



CHEMISTRY

BOOKS - ICSE

PHYSICAL AND CHEMICAL CHANGES

**Check Your Progress Write True Or False Correct
The False Statements**

1. Give reason : Stretching a rubber band is a physical change.



[Watch Video Solution](#)

2. The ripening of fruits is a physical change.



[Watch Video Solution](#)

3. Energy is either absorbed or evolved during a chemical change.



[Watch Video Solution](#)

4. Boiling (vaporization) refers to the change of a liquid into its solid state at its boiling point.



[Watch Video Solution](#)

5. The total mass of the substances involved in a chemical change remains constant.



[Watch Video Solution](#)

Exercise Tick The Most Appropriate Answer

1. Which of the following is/are characteristic(s) of a physical change?

A. temporary change

B. reversible

C. formation of no new substance

D. all of the above

Answer:



Watch Video Solution

2. Which of the following is not a chemical change?

A. rusting of iron

B. cooking of food

C. digestion of food

D. freezing of water

Answer:



Watch Video Solution

3. Which of the following is a chemical change?

A. burning of magnesium ribbon in air

B. freezing of water

C. evaporation of water

D. tearing of paper

Answer:



Watch Video Solution

4. Which of the following refers to the change of state from solid to liquid?

A. boiling

B. freezing

C. melting

D. evaporation

Answer:



Watch Video Solution

5. Which form of energy is absorbed in photosynthesis?

A. heat

B. sound

C. electrical

D. light

Answer:



Watch Video Solution

Exercise Fill In The Blanks

1. A _____ change is temporary and reversible



[Watch Video Solution](#)

2. In a chemical change, the original substance loses its own _____ and properties.



[Watch Video Solution](#)

3. A _____ change is generally associated with the evolution or absorption of energy.



[Watch Video Solution](#)

4. When a chemical change takes place with the evolution of heat energy, the change is said to be _____



[Watch Video Solution](#)

5. Water while freezing releases _____ energy.



[Watch Video Solution](#)

Exercise Write True Or False Correct The False Statements

1. In a physical change, the chemical composition of the original substance is altered.



[Watch Video Solution](#)

2. True or False: The melting of wax is a physical change.



[Watch Video Solution](#)

3. True or False: All changes of state are physical changes.



[Watch Video Solution](#)

4. Condensation refers to the change of state from liquid to gas on cooling.



[Watch Video Solution](#)

5. True or False: A chemical change is permanent and irreversible.



[Watch Video Solution](#)

6. State whether the given statement is true or false? Mass is created during a chemical change.



Watch Video Solution

Exercise Match The Columns

1. Classify the following changes into physical and chemical changes.

1. Melting of wax
2. Magnetization of iron
3. Digestion of food
4. Burning of a candle
5. Sublimation of iodine
6. Rusting of iron
7. Stretching a rubber band
8. Burning of a piece of magnesium ribbon



[Watch Video Solution](#)

Exercise Answer The Following In Short

1. What is a physical change?



[Watch Video Solution](#)

2. What is a chemical change ? Give two examples of chemical change.



[Watch Video Solution](#)

3. What is an endothermic change?



[Watch Video Solution](#)

4. What is an exothermic change?



[Watch Video Solution](#)

5. What happens to the intermolecular force of attraction between the molecules in a

change of state from solid to liquid?



[Watch Video Solution](#)

6. What happens to the intermolecular space between the molecules in a change of state from liquid to solid?



[Watch Video Solution](#)

[Exercise Answer The Following In Detail](#)

1. Write the characteristics of physical changes.



[Watch Video Solution](#)

2. Write the characteristics of chemical changes.



[Watch Video Solution](#)

3. Give the main differences between physical changes and chemical changes.



Watch Video Solution

4. Explain the change of heat energy in a physical change.



Watch Video Solution

5. Explain energy changes in a chemical change.



[Watch Video Solution](#)

Think And Answer

1. Sublimation of camphor is a physical change. Explain.



[Watch Video Solution](#)

2. The burning of paper is a chemical change.

Why?



Watch Video Solution

3. True or False: The melting of wax is a physical change.



Watch Video Solution

4. The burning of a piece of magnesium ribbon in air is a chemical change. Explain.



[Watch Video Solution](#)

Test Yourself 1 True Or False

1. Growth of a plant is a slow process



[Watch Video Solution](#)

2. Inflating a balloon is an irreversible change



[Watch Video Solution](#)

3. Ripening of fruits is a chemical change



[Watch Video Solution](#)

4. Occurrence of an earthquake is a periodic change.



[Watch Video Solution](#)

5. Water freezing into into ice is a physical change.



[Watch Video Solution](#)

Test Yourself 2 Match The Following

1. Match the following

- | | |
|------------------------------------|----------------|
| 1. Iron is exposed to moist air | a. Curdling |
| 2. Lemon juice is added to milk | b. Sublimation |
| 3. Ice is kept at room temperature | c. Rusting |
| 4. Camphor is heated | d. Melting |



Watch Video Solution

Exercise A Multiple Choice Question

1. Rusting of iron is a
- A. Physical change
 - B. periodic change
 - C. chemical change
 - D. fast change

Answer: C



Watch Video Solution

2. Periodic changes are the ones which take place

A. very slowly

B. very fast

C. suddenly

D. after fixed interval of time

Answer: D



3. Melting of ice into water is a

- A. chemical change
- B. physical change
- C. irreversible change
- D. periodic change

Answer: B



4. On heating, camphor changes into vapour form. It is a following type a change.

A. temporary and irreversible

B. temporary and chemical

C. physical and reversible

D. chemical and reversible

Answer: C



Watch Video Solution

5. Which of the following is a chemical change ?

- A. curdling of milk
- B. evaporation of water
- C. melting of ice cream
- D. deflating ballon

Answer: A



Watch Video Solution

1. Iron and rust have the same properties



[Watch Video Solution](#)

2. Sublimation is a chemical change



[Watch Video Solution](#)

3. True or False: A chemical change is permanent and irreversible.





[Watch Video Solution](#)

4. Tornado can be called a periodic change.



[Watch Video Solution](#)

5. Growth of a seeding into a plant is a physical change.



[Watch Video Solution](#)

Exercise C Fill In The Blanks

1. Changes in which new substances are formed are called Changes.



[Watch Video Solution](#)

2. Rusting of iron is a Change while freezing of water is a Change.



[Watch Video Solution](#)

3. Temporary and reversible changes are called
..... Changes



Watch Video Solution

4. The reddish brown substance formed on
iron is called



Watch Video Solution

5. Sublimation is a change in a substance from state to..... State.



[Watch Video Solution](#)

Exercise D Match The Following

1. Match the following

- | | |
|--|---------------------|
| 1. When vinegar is added to milk | (a) Periodic change |
| 2. Phases of moon | (b) Chemical change |
| 3. Formation of iron oxide on iron objects | (c) Sublimation |
| 4. Solid state of a substance changing directly to gaseous state | (d) Rusting |



[Watch Video Solution](#)

Exercise E Name The Following

1. Changing of solid ice into water.



[Watch Video Solution](#)

2. Changing of camphor directly from solid into vapour form.



[Watch Video Solution](#)

3. A change that occurs after a fixed interval of time.



Watch Video Solution

4. A change which is irreversible and leads to formation of new substances.



Watch Video Solution

5. Change in milk on adding lemon juice.



[Watch Video Solution](#)

Exercise F Diagram Based Questions

1. Name the process involved in figures (a), (b) and (c).



(a)



(b)



(c)



[Watch Video Solution](#)

2. Which of the following changes are the chemical changes?



(a)



(b)



(c)



[Watch Video Solution](#)

Exercise G Differentiate Between The Following

1. Differentiate between

Slow and fast changes



Watch Video Solution

2. Differentiate between

Reversible and irreversible changes



Watch Video Solution

3. Differentiate between

Periodic and non-periodic changes



Watch Video Solution

4. Differentiate between

Natural and man-made changes



[Watch Video Solution](#)

5. Differentiate between

Physical and chemical changes



[Watch Video Solution](#)

Exercise H Short Answer Questions

1. Why is melting of ice called a physical change?



[Watch Video Solution](#)

2. Is rusting of iron a reversible change?



[Watch Video Solution](#)

3. Give two features of a physical change.



[Watch Video Solution](#)

4. What type of changes are called periodic changes?



[Watch Video Solution](#)

5. Define sublimation.



[Watch Video Solution](#)

6. If milk changes into curd, is it a chemical, reversible or a fast change ?



[Watch Video Solution](#)

7. Why is rotting of eggs considered a chemical change?



[Watch Video Solution](#)

8. Why is sublimation considered a physical change and not a chemical change ?



[Watch Video Solution](#)

9. What will happen to milk if little bit of lemon juice is added to it?



Watch Video Solution

10. Give one example each of a slow change and a fast change.



Watch Video Solution