

**an International CBSE Fingerprint School  
Coimbatore**

**Lesson - 8**

**Physical and Chemical changes**

**I. Word Focus**

1. Effervescence
2. Galvanization
3. Rusting
4. Reactants
5. Exothermic
6. Endothermic
7. Oxidation
8. Reduction

**II. Answer the following**

**1. Differentiate between physical and chemical changes.**

<b>Physical change</b>	<b>Chemical change</b>
1. Physical changes are mostly reversible.	1. Most of the chemical changes are irreversible.
2. No new substances are formed.	2. One or more new substances are formed.
3. It is a temporary change.	3. It is a permanent change.
4. The substances retain its chemical properties.	4. The new substances formed have different properties from the original substances.
5. Eg: Ice → water → steam	5. Paper →ashes

2. Why are most physical changes reversible?

Physical changes are reversible because:

- They include changes in a substance's physical attributes such as condition, shape, size, colour, and so on.
- No new substances are formed.
- For example - When we heat water, it turns into water vapour, which then turns back into the water when we cool or condense it.

3. What are the conditions required for rusting of iron.

The presence of air (oxygen) and moisture (Water) are the essential conditions for rusting to occur.

4. Is galvanization a physical or chemical change. Support your answer.

Galvanization is a physical change.

**Reason:**

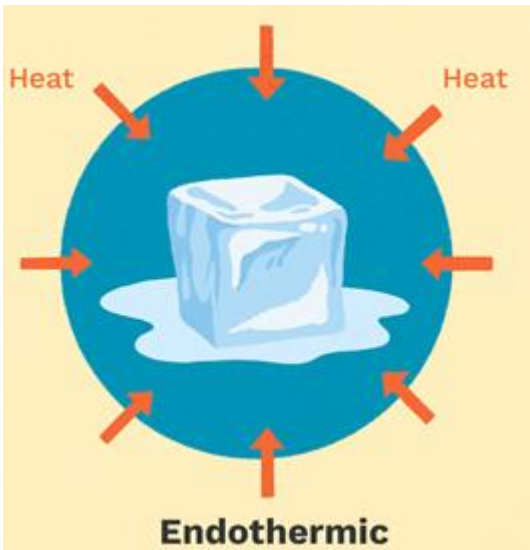
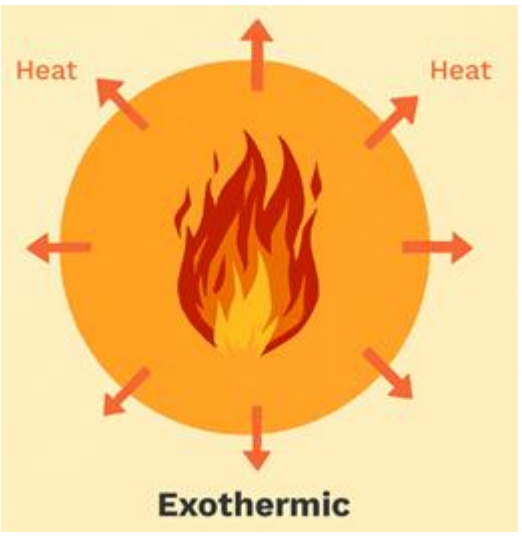
No new substance is formed in this process.

Just a coating of zinc is applied over iron.

5. How do you know when a chemical change has occurred?



6. Distinguish between endothermic and exothermic reaction.

<b>Endothermic reaction</b>	<b>Exothermic reaction</b>
Energy is taken in from the surroundings	Energy is given out to the surroundings.
Heat energy is absorbed during this reaction.	Heat energy is released during this reaction.
Release of heat is shown by writing <b>+ heat</b> on the RHS of the equation .	Release of heat is shown by writing <b>- heat</b> on the RHS of the equation.
	
This reaction is cooler than the surroundings.	This reaction is hotter than the surroundings.
Eg: Frying Eggs Baking Bread Evaporation of Water Melting ice cubes	Eg: Combustion Respiration Nuclear fission Detonation

III. CASE STUDY

The rustless wonder: A case study on iron pillar of Delhi

DO NOT STICK PRINT OUTS. RESEARCH ON THE TOPIC AND WRITE IN YOUR OWN WORDS