Science Knowledge Organiser LKS2 Term 1 States of Matter

National Curriculum Links:

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state whent hey 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.

Working scientifically skills
This topic develops the following working scientifically skills:

- Ask relevant questions and use different types o fscientific enquiries to answer them.

Set up simple practical enquiries, comparative and fair tests.

- Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment,including thermometers and data loggers.

Gather, record, classify and present data in a variety of ways to help in answering questions.

- Record findings using simple scientific language,drawings, labelled diagrams, keys, bar charts, and tables.
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

- Identify differences, similarities or changes related to simple scientific ideas and processes.

Use straightforward scientific evidence to answer questions or to support their finding

Vocabulary

boiling point: the temperature at which a liquid turns into a gas.

boiling: when a material reaches a temperature when it bubbles and turns into a gas rapidly.

condensing: the process when a gas turns into a liquid evaporation: when a liquid turns into a gas.

freezing: when a liquid turns into a solid.

gas: a state of a material when it fills the entire space available.

liquid: a state of a material when it can flow from one place to another, and can be poured.

matter: another name for 'material'
material: what an object is made of (not just fabric).

melting: when a sold turns into a liquid.

solid: a state of a material when it cannot change shape, but holds the shape of whatever container it was frozen in.

temperature: a measurement of how hot or cold something is.

thermometer: a device or instrument used to measure temperature.

water cycle: how water moves around .
boiling point: the temperature at which a liquid turns into a gas.

boiling: when a material reaches a temperature when it bubbles and turns into a gas rapidly.

condensing: the process when a gas turns into a liquid evaporation: when a liquid turns into a gas

Sticky Knowledge:

- There are 3 states of matter- SOLID , LIQUID and GAS.
- Water exists in all 3 states.
- Temperatures can alter states.