

1. Which of the following is a physical change?

- A. Rusting of iron
- B. Burning of magnesium ribbon
- C. Melting of ice
- D. Formation of calcium carbonate (C)

Explanation : Melting of ice changes only the state of water; no new substance is formed, so it is a physical change.

2. Formation of a milky appearance in lime water indicates the presence of which gas?

- A. Oxygen
- B. Carbon dioxide
- C. Hydrogen
- D. Nitrogen (B)

Explanation : Lime water turns milky when carbon dioxide reacts with calcium hydroxide to form calcium carbonate.

3. Which of the following changes cannot be reversed?

- A. Melting ice
- B. Evaporation of water
- C. Chopping vegetables
- D. Condensing steam (C)

Explanation : Chopped vegetables cannot be brought back to their original size and shape.

4. The minimum temperature at which a substance catches fire is called:

- A. Melting point
- B. Boiling point
- C. Ignition temperature
- D. Freezing point (C)

Explanation : A substance begins to burn only after it reaches its ignition temperature.

5. Burning of a candle is an example of:

- A. Only physical change
- B. Only chemical change
- C. Both physical and chemical change
- D. Neither physical nor chemical change (C)

Explanation : Wax melting is a physical change; burning of vapour is a chemical change.

6. Which component of air supports combustion?

- A. Carbon dioxide
- B. Nitrogen
- C. Oxygen
- D. Water vapour (D)

Explanation : A candle extinguishes without oxygen; oxygen is essential for combustion.

7. Rusting of iron forms which new substance?

- A. Calcium carbonate
- B. Magnesium oxide
- C. Iron oxide
- D. Sodium chloride (D)

Explanation : Rust is iron oxide, formed when iron reacts with oxygen and moisture.

8. Erosion is mainly what type of change?

- A. Chemical change
- B. Physical change
- C. Reversible change
- D. No change (B)

Explanation : Erosion involves breaking and carrying away of rocks and soil by wind or water—a physical process.

9. Which combination produces carbon dioxide gas?

- A. Vinegar + common salt
- B. Lemon juice + water
- C. Baking soda + vinegar
- D. Sugar + water (C)

Explanation : Vinegar reacts with baking soda to produce carbon dioxide, causing fizzing.

10. Weathering of rocks involves:

- A. Only physical changes
- B. Only chemical changes
- C. Both physical and chemical changes
- D. No change in rocks (C)

Explanation : Rocks break physically and also react chemically with water/air, causing weathering.