Chapter 6
Changes Around Us

SOLUTIONS:
Exercises:

Q1. To walk through a waterlogged area, you usually shorten the length of your dress by folding it. Can this change be reversed?

Ans: Yes, this change can be reversed by unfolding the dress again.

Q2. You accidentally drop your favourite toy and break it. This is a change you did not want. Can this change be reversed?

Ans: No, this change cannot be reversed.

Q3. Some changes are listed in the following table. For each change, write in the blank column whether the change can be reversed or not.

S. No.	Change	Can be reversed (Yes/No)
1.	Sawing of a piece of wood	–
2.	Melting of ice candy	–
3.	Dissolving sugar in water	–
4.	Cooking food	–
5.	Ripening of a mango	–
6.	Souring of milk	–

Ans:

S. No.	Change	Can be reversed (Yes/No)
1.	Sawing of a piece of wood	No
2.	Melting of ice candy	Yes
3.	Dissolving sugar in water	Yes
4.	Cooking food	No
5.	Ripening of a mango	No
6.	Souring of milk	No

Q 4: A drawing sheet changes when you draw a picture on it. Can you reverse this change?

Ans: It depends on what type of materials is used to draw the picture. If pencil is used to draw the picture then change can be reversed by erasing the drawing with an eraser. If pen or colours are used to draw the picture then the change cannot be reversed.

Q5. Give examples to explain the differences between changes that can or cannot be reversed.

Ans: Examples to explain the differences between changes that can or cannot be reversed are given below:

Change that can be reversed	**Change that cannot be reversed**
Melting of ice cube	Sawing of a piece of wood
Dissolving sugar in water	Cooking food
Inflation of balloon	Ripening of a mango
To roll out a roti from a dough	Milk change into curd
Making aeroplane by folding paper	Burning of incense stick or wood
Stretching of rubber band	Making paper toy by cutting the paper
Drawing a picture with pencil	Growth of living being

Q6. A thick coating of Plaster of Paris (POP) paste is applied over the bandage on a fractured bone. It becomes hard on drying to keep the fractured bone immobilized. Can the change in POP be reversed?

Ans: No, the change in Plaster of Paris cannot be reversed.

Q7. A bag of cement lying in the open gets wet due to rain during the night. The next day, the sun shines brightly. Do you think the changes, which have occurred in the cement, could be reversed?

Ans: The changes cannot be reversed because the cement that hardens up after getting wet cannot be obtained back.

Extra Questions and Answers:

Q1. Explain how the wooden handle of a tool is fixed to the iron blade?

Ans: There is a ring on the iron blade of a tool to fit the wooden handle. This ring is slightly smaller in size than the wooden handle. To fix the handle, the ring is heated and its size expands and the handle easily fits into the ring. When the ring cools down it contracts and fits tightly on to the handle.

Q2. What are the changes that occur when we burn wood? Is it reversible or irreversible changes?

Ans: Wood changes into ash and gases when burnt. The changes in this case is irreversible changes.

Q3. Match the following:

a. Evaporation	i. Irreversible changes
b. Melting	ii. Reversible changes
c. Dissolving of sugar	iii. When heated, water changes to water vapour
d. Making curd	iv. Ice melts into water

Ans: a – iii, b – iv, c – ii, d – i.

Q4. Differentiate between reversible and irreversible changes?

Ans: Reversible changes are the changes which can be reversed back to its original form whereas Irreversible changes are a permanent change that cannot be reversed back.

Q5. Name a substance that can change to all the three forms of matter i.e solid, liquid and gas.

Ans: Water.

Water when heated above 100^0C it change to gas form (water vapour), when cooled down at room temperature it changes to liquid form. When it cools down below 0^0C, it forms into ice i.e solid form.

Q6. Choose the correct answer:

A. You heat some wax in a pan. What kind of change is it?

i. Reversible change ii. Irreversible change

iii. Contracts iv. Expands

Ans: i. Reversible change

B. Is burning of candle can be reversed or not?

i. Can reverse ii. Cannot reverse

iii. Contracts iv. Expands

Ans: ii. Cannot reverse.

C. When iron is heated, it .....

i. Evaporates ii. Condensation

iii. Contracts iv. Expands

Ans: iv. Expands
