

Why do puddles disappear?

Materials Y4

Key scientist – John Dalton

John Dalton helped us understand how tiny particles called atoms make up everything around us, including how water can change between solid, liquid, and gas.



Key vocabulary

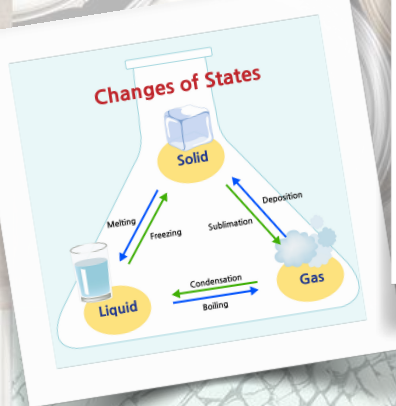
boiling	Heating a liquid to the point where it begins to change state to a gas.
condensation	When a gas changes state to a liquid.
evaporation	When a liquid changes state to a gas.
freezing	The process of a liquid changing state to a solid
gas	state of matter which flows, can spread out and be squashed
liquid	state of matter which flows and forms a pool
matter	anything which takes up space and has a mass
melting	The process of a solid changing to a liquid
particle	One very small piece of matter
precipitation	Rain, snow, sleet or hail.
solid	state of matter which holds its form and shape
transpiration	When water evaporates from the surface of leaves.
water vapour	Water in the form of a gas.

Key learning

- 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.

Working scientifically focus

- Observing and measuring
- Recording data
- Making predictions



solid	liquid	gas
• rigid	• not rigid	• not rigid
• fixed shape	• no fixed shape	• no fixed shape
• fixed volume	• fixed volume	• no fixed volume
cannot be squashed	cannot be squashed	can be squashed



Materials – Our Learning Journey

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| <p>Year 1</p> <ul style="list-style-type: none"> Identify materials and their properties | <p>Year 2</p> <ul style="list-style-type: none"> Compare suitability of materials to their uses and the impact of changing their shape. | <p>Year 3</p> <ul style="list-style-type: none"> Compare rocks and soil and describe fossil formation | <p>Year 4</p> <ul style="list-style-type: none"> Observe and measure changes of state | <p>Year 5</p> <ul style="list-style-type: none"> Reversible and irreversible changes |
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Ethics

Should there be a limit on how much water people can use?

