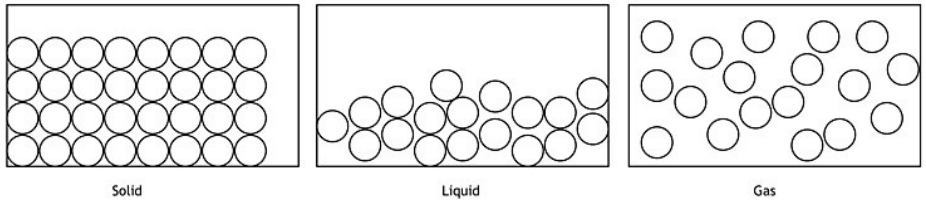
| | The Particle Model | |
|---|---|---|
| 1 | Density | mass in a particular volume |
| 2 | Density Equation | density ($kg/m^3$) = mass (kg) / volume ($m^3$) |
| 3 | Particle model diagrams |   |
| 4 | Calculating volume of a cuboid | length x width x height |
| 5 | Measuring volume of an irregular object | -fill a displacement can with water<br>-submerge the object<br>-measure volume of water displaced with a measuring cylinder |

| | Specific heat capacity | |
|---|---|---|
| 6 | Internal Energy | the total kinetic energy and potential energy of all the particles (atoms and molecules) that make up a system |
| 7 | Specific heat capacity | the amount of energy required to raise the temperature of one kilogram of the substance by one degree Celsius |

| | Changing state | |
|---|---|---|
| 8 | Melting | change of state from solid to liquid |
| 9 | Freezing | change of state from liquid to solid |
| 10 | Evaporating | change of state from liquid to gas at the surface of the liquid |
| 11 | Condensing | change of state from gas to liquid |
| 12 | Sublimating | change of state from solid to gas |
| 13 | Boiling | change of state from liquid to gas at a fixed temperature throughout the liquid |
| 14 | Specific latent heat | the amount of energy required to change the state of one kilogram of the substance with no change in temperature |
| 15 | Specific latent heat of fusion | the energy for a change of state from solid to liquid (or liquid to solid) |
| 16 | Specific latent heat of vaporisation | the energy for a change of state from liquid to gas (or gas to liquid) |

| | Particle motion in gases | |
|---|---|---|
| 17 | Kinetic energy and temperature relationship | the more kinetic energy of the particles, the greater the temperature of the substance |
| 18 | Temperature and pressure relationship | the greater the temperature, the greater the pressure of the gas |