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| Logo  Description automatically generatedLogo  Description automatically generated**Whingate Primary School – Science** | |
| **States of matter** | Shape  Description automatically generated**Year 4** |

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| **What should I already know?** |  | **Vocabulary** |  | **Diagrams** |  | **Learning Journey**  **Assessment** |
| **-**Know the difference between an object and the material from which it is made.  **-**Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.  **-**Describe the physical properties of a variety of everyday materials.  **-**Compare and group together a variety of everyday materials based on their physical properties.  **-**Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.  **-**Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | **Solids** are objects that have a fixed shape.  **Liquids** are fluids that can change shape when poured but have the same volume.  **Gases** are substances that have no fixed size or shape.  **Particles** are the smallest possible units of matter.  **Evaporation** is when a liquid heats up to become a gas.  **Condensation** is when a gas cools to become a liquid.  **Freezing** is when a liquid cools to become a solid.  **Melting** is when a solid is heated to become a liquid. | States of Matter  A picture containing graphical user interface  Description automatically generated  Heating and Cooling  Text  Description automatically generated  The Water CycleGraphical user interface  Description automatically generated | **-**Compare and group materials together, according to whether they are solids, liquids or gases.  -Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).  -Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. |
| **What will I know by the end of this unit?** |
| * Group and compare materials different materials. Solid materials keep their shape. Liquids run or flow, they take the shape of their container and are not rigid. * Gas matter can expand and flow, if gas is put in an unsealed container it can escape. * Condensation is a part in the water cycle where water vapour (a gas) turns back into a liquid. * Evaporation is when water is heated up, it changes state and becomes a gas called steam, this process is called evaporation. |
| **Famous Scientists/Inventors** |
| **-**Antoine Lavoisier and Joseph Priestley – two scientists responsible for the discovery of oxygen.  **-**Washington Sheffield – invented toothpaste.  **-**Garrett Morgan – invented the first modern gas mask.  **-**Robert Boyle – studied the behaviour of gases and linked states of matter with the movement of particles. |
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