

Bangladesh International Tutorial
Subject: Chemistry Class VII

Fourth Week: 26-30th April

Worksheet 1

Fill in the formula of each compound in the table:

	Chloride, Cl ⁻	Bromide, Br ⁻	Oxide, O ²⁻
Sodium, Na ⁺	NaCl		
Magnesium, Mg ²⁺			
Aluminium, Al ³⁺			

Fill in the formula of each compound in the table:

	Hydroxide, OH ⁻	Nitrate, NO ₃ ⁻	Carbonate, CO ₃ ²⁻	Sulfate, SO ₄ ²⁻
Sodium, Na ⁺				
Magnesium, Mg ²⁺				
Aluminium, Al ³⁺				
Ammonium, NH ₄ ⁺				

Video explaining ionic and covalent bonding

https://www.youtube.com/watch?v=S_k0kr2eZSQ&t=88s

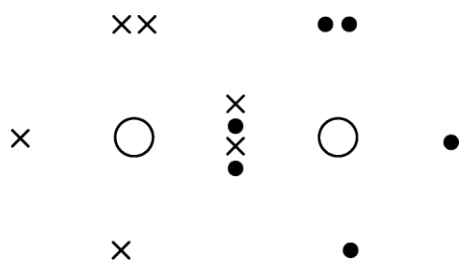
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Worksheet 2

1. What are the differences between ionic and covalent bonding?

In a double covalent bond the atoms share two pairs of electrons.

We can also show the double bond in a 'dot and cross' diagram:



2. Copy and complete:

Some atoms gain a _____ outer shell by forming d_____ c_____ bonds.

In the area of overlap we find _____ electrons as the atoms s_____ two p_____ of electrons with each other.

An _____ molecule (O_2) contains a _____ bond.

3. Draw the dot and cross diagrams of the following compounds:

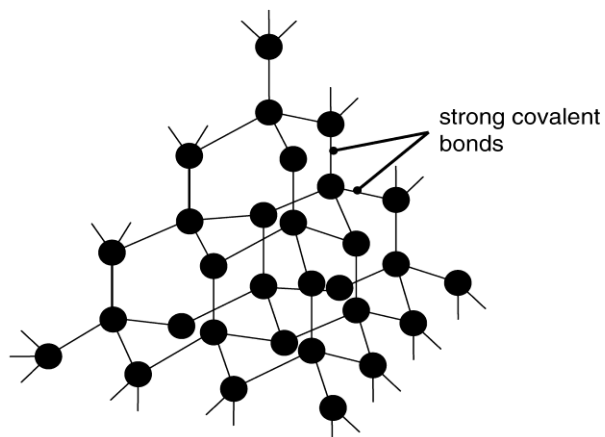
- CO_2
- Cl_2
- H_2O
- KI

4. Write down the properties of ionic compounds?

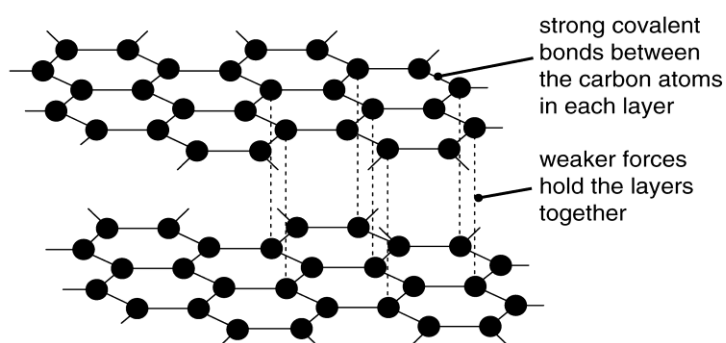
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Worksheet 3

Diamond



Graphite



1. Describe the structure of graphite.
2. Graphite and diamond are both allotropes of carbon. But diamond does not conduct electricity but graphite does- explain.
3. What are delocalised electrons.

Video explaining the structures of diamond and graphite

<https://www.youtube.com/watch?v=FeZiIR50XoY>