

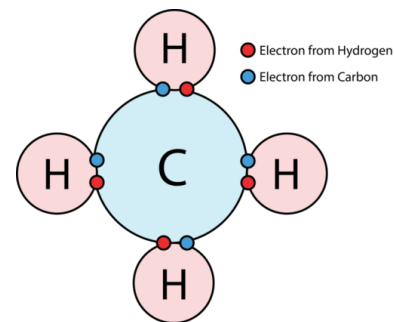
**Unit Overview – Bonding**      **Target grade for test:.....**

**You will learn about:**

- The three types of chemical bonds
- The structure and bonding of Carbon

**You will be able to:**

- Describe the bonding in the sodium chloride lattice using the correct terms, eg electrostatic forces of attraction.
- Recognise common substances that consist of small molecules from their chemical formula.



**Key Words**

Ions, metal, non-metal, electrostatic forces, high melting and boiling point, low melting and boiling point, sharing, transfer, electrons, intermolecular forces, delocalised electron, polymers, plastics, diamond, graphite, conductor, electricity.

**Key learning points**

Ionic bonding and compounds	
Properties of ionic bonding and simple molecules	
Covalent bonding	
Metallic bonding and alloys	
Particle theory and the three states of matter	
Covalent structures (giant and simple)	
Polymers and their properties	
Graphene and Fullerenes	

**Links to other subjects:**

SMSC: Understand and appreciate the impacts of human development on the environment and describe the effects that this is having.

Literacy: Describe observations in practical work. Explain the development of periodic table and the structure of the atom. Describe how reactivity and trends are linked to position in the periodic table.

Numeracy: Students should be able to translate data between diagrammatic and numeric forms. Visualise and represent 2D and 3D forms including two dimensional representations of 3D objects.