SAI International School
Lesson Notes
Subject–Chemistry, CLASS-X
Ch-1 Revision of Chemical Reactions and Equations

Module -6 Dt_03/04/2020

Instructions:

- ***Students you go through the mind map given based on the concepts covered in previous 5 modules.***
- ***Go through the concept mapping given***
- ***Finally solve various conceptual questions given based on the various concepts of the Chapter.***

MIND MAP

A] Chemical Changes-

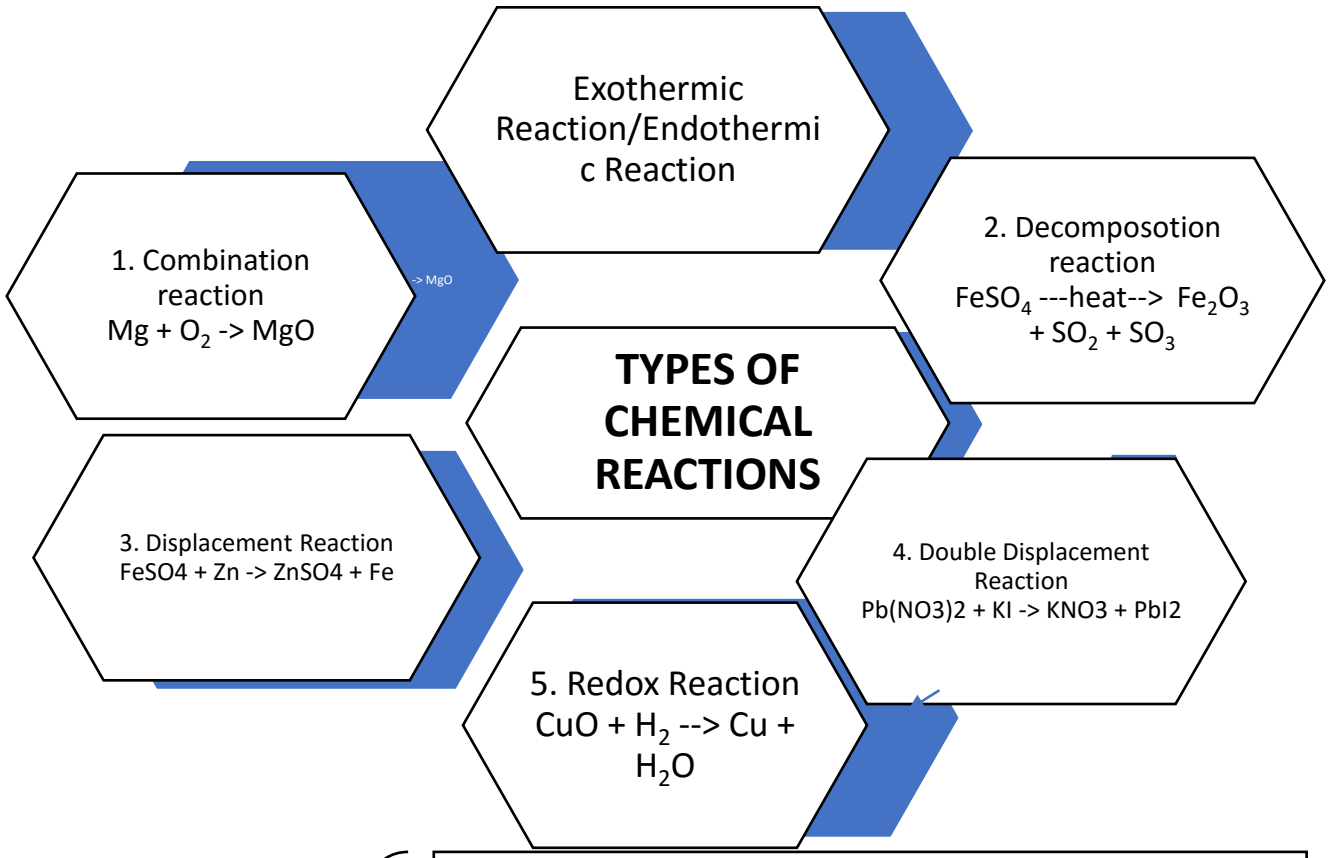
Observations during aChemical Reaction

1. Colour change
($CuSO_4$+Fe->$FeSO_4$+Cu)
blue green

2. Heat liberation
(Zn + HCl -> $ZnCl_2$ + H_2 + heat)

3. Liberation of a gas
(Zn + HCl -> $ZnCl_2$ + $H_{2(g)}$)

4.Change in state
[$H_{2\ (g)}$ + $O_{2(g)}$ -> $H_2O_{(l)}$]

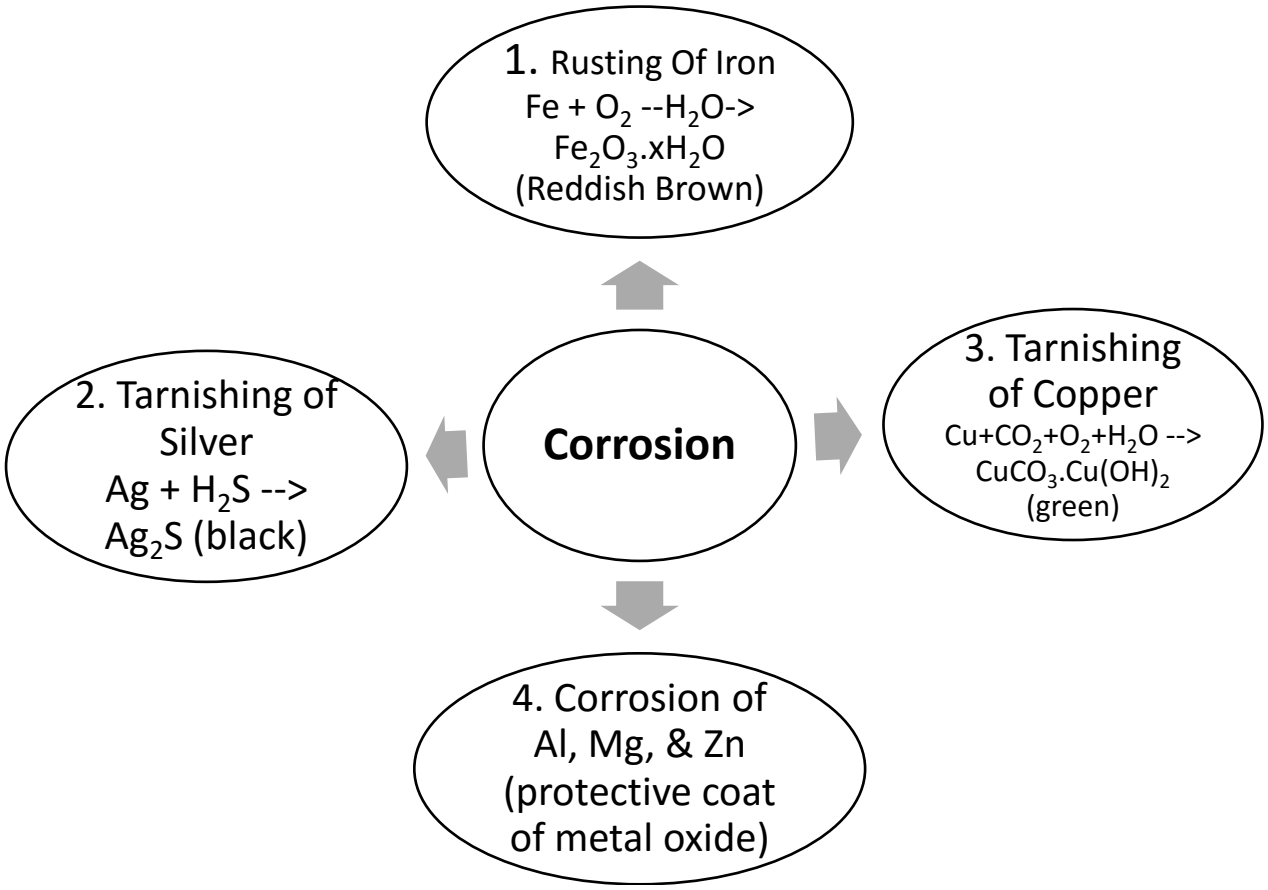


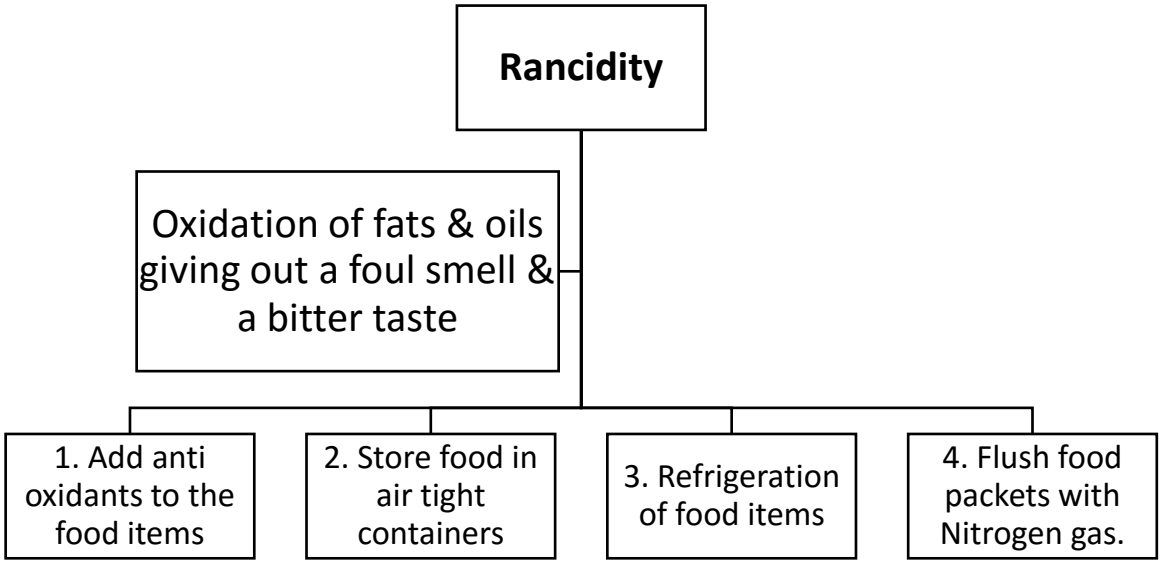
1. $C + O_2 \rightarrow CO_2$

- Chemical Equation - Symbolic represtation of a chemical reaction.

2. $2Mg + O_2 \rightarrow 2MgO$

- Balanced chemical Equation- the equation in which, the total number of atoms of each of the elements, are equal on both sides of the equation





Concept Mapping-Ch-1 (Chemical reactions & Equations)

A] Observations during aChemical Reaction	•1. Colour change
	•2. Heat liberation
	•3. Liberation of a gas
	•4.Change in state
	•5.Formation of precipitate
B] Balancing of Chemical equations	Hit & Trial Method
C]TYPES OF CHEMICAL REACTIONS	•1. Combination reaction -> Exothermic
	•2. Decomposotion reaction 2.a Thermal 2.b Electrolytic 2.c.Photolytic
	•3. Displacement Reaction
	•4. Double Displacement Reaction
	•5. Redox Reaction
D]Corrosion	•1. Rusting Of Iron
	•2. Tarnishing of Silver
	•3. Tarnishing of Copper
	•4. Corrosion of Al, Mg, & Zn
	5. Prevension of corrosion
E] Rancidity	Defination & Prevention

Assessment

Concept_Characteristics of Chemical Reaction

Q1.	State two characteristics of the chemical reaction which takes place when dilute sulphuric acid is poured over zinc granules	1
Q2	Mention two characteristics of the chemical reaction which occurs on adding potassium iodide solution to lead nitrate solution.	1
Q3	Give an example of chemical reaction showing the characteristics of change in temperature	1
Q4	Identify the characteristics of the chemical reaction which occurs on adding barium hydroxide solution to ammonium chloride solution.	1
Q5	Magnesium burns in air to form magnesium oxide. Which characteristic of chemical reaction is seen in the above reaction?	1

Concept_Balancing Chemical Equations

Q1.	Write the balanced chemical equation of the chemical reaction which takes place when dilute sulphuric acid is poured over zinc granules	1
Q2	Write the balanced chemical equation of the chemical reaction which occurs on adding potassium iodide solution to lead nitrate solution.	1

Q3	Why is it necessary to balance a chemical equation?	1
Q4	Correct and balance the following equation $Ca+H_2O \longrightarrow CaOH+H$	1
Q5	Magnesium burns in air to form magnesium oxide. Write the balanced chemical equation of the above chemical reaction.	1

Concept_Types of Chemical Reaction

Q1.	Give an example of double displacement reaction which is endothermic.	1
Q2	In the reaction $PbS+4H_2O_2 \longrightarrow PbSO_4+4H_2O$ i) Which substance is reduced? ii) Which substance is oxidised?	1
Q3	Is oxidation an exothermic or an endothermic reaction? Justify your answer.	1
Q4	$Mg+CuO \longrightarrow MgO+Cu$ Classify the above reaction into two types.	1
Q5	When a strip of reddish brown metal X is placed in a colourless salt solution YNO_3, a shiny grey deposit is found on metal X along with formation of blue coloured solution. i) Identify X ii) Name the salt YNO_3	1

Concept_Corrosion

Q1.	What is the special name given to corrosion of iron? Name any two objects/structures which are gradually damaged by the corrosion of iron.	1
Q2	Which type of chemical reactions is involved in corrosion of iron metal?	1
Q3	Define corrosion.	1
Q4	Why is corrosion not acceptable?	1
Q5	State an example of corrosion of a metal that produces positive effect.	1

Concept_Rancidity

Q1.	Which gas is flushed in the chips packets and why?	1
Q2	Define rancidity.	1
Q3	Which type of chemical reaction is responsible for causing rancidity?	1
Q4	State any two ways of preventing rancidity.	1
Q5	Give any two examples of rancidity.	1
Q6.	How will you identify the rancid food?	1