

Fig. 6.5 Collapsing and opening up of Mimosa leaves represent a reversible change.

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

Ans: No, the change in POP cannot be reversed since it is a chemical change.

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, which have occurred in the cement, could be reversed?

Ans. No, these are irreversible chemical changes.

1. What is a physical change? Explain with example.

Ans: The changes in which only physical properties of substances are changed and no new substance is formed is called physical change. It is a reversible change. Example: Boiling and freezing of water.

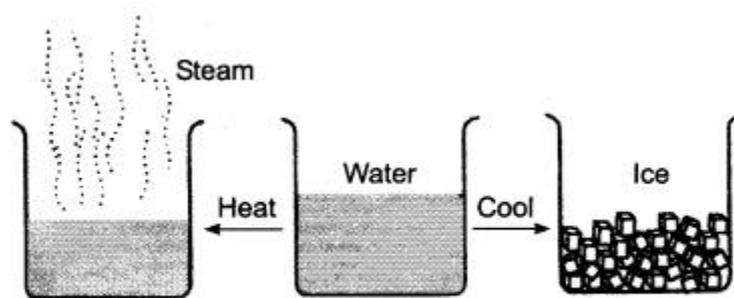


Fig. 6.6 Physical changes

2. What is a chemical change? Explain with example.

Ans: The changes in which new substance with new chemical properties are formed are called chemical changes.

Example: Reaction between washing soda and lemon juice in which CO_2 and other substances are formed.

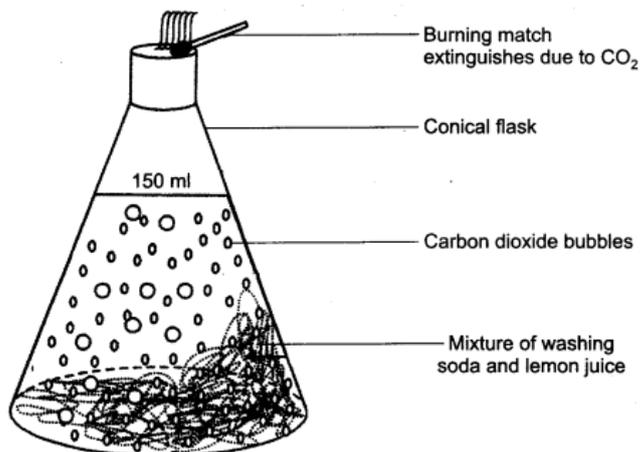


Fig. 6.7 Reaction between washing soda and lemon juice

3. What happens when sugar is heated?

Ans: When sugar is heated continuously then a black powdery substance is formed. This is a chemical change.

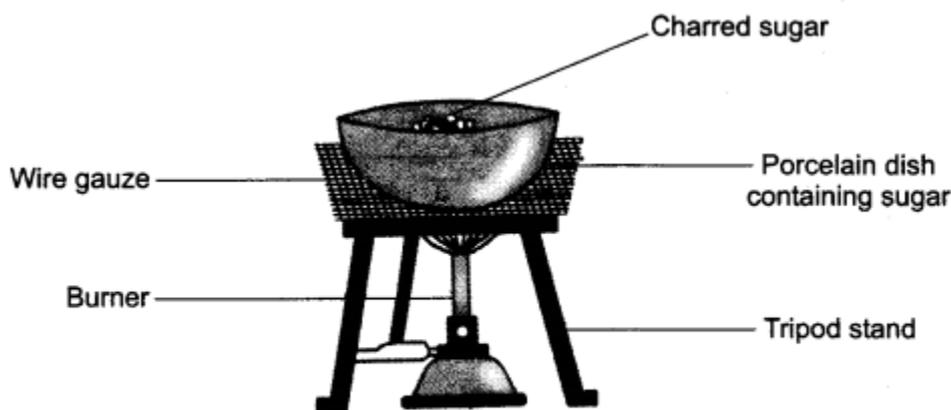


Fig. 6.8 Heating of sugar

1. Explain how a metal rim slightly smaller than a wooden wheel can be fixed on it.

Ans: The metal rim is always made slightly smaller than the wooden wheel. The metal rim is heated. On heating, the rim expands and fit onto the wheel. Cold water is then poured over the rim. Due to cooling the metal rim contracts and fits tightly onto the wheel.

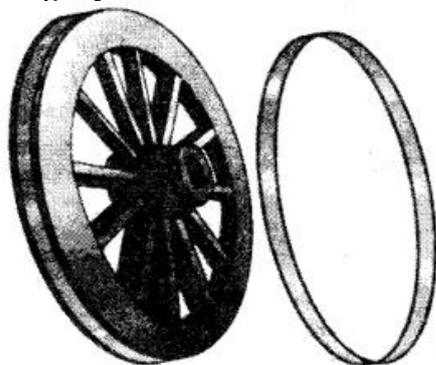


Fig. 6.9 Cart wheel with metal rim fixed on it.

2. How does curd being set? Is this change reversible?

Ans: A small quantity of curd is added to warm milk. The milk is stirred and is set aside undisturbed for a few hours at a warm place. In a few hours, the milk changes into curd.

Curd formed from milk cannot be changed into milk again. So, this an irreversible (cannot be reversed) change.