**KS3 Particle model**

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| **Definitions** | | |  | | | |
| 1 | Solid | Particles have a fixed volume and fixed arrangement. | 16 | Mixture | Two or more elements that are not chemically bonded together. | |
| 2 | Liquid | Particles have a fixed volume but no fixed arrangement. | 17 | Boiling Point | The temperature at which a liquid changes into a gas.  NOTE: Condensation point is the same temperature. | |
| 3 | Gas | Particles have no fixed shape or volume. Fill the container they are in and can be condensed. | 18 | Melting point | The temperature at which a solid changes into a liquid.  NOTE: Freezing point is the same temperature. | |
| 4 | Evaporation | The process by which a liquid turns to a gas. | **Properties of solids, liquids and gases** | | | |
| 5 | Condensation | The process by which a gas turns to a liquid. |  |  | | |
| 9 | Change of state | The changing of one state to another. | Image result for change of state diagram | | | Related image  Solid Liquid Gas |
| 10 | States of matter | A solid, liquid or gas. |
| 11 | Physical change | Involves a change in the state of matter. No new compound is made and it can be reversed. |
| 12 | Chemical change | Involves a change in the chemical composition. New compounds are made. |
| 13 | Atom | Everything in the universe is made up of atoms. |
| 14 | Element | Every element is made up of its own type of atom |
| 15 | Compound | Two or more different elements that are chemically bonded together. | **Diagram 1: Change of state** | | | **Diagram 2: States of matter** |

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| **Definitions** | | | **Common Formulae of gases** | | | |
| 1 | Solution | A mixture of a solid dissolved in a liquid. |  | O2 | Oxygen | |
| 2 | Solvent | A liquid in which a solid dissolves. |  | N2 | Nitrogen | |
| 3 | Solute | A solid that dissolves in a solvent to form a solution. |  | H2 | Hydrogen | |
| 4 | Saturated | When no more solute will dissolve. | **Common Formulae of compounds** | | | |
| 5 | Dissolve | To become part of a liquid. |  | H2O | Water | |
| 6 | Suspension | A mixture where insoluble particles are distributed throughout the liquid. |  | CO2 | Carbon dioxide | |
| 7 | Soluble | Can be dissolved. |  | NH3 | Ammonia | |
| 8 | Insoluble | Cannot be dissolved. |  | CH4 | Methane | |
| 9 | Filter | Removes undissolved chemicals from a solution. | Filtration Images, Stock Photos & Vectors | Shutterstock | | | pure substance particle diagram elegant a diagram a pure element ... |
| 10 | Filtrate | The solution that passes through the filter paper. |
| 11 | Residue | The solid left behind on the filter paper. |
| 12 | Symbol | Single letter or 2 letters representing an element. |
| 13 | Formula | Combined symbols showing the different elements in a chemical. |
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| 15 |  |  | **Diagram 1: Filtration apparatus** | | | **Diagram 2: Mixtures of compounds and elements** |