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| Key Diagrams |







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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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|  Key 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.  |