

Question:1

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

Solution:

Yes. The length of the dress can again be increased by unfolding it. Hence, this change can be reversed.

Question:2

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

Solution:

No. This change cannot be reversed.

Question:3

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.	The sawing of a piece of wood	-
2.	The melting of ice candy	-
3.	Dissolving sugar in water	-
4.	The cooking of food	-
5.	The ripening of a mango	-
6.	Souring of milk	-

Solution:

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

Question:4

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

Solution:

If we draw a picture on a drawing sheet with a pencil, we can get back the original drawing sheet by erasing the drawing with an eraser. In this case, the change can be reversed.

However, if we draw with a pen, then the original drawing sheet cannot be obtained back because we cannot erase ink. Hence, in this case, the change cannot be reversed.

Question:5

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

Solution:

To explain the differences between changes that can or cannot be reversed, some examples are given below:

(i) If we inflate a balloon, the size and shape of the balloon undergoes a change. However, the original size and shape of the balloon can be obtained back by allowing the air to escape from the balloon. This means that the change that occurs by inflating a balloon can be reversed. But, if the balloon bursts after being inflated, then its original size and shape cannot be obtained back. Thus, in this case, the change cannot be reversed.

(ii) If we fold a piece of paper, then the shape and size of the paper undergoes a change. In this case, the original shape and size of the original paper can be obtained back. Thus, this change can be reversed. However, if we cut the piece of paper, the change in the shape and size of the paper cannot be reversed.

(iii) After we roll out a *chapatti* from a ball of dough, the *chapatti* can be converted back into a ball. Thus, the change occurring here can be reversed. But, if we cook the *chapatti* on a *tawa*, then it cannot be converted back into a ball of dough. Thus, the change is irreversible.

Question:6

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?

Solution:

When water is added to plaster of Paris (POP), it changes to another substance and on drying it hardens. Once the POP has hardened, its shape cannot be changed. Therefore, the change in POP cannot be reversed.

Question:7

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 that have occurred in the cement can be reversed?

Solution:

In this case, the changes cannot be reversed. This is because the cement that hardens up after getting wet cannot be obtained back.