

CLASS-6
SCIENCE ASSIGNMENT
TERM -1
CHANGES AROUND US

Q1. Give any five examples of changes taking place in your daily life.

Ans. The examples of various changes are:

- a) Germination of seeds
- b) Growing of height
- c) Inflating a balloon
- d) Melting of ice
- e) Burning of candle

Q2. What are the various types of changes?

Ans.

- a) Slow & fast change
- b) Reversible & irreversible change
- c) Desirable & undesirable change
- d) Physical & chemical change

Q3. Differentiate between reversible & irreversible change. Also give examples.

Ans. **Reversible change**: Those changes which can be reversed to the original form by removing the cause of change are called reversible changes.

Example: melting of ice, stretching of rubber band, folding of paper etc.

Irreversible change: Those changes which cannot be reversed to the original form are called irreversible changes.

Example: burning of candle, formation of flower to bud, bursting a balloon etc.

Q4. What are desirable & undesirable changes?

Ans. **Desirable changes**: Those changes which are desired to occur that is we want them to take place are known as desirable changes.

Example: ripening of fruits, germination of seeds etc.

Undesirable change: Those changes which we do not want to take place are called undesirable changes.

Example: rusting of iron, souring of milk, rotting of fruits etc.

Q5. Classify the following as reversible or irreversible changes:

- | | |
|-----------------------------|---------------------|
| a) Growth of a plant | Irreversible change |
| b) Cooking of food | Irreversible change |
| c) Melting of wax | reversible change |
| d) Dissolving salt in water | reversible change |

Q6. How do following changes differ from each other:

- a) Burning of wax
- b) Melting of wax

Ans. Burning of wax is an irreversible change whereas melting of wax is an example of a reversible change.

When we light a candle, then the wax present burns to produce various new substances like carbon dioxide, water vapour, smoke etc. which cannot be combined together to give back wax.

Also, solid wax on heating melts to form liquid wax which can be solidified again by cooling it.

Q7. What are slow & fast changes? Give example.

Ans. **Slow change:** Those changes which take place in a long period of time are called slow changes.

Example: rusting of iron, germination of seeds etc.

Fast change: Those changes which take place in a short time are called fast changes.

Example: burning of paper, bursting a balloon.

Q8. How is inflating a balloon different from bursting an inflated balloon?

Ans. Inflating a balloon is an example of a reversible change whereas bursting a balloon is irreversible change.

When we blow air into a balloon, its shape & size changes. But it regains its original form when the air is allowed to escape. On the other hand a burst balloon cannot be changed back to the original form.

Q9. Differentiate between physical & chemical change. Give 2 examples of each.

Ans.

Physical Change

- Those changes in which no new substance is formed are called physical changes.
- Physical changes are usually reversible.
- Example: melting of wax, tearing of paper etc.

Chemical Change

- Those changes in which a new substance with new chemical properties is formed are known as chemical changes.
- Chemical changes are irreversible.
- Example: burning of paper, baking a chapatti etc.

Q10. Explain how, a metal wheel is fixed around the wooden wheel of a cart.

Ans. The iron rim is fixed around the wooden wheel of a cart by the process of expansion on heating. The rim is made slightly smaller than the wooden wheel. On heating; the rim expands & fits onto the wheel.

After that cold water is poured over the rim, as a result, it contracts & fits tightly onto the wheel.

Q11. Explain how, the iron blade of the digging objects like spade is fixed to a wooden handle.

Ans. The iron is fixed by the process of expansion on heating.

The iron blade of tools has a ring in which the wooden handle is to be fixed. The ring is slightly smaller than the handle. To fix the handle, the ring is heated & it expands. Now, the handle easily fits on the ring. When the ring cools down then it contracts & fits tightly on the handle.

Q12. When water is mixed with Plaster of Paris & allowed to dry, it sets into a hard mass. State whether the change is reversible or irreversible. Justify your answer.

Ans. The above change is an example of an irreversible change. This is because when water is added to Plaster of Paris then it sets as a hard mass & cannot be converted back into the original form.

Q13. A bag of cement lying in the open gets wet due to rain. Can the change which takes place in cement on getting wet be reversed by drying?

Ans. No, this change cannot be reversed on drying as some changes occur in cement on getting wet due to which it gradually sets as a hard mass. Even if it is kept in bright sunshine, then also the change cannot be reversed.

Q14. Milk can be changed into curd but curd cannot be changed back into milk. What is the general name of such changes?

Ans. Such changes are known as irreversible changes.

Q15. How does a blacksmith change a piece of iron into different tools?

Ans. A blacksmith first heats a piece of iron till it becomes red hot. It then becomes soft & can be beaten into desired shape.

Q16. You must have seen that construction workers heat a black material called coal tar for repairing a road. State whether the change which has occurred in coal tar on being heated is reversible or irreversible.

Ans. When coal tar is heated, it melts to form a thick dark liquid. The melting of coal tar is a reversible change as it solidifies again on cooling.

Q17. Why is shaping of wet clay into clay pot a reversible change whereas baking a clay pot an irreversible change?

Ans. The shaping of wet clay into a clay pot, a reversible change as wet clay can be converted back into the original clay. Whereas a baked clay pot cannot be changed back into the original form, therefore it is an irreversible change.