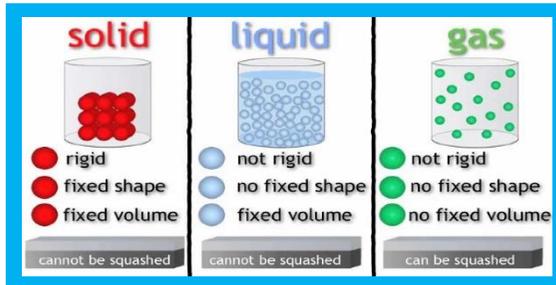




Year 3 and 4 Science Driver Knowledge Mat – States of Matter

Subject Specific Vocabulary

Material	The matter (or substance) from which a thing is or can be made.
Solid	A material which is firm or stable in shape.
Liquid	A substance that flows freely but is of constant volume.
Gas	A substance or matter in a state in which it will expand freely to fill the whole of a container, having no fixed shape (unlike a solid) and no fixed volume (unlike a liquid).
State	One of the distinct forms in which matter can exist.
Temperature	The degree or intensity of heat present in a substance or object.
Evaporation	The process of turning from liquid into gas.
Condensation	The process of turning from gas into liquid.
Precipitation	Rain, snow, sleet, or hail that falls to or condenses on the ground.
Water Cycle	The cycle of processes by which water circulates between the earth's oceans, atmosphere, and land



Sticky Subject Knowledge About States of Matter

You can compare and group materials together, according to whether they are solids, liquids or gases

Some materials change state when they are heated or cooled.

The temperature at which matter changes state can be measured in degrees Celsius (°C)

Evaporation and condensation are part of the water cycle and you can link the rate of evaporation with temperature.

Solids hold their shape; liquids form a pool not a pile and gases can escape from an unsealed container.

Water can be a solid, liquid and gas depending on the temperature.

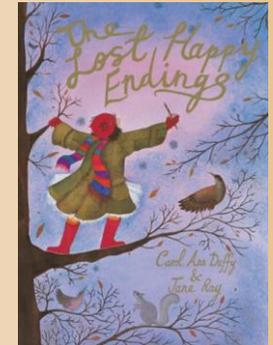
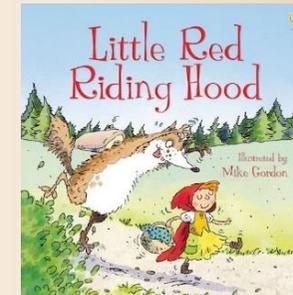
Water freezes at zero degrees.

Particles behave differently as a solid, liquid or a gas.

When water is heated particles move faster and faster until they have energy to move about more.



Quality texts to drive topic



Geography/History Links

- You can observe and record evaporation over a period of time, for example, a puddle in the playground or washing on a line, and investigate the effect of temperature on washing drying or snowmen melting.

Maths in the Wider Curriculum

- If we lower the temperature below 0 degrees Celsius, (or 32 degrees Fahrenheit), water changes its state into a solid called ice.
- If we heat a volume of water above 100 degrees Celsius, (or 212 degrees Fahrenheit), water changes its state into a gas called water vapour.