

Exercise question answer

Chapter-2

Class-8

1) Define :

- a) A physical change .
- b) A chemical change .

Answer:-

a) A physical change is a temporary change, in which no new substance is formed and the chemical composition of the original substance remains the same, even though some of its physical properties like colour, state, shape, size etc. may change.

b) A chemical change is a permanent change in which new substance(s) is /are formed whose chemical composition and physical and chemical properties are completely different from those of the original substance(s).

2) Classify the following as a physical or a chemical change :

- a) Drying of wet clothes .
- b) Manufacture of salt from sea water.
- c) Butter getting rancid .
- d) Boiling of water .
- e) Burning of paper .
- f) Melting of wax .
- g) Burning of coal .
- h) Formation of clouds.
- i) Making of sugar solution .
- j) Glowing of an electric bulb .
- k) Curdling of milk .

Answer :

- a) Physical change .
- b) Physical change .
- c) Chemical change .
- d) Physical change .
- e) Chemical change .
- f) Physical change .
- g) Chemical change.
- h) Physical change .
- i) Physical change .
- j) Physical change .
- k) Chemical change.

3) Fill in the blanks :-

- a) The process of a liquid changing into a solid is called.....
- b) A change which alters the composition of a substance is known as achange.
- c) There is no change in theof the substance during a physical change .
- d) The reaction in which energy is evolved is called.....

Answer :-

- a) Freezing .
- b) Chemical .
- c) Composition .
- d) Exothermic reaction.

4) Give reason :-

- a) Freezing of water to ice and evaporation of water are physical changes .
- b) Burning of a candle is both a physical and a chemical change .
- c) Burning of paper is a chemical change .
- d) Cutting of a cloth piece is a physical change , though it cannot be reversed.

Answer :-

a) In both cases the changes of states of matter taking place that is, change of water to ice means change of liquid state into solid state and evaporation of water means change of liquid state to gas state, but the composition of the substances remain same.

b) When a candle is lighted, some of the solid wax first melts and turns into liquid, then it burns to produce a flame. New substances CO_2 and H_2O vapour are formed along with the evolution of light and heat energy . This shows a chemical change.

When some of the molten wax drops on the floor, it again solidifies which shows a physical change.

c) Burning of paper is a chemical change because a new substance ash is formed whose chemical composition and properties is completely different from the original one.

d) Because the properties and composition of the cloth piece remain same, the only change of size and shape of the cloth .

5) Give four differences between physical and chemical changes .

Answer :-

Physical change	Chemical change
1) Change is temporary .	1) Change is permanent .
2) Change can be reversed by simple methods .	2) Change cannot be reversed by simple methods.
3) Heat or light , may or may not be given out or Consumed.	3) Heat or light, or both, are given out or consumed.
4) No new substance is formed. There is change only in physical properties .	4) New substances are formed, with entirely different properties.