

Changes Around Us

Fill in the blanks: -

1. Most physical changes can be _____.
2. Most chemical changes are _____ and _____.
3. _____ action helps in moving the liquid wax up the wick.
4. During a chemical change, a _____ is formed.
5. The process by which a gas changes directly into a solid is called _____.
6. During rusting, iron reacts with _____ and _____ to form iron oxide.
7. When a candle burns, the wax undergoes a process called _____, producing _____ and water vapor.

Define the following: -

1. Reversible change
2. Irreversible change
3. Physical change
4. Chemical change
5. Chemical reaction
6. Reactant
7. Product
8. Catalyst
9. Activation energy
10. Capillary action
11. Expansion
12. Contraction

Write true or false and correct the incorrect statement: -

1. All physical changes are reversible.
2. When two substances are mixed, it is always a chemical change.
3. All irreversible changes are chemical changes.
4. Dissolving of sugar in water is a chemical change.
5. All the three states of water are reversible change.
6. Gases expand more than solids on heating.

Answer the questions: -

1. What are some of the reasons/ causes of changes around us?
2. What are the different affects of changes around us?
3. Why are changes important?
4. What are reversible changes? Explain with an example.
5. What are irreversible changes? Explain with an example.
6. Why some changes are reversible and some irreversible?
7. Suggest two changes which are irreversible and yet the molecular structure does not change.
8. Give two examples of physical changes which are reversible.
9. Give two examples of physical changes which are irreversible.
10. What is a physical change? Give 5 types of physical changes.
11. What is a chemical change? give 2 examples of chemical change?
12. Write differences between the physical and chemical changes.
13. What is a catalyst? Explain with an example.
14. What is capillary action? Explain with an example.
15. Explain how a burning candle is an example of both physical and chemical change?
16. Why electric wires between the electric poles are hung loosely?
17. Mention two examples where expansion and contraction is used.
18. The lid of the jam bottle is not opening. How can you open the same using a principle you have studied in this chapter.
19. What's the main difference between a physical change and a chemical change?
20. Give an example of a physical change you might see in your kitchen.
21. Describe a chemical change that occurs in nature.
22. When you break a glass, is it a physical or chemical change? Explain your answer.
23. Why might it be important to know whether a change is physical or chemical?
24. Describe a chemical change that happens when mixing substances you might find at home.
25. How can you tell if a chemical change has occurred when mixing substances?
26. Why is it important to understand the changes that occur when mixing different substances?
27. Maria noticed that her bicycle's chain had developed a reddish-brown coating after being left out in the rain. What scientific process is responsible for this change?
28. During a camping trip, Sam observed that the morning dew disappeared as the sun rose. What type of change is this, and what causes it?

29. In a kitchen experiment, Lisa mixed vinegar and baking soda, causing a fizzy reaction. Is this a physical or chemical change? Justify your answer.

State whether the following is a physical change or a chemical change.

1. Mixing water and salt
2. Setting of milk to form curd
3. Rusting of iron
4. Melting of chocolate
5. Growth of a plant or an animal
6. Grinding of wheat
7. Burning of wood
8. Cow dung to make bio gas
9. Ripening of mango
10. Burning of wood

State whether the following is a reversible change or an irreversible change.

1. Mixing sugar and water
2. Melting of iron
3. Deflating a ball
4. Seed growing into a sapling
5. Blooming of a flower
6. Curdling of milk to make cheese
7. Burning of wax
8. Growth of hair
9. Cooking food
10. Baking of a clay pot

State the changes -physical, chemical, reversible and irreversible in the following (can be more than one)

1. Breaking of glass tumbler
2. Change in the size of an eraser when used
3. Expansion of metal on heating
4. Decay of plants and animals
5. Change of day and night