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| Key Diagrams |



1. Water from lakes, puddles, rivers and seas is evaporated by the suns heat, turning it into water vapour.
2. This water vapour rises, then cools down to form water droplets in clouds (condensation).
3. When the droplets get too heavy, they fall down to earth as rain, sleet, hail or snow (precipitation).

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| Vocabulary |
| Solid | A solid substance or object stays the same shape whether it is in a container or not. |
| Liquid | A liquid is a substance which is not solid but which flows and can be poured, for example water. |
| Gas | Gas is a substance like air that is neither liquid nor solid and burns easily. It is used as a fuel for cooking and heating. |
| Particles | In physics, a particle is a piece of matter smaller than an atom, for example an electron or a proton. |
| Melt | When a solid substance melts or when you melt it, it changes to a liquid, usually because it has been heated. |
| Condensation | Condensation consists of small drops of water which form when warm water vapour or steam touches a cold surface such as a window. |
| Evaporation | Evaporation is when a liquid changes to a vapour, caused by an increase in temperature and/or a decrease in pressure. |
| Water Vapour | Water in the form of gas, after it has been heated |

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|  Facts |
| 1 | Matter usually exists in one of three states or phases: solid, liquid, or gas.  |
| 2 | The chair you are sitting on is a solid, the water you drink is liquid, and the air you breathe is a gas. |
| 3 | Materials can change between states when you heat or cool them. |
| 4 | If a solid is heated to its melting point, it melts and changes to a liquid. This is because the particles start to move faster and faster until they are able to move over and around each other.  |
| 5 | When freezing occurs, the particles in the liquid begin to slow down as they get colder. They can then only move gently on the spot, giving them a solid structure.  |
| 6 | Evaporation occurs when water turns into water vapour. This happens very quickly when the water is hot, like in a kettle, but it can also happen slowly, like a puddle evaporating in the warm air.  |
| 7 | Condensation is when water vapour is cooled down and turned into water. You can see this when droplets of water form on a window. The water vapour in the air cools when it touches the cool surface. |
| 8 | Water boils at 100 degrees and turns into a gas. Water freezes at 0 degrees and turns to a solid. Water is the olny a liquid that boils at 100 degrees and freezes at 0 degrees. Water is the only material on earth which exists natually in all 3 states.  |