

## Chemistry Worksheet Grade X Metals and Non-Metals

1. Write three differences between metals and non-metals on the basis of chemical properties.
2. Name a reducing agent that may be used to obtain manganese from manganese dioxide.
3. Why is it that non-metals do not displace hydrogen from dilute acids?
4. (a) Arrange the following metals in the order of their decreasing activities: Aluminium, Gold, Sodium, Copper  
(b) Give chemical equation for the reaction of aluminium powder with manganese dioxide on heating.
5. Describe an activity to show that the rusting of iron occurs in the presence of air and moisture.
6. Write balanced equations for the reaction of
  - a. Aluminium when heated in air. Write the name of the product.
  - b. Iron with steam. Name the product obtained.
  - c. Calcium with water. why does calcium start floating in water?
7. Explain how mercury is extracted from its sulphide ore cinnabar. Give chemical equations of the reactions involved.
8. Give reasons for the following:
  - a. Metals can be given different shapes according to our needs.
  - b. Hydrogen is not evolved when a metal reacts with nitric acid.
9. Write an example of each:
  - a. A metal which is so soft that it can be cut with a knife and a non-metal which is the hardest natural substance.
  - b. A metal and a non-metal which exists as liquid at room temperature.
10. Name two solid metals and two solid non-metals along with their symbols.
11. Compose an activity to arrange Ca, Mg and Fe metals in the decreasing order of reactivity with water. Write suitable balanced chemical equation and draw diagrams.
12. Name two metals that start floating after sometime when immersed in water and explain why they do so.
13. Define the following:
  - a. Calcination
  - b. Froth floatation
  - c. Leaching
  - d. Corrosion.
14. Give reasons for the following:
  - a. Aluminium oxide is considered as an amphoteric oxide.
  - b. Ionic compounds conduct electricity in molten state.
15. Name the following:
  - i. A metal, which is preserved in Kerosene.
  - ii. A metal, which can melt while kept on palm.
  - iii. A metal, which is a poor conductor of heat.