Education with Fun

Name: _____ Date: _____

Materials: Metals and Non-Metals

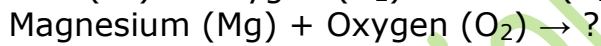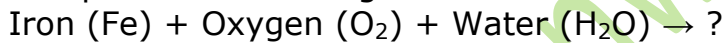**Q1.** Why can't copper displace zinc from its salt solution?

Ans. _____

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Q2. Can you store lemon pickle in an aluminium utensil? Explain.

Ans. _____

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Q3. Complete the following reactions of iron and magnesium with oxygen.
Iron (Fe) + Oxygen (O_2) + Water (H_2O) → ?
Magnesium (Mg) + Oxygen (O_2) → ?

Ans. _____

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Q4. Explain reaction between sulphur and oxygen. What is the nature of its oxide formed?

Ans. _____

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Q5. Can copper displace iron from iron sulphate solution? Give reason.

Ans. _____

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Materials: Metals and Non-Metals

Q1. Why can't copper displace zinc from its salt solution?

Ans. A more reactive metal can replace a less reactive metal from its compound in aqueous solution. Zinc is more reactive than copper. Therefore, copper cannot displace zinc from its salt solution.

**Q2.** Can you store lemon pickle in an aluminium utensil? Explain.

Ans. Lemon pickle cannot be stored in aluminium utensils because lemon pickle contains acids, which can react with aluminium (metal) liberating hydrogen gas. This can lead to the spoiling of the pickle.

Q3. Complete the following reactions of iron and magnesium with oxygen.
Iron (Fe) + Oxygen (O_2) + Water (H_2O) → ?
Magnesium (Mg) + Oxygen (O_2) → ?

Ans. Iron (Fe) + Oxygen (O_2) + Water (H_2O) → Iron oxide (Fe_2O_3)

Magnesium (Mg) + Oxygen (O_2) → Magnesium oxide (MgO)

Q4. Explain reaction between sulphur and oxygen. What is the nature of its oxide formed?

Ans. When sulphur burns in air, it combines with oxygen of air to form sulphur dioxide (which is an acidic oxide).

Sulphur(S) + Oxygen(O_2) → Sulphur dioxide(SO_2)
　　　　　　　　　　　　　　　(An acidic oxide)
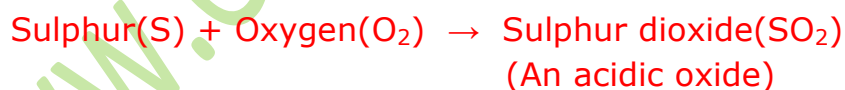
Q5. Can copper displace iron from iron sulphate solution? Give reason.

Ans. A more reactive metal can replace a less reactive metal from its compound in aqueous solution. Copper lies below iron in the reactivity series i.e. iron is more reactive than copper. Therefore, copper cannot displace iron from its salt solutions.