

**Handout 23: Sequencing text – what happens to ice when heated (Science)**

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**At the beginning of the experiment**, the thermometer in the beaker containing the ice read –10°C.

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**Once the lit Bunsen burner** was placed below the beaker, the temperature rose steadily to 0°C.

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**However,** at this point, for a few minutes there was both ice and water in the beaker but there appeared to be no change in the temperature of the water.

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**This can be explained by the fact** that particles in a solid are packed closely together. As a solid melts, the energy transferred is used to pull the particles apart.

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**As the particles in a solid are heated**, they vibrate more and the temperature rises. This is because, when all the particles are pulled apart, they are freer to move.

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**Thus as more energy is put in**, they move faster and faster causing the temperature to rise**. In other** **words**,they have more kinetic energy.

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**The thermometer then showed** a steadily increasing rise in temperature.

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**After *x* minutes**, the water reached 100°C (boiling point) and soon started to boil furiously.

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(Developed in collaboration with Simon Cossutta, science teacher, Cardinal Newman School, Brighton)