chain -

2. Branched chain -



3. Closed chain -