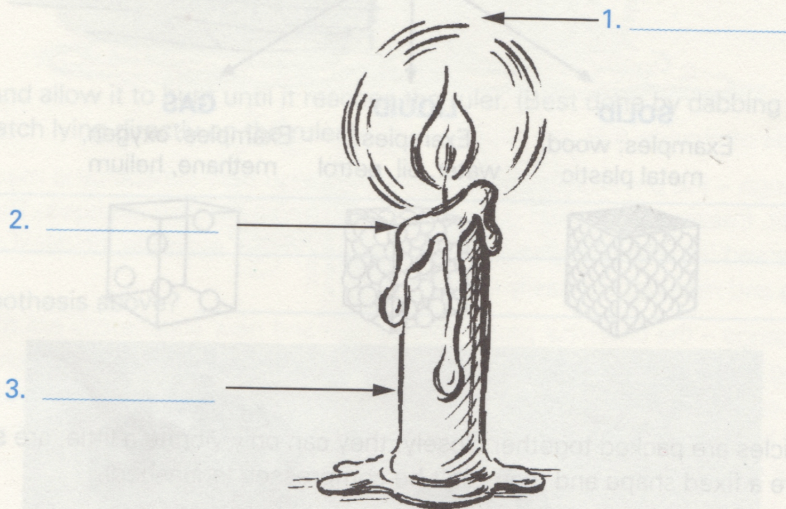


Changes of state

The state of a substance may be changed. This is a physical (not a chemical) change. The particles are the same, but behave differently. Water can change into all three states – liquid water, solid ice and water vapour.

Activity – States of a burning candle

Label the three states of a burning candle:

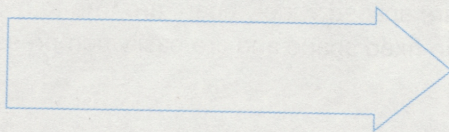


When there is a change of state, heat is always added or removed. When enough heat is added to liquid water, it will evaporate into the air. When enough heat is removed from liquid water, it will freeze solid.

Activity – Change of state

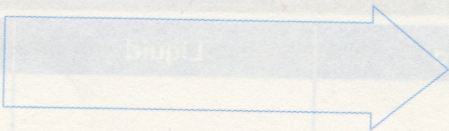
Write **Heat energy added** or **Heat energy removed** inside the arrows in the following diagrams:

1. Ice



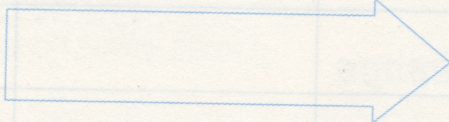
Water

2. Water



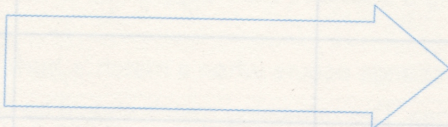
Water vapour

3. Water



Ice

4. Water vapour



Water