



INDIAN SCHOOL DARSAIT
DEPARTMENT OF CHEMISTRY
WORKSHEET



**Subject : CHEMISTRY Chapter : Metals and
Non-metals Date of Worksheet : 28-8-17**

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Name of the Student : _____ Class & Division : X---- Roll Number : -----

1.	Name two metals which are best conductors and poor conductors of heat.	1
2.	A non –metal X exists in two different forms Y and Z. Y is the hardest substance known whereas Z is used as an electrode. Identify X,Y and Z	1
3.	Which are the most malleable metals?	1
4.	Different forms of an element with same chemical properties but with different physical properties are called allotropes. ----- and -----are two allotropes of carbon.	1
5.	Ionic compounds possess high melting point. Why?	1
6.	Ionic compounds do not conduct electricity in the solid state. Give reason.	1
7.	Sodium and potassium are kept immersed in kerosene oil. Why?	1
8.	Show the formation of calcium oxide by the transfer of electrons.	1
9.	Cinnabar is the ore of -----	1
10.	Carbonate and sulphide ores are usually converted into oxides during the process of extraction. Give reason.	1
11.	Which are the products formed at the anode and the cathode during the electrolysis of molten sodium chloride?	1
12.	The process of coating a thin layer of zinc over iron article is called-----	1
13.	What are amalgams?	1

14.	What is solder? What is it used for?	2
15.	Differentiate between mineral, ore and gangue.	2
16.	What is an alloy? What are the advantages of alloy formation?	2
17.	Give reasons for the following. (a) Sodium metal can be cut with a knife. (b) Gallium and Caesium melts when kept on your palm.	2
18.	What are amphoteric oxides? Give two examples. Also write equations that show the amphoteric nature of any one oxide.	2
19.	Name two metals that displace hydrogen from dilute acids. Write the chemical equations for the reaction.	2
20.	(a) Hydrogen gas is not evolved when a metal reacts with nitric acid. Why? (b) List any two metals that react with dilute nitric acid to evolve H ₂ gas.	2
21.	Write balanced chemical equations for the following reactions. (a) Calcium with water. (b) Iron with steam. (c) Aluminium with steam. (d) Potassium with water.	2
22.	Complete the following and name the cation and anion present in MgCl ₂ .	2
23.	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 the chemical equation to support your answer.	2
24.	Complete the following reactions which are involved in the extraction of Hg and Cu. $2\text{HgS(s)} + 3\text{O}_2\text{(g)} \xrightarrow{\text{Heat}}$ $2\text{HgO(s)} \xrightarrow{\text{Heat}}$ $2\text{Cu}_2\text{S} + 3\text{O}_2\text{(g)} \xrightarrow{\text{Heat}}$ $2\text{Cu}_2\text{O} + \text{Cu}_2\text{S} \xrightarrow{\text{Heat}}$	2

25.	List two differences between calcination and roasting.	2
26.	What is thermit reaction? Write one example with chemical equation and mention the uses of this reaction.	3
27.	Explain electrolytic refining of copper with the help of a labelled diagram.	3
28.	<p>A, B, and C are three elements which undergo chemical reactions according to the following equations.</p> $A_2O_3 + 2B \rightarrow B_2O_3 + 2A$ $3CSO_4 + 2B \rightarrow B_2(SO_4)_3 + 3C$ $3CO + 2A \rightarrow A_2O_3 + 3C$ <p>Answer the following questions with reasons :</p> <ul style="list-style-type: none"> (a) Which element is the most reactive ? (b) Which element is the least reactive ? (c) What is the type of reactions listed above ? 	3
29.	An element 'X' burns in oxygen to form an electrovalent compound XO. State the compounds you expect will form if the element X is made to combine with (i) chlorine and (ii) sulphur. Mention the chemical formula and nature of bond present in each case.	3
30.	<p>Give reasons.</p> <ul style="list-style-type: none"> (a) Most of the metals exist as oxides. (b) Sodium and potassium are never found in the native form. (c) Carbon is not used to reduce the oxides of sodium or aluminium. 	3