



**INDIAN SCHOOL DARSAIT  
DEPARTMENT OF CHEMISTRY  
WORKSHEET**

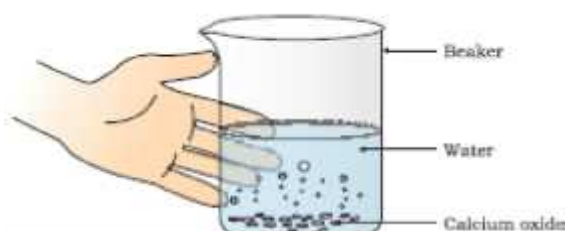


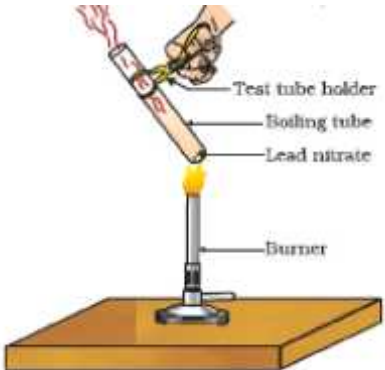
**Subject : CHEMISTRY      Chapter : Chemical Reactions      Date of Worksheet :30-4-17  
and Equations**

**Resource Person: Mr. Harikrishnan P**

**Date :**

**Name of the Student : \_\_\_\_\_      Class & Division : X----      Roll Number : -----**

1.	What is the need to balance a chemical equation?	1
2.	Define Rancidity.	1
3.	Which one is a chemical change? Electrolysis of water or sodium chloride exposed to sunlight?	1
4.	Write a balanced chemical equation to represent the following reaction. Carbon monoxide reacts with hydrogen gas at 340 atm. to form methyl alcohol.	1
5.	White silver chloride turns grey in sunlight. Why?	1
6.	Why are bags of chips flushed with nitrogen gas?	1
7.	Which is the brown coloured gas evolved when lead nitrate crystals are heated in a dry test tube?	1
8.	Write a balanced chemical equation to represent the following reaction: Iron reacts with steam to form Iron (II, III) oxide and hydrogen gas.	1
9.	Write any one example of an endothermic reaction and exothermic reaction.	1
10.		2

	<p>(a) Write a balanced chemical equation involved in the above reaction.</p> <p>(b) Write one use of the solution of the product formed in the above reaction.</p>	
11.	<p>What is the colour of <math>\text{FeSO}_4 \cdot 7\text{H}_2\text{O}</math> crystals? How does this colour change upon heating? Give balanced equation for the changes.</p>	2
12.	<p>A magnesium ribbon is burnt in oxygen to give a white compound 'X' accompanied by emission of light. If the burning ribbon is now placed in an atmosphere of nitrogen, it continues to burn and forms a compound 'Y'.</p> <p>(a) Write the chemical formulae of X and Y.</p> <p>(b) Write a balanced chemical equation, when X is dissolved in water.</p>	2
13.	<p>Observe the following figure and answer the questions.</p>  <p>a) Identify the type of reaction.</p> <p>b) Write a balanced chemical equation for the reaction.</p> <p>c) What are the gaseous products formed in this reaction</p>	2
14.	<p>A substance 'X', which is an oxide of a group 2 element, is used intensively in the cement industry. This element is present in bones also. On treatment with water it forms a solution which turns red litmus blue. Identify 'X' and also write the chemical reactions involved.</p>	2
15.	<p>What changes do you observe in the iron nails and colour of copper sulphate solution if the iron nails are dipped in <math>\text{CuSO}_4</math> solution for 15 minutes?</p>	2
16.	<p>A shiny brown coloured element 'X' on heating in air becomes black in colour. Name the element 'X' and the black coloured compound formed. Write the chemical equation for the reaction.</p>	2
17.	<p>A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed.</p>	2

	(i) Translate the above statement into a chemical equation. (ii) State two types for this reaction.	
18.	Differentiate between photochemical and thermal decomposition reactions.	2
19.	What is the chemical formula of rust? Give conditions for rusting.	2
20.	(a) Why do silver articles turn black when kept in the open for a few days? Name the phenomenon involved. (b) Name the black substance formed and give its chemical formula.	2
21.	An aluminium can is used to store Ferrous sulphate solution. It is observed that in few days holes appeared in the can. Explain the observation and write chemical equation to support your answer.	2
22.	Give two differences between displacement and double displacement reactions.	2
23.	Write a balanced chemical equation for each of the following reactions and also classify them.  (a) Lead acetate solution is treated with dilute hydrochloric acid to form lead chloride and acetic acid solution. (b) A piece of sodium metal is added to absolute ethanol to form sodium ethoxide and hydrogen gas.	3
24.	Aqueous solutions of lead nitrate and potassium iodide are mixed together. What change in colour will you observe? Write balanced equation for the reaction and the type of the reaction.	3
25.	What is Redox reaction? Identify the reducing agent and oxidizing agent in the following reactions.  (a) $\text{CuO} + \text{H}_2 \rightarrow \text{Cu} + \text{H}_2\text{O}$ (b) $\text{Fe}_2\text{O}_3 + 3\text{CO} \rightarrow 2\text{Fe} + 3\text{CO}_2$ (c) $4\text{NH}_3 + 5\text{O}_2 \rightarrow 4\text{NO} + 6\text{H}_2\text{O}$	3