Changes of state

by EMMA

- WHEN A SOLID MELTS TO FORM A LIQUID OR A LUQUID EVAPORATES TO FORM A GAS. WE SAY THAT THERE IS A CHANGE OF STATE

- EVAPORATION, MELTING ,BOILING AND CONDENSATION ARE ALL TYPES OF "CHANGES OF STATE "

MELTING

- THE MELTING POINT IS THE TEMPERATURE AT WHICH A SOLID CHANGES TO A LIQUID.
- WHEN A SOLID IS HEATED THE HEAT ENERGY CAUSES THE PARTICLES TO EVAPORATE. EVENTUALLY THEY BREAK FREE FROM THEIR FIXED POSITIONS. THEY BEGIN TO SLIDE OVER EACH OTHER. We SAY THAT THE SOLIDS MELTING TO FORM LIQUID

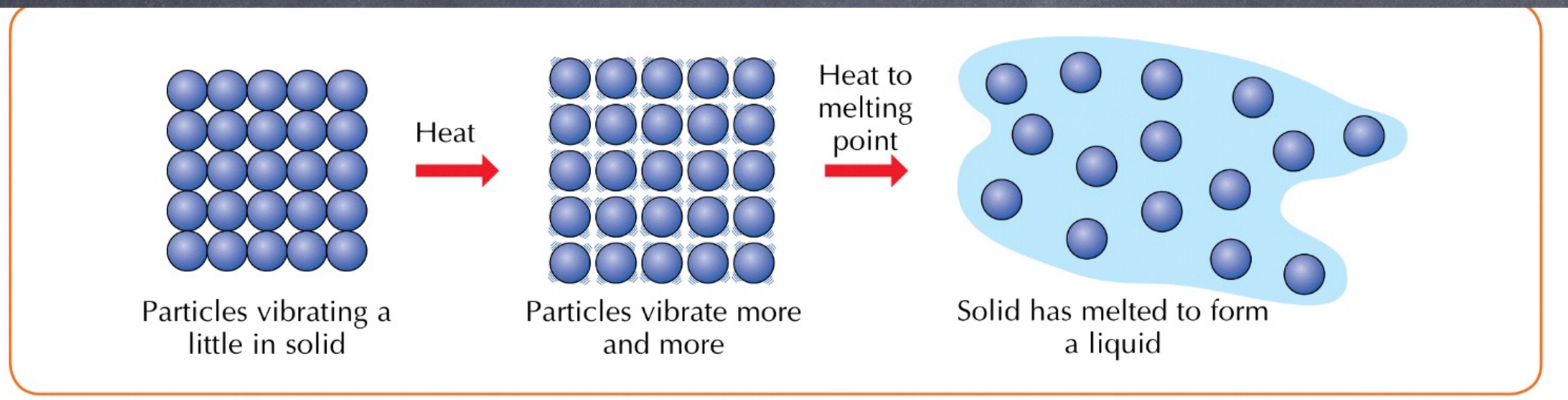

Fig. 20.7 When a solid melts, the particles vibrate so much that they break away from their fixed positions. The solid now starts to become a liquid.

EVAPORATION

- EVAPORATION IS THE CHANGING OF A LIQUID TO A GAS
- EVAPORATION IS WHEN THE HEAT FROM THE SUN GIVES SOME PARTICLES NEAR THE SURFACE OF THE LIQUIDS EXTRA ENERGY .

BOILING

- THE BOILING POINT OF A LIQUID IS THE TEMPERATURE AT WHICH A LIQUID CHANGES TO A GAS THROUGHOUT THE LIQUID

CONDENSATION

Examples of Condensation

- You may notice this happening when you have a **hot bath** or a shower. The water vapour or steam is turning to liquid water on the cold surface of the mirror or window.
- It is also observed in a kitchen when the steam from a **kettle** meets the much colder glass in the window. The hot gas changes to droplets of water on the glass.

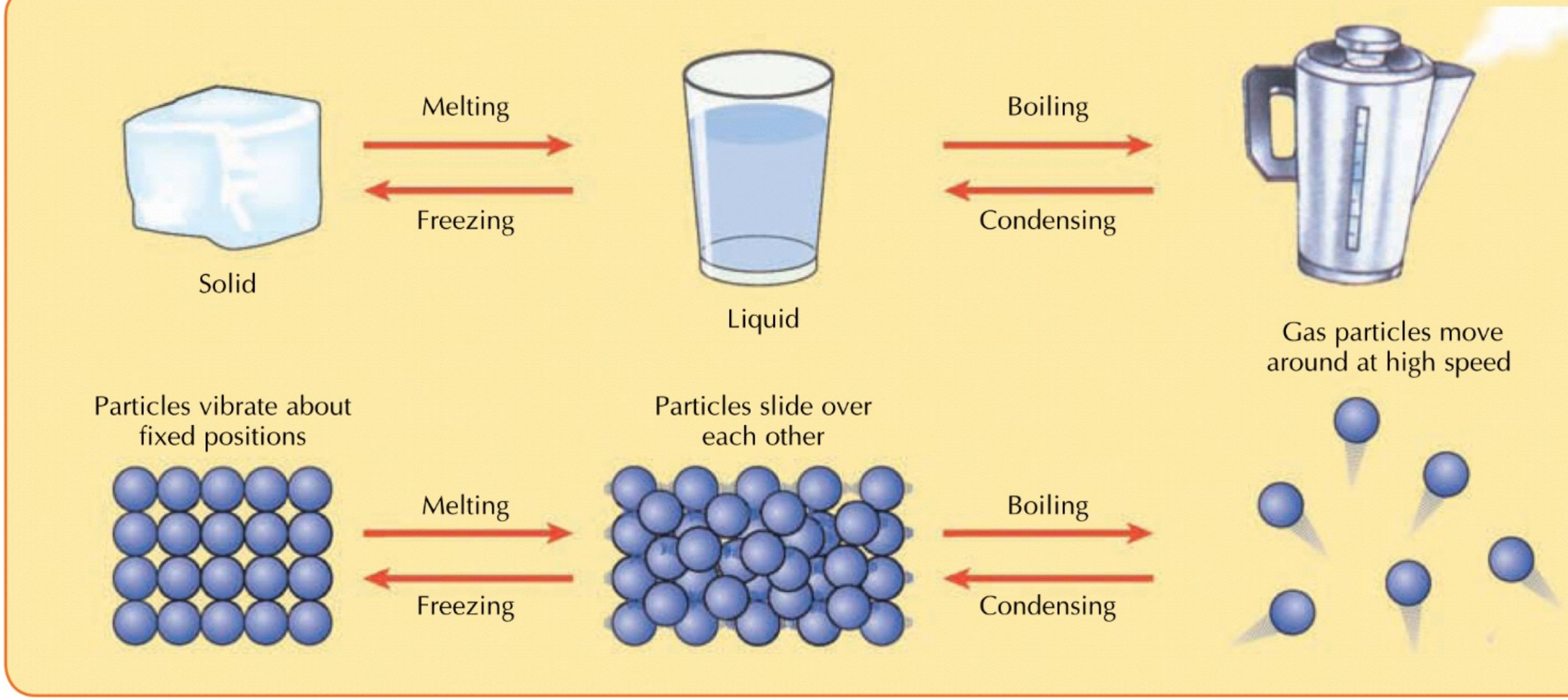

Fig. 20.9 The state of a substance can be changed by heating or cooling.

Condensation

On cooling a gas, the particles slow down and become closer to each other. Eventually a liquid is formed. The changing of a gas to a liquid is called **condensation**.