

# States of Matter

# Class 3 and 4

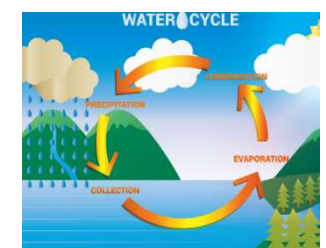
## Key Vocabulary

<b>Condensing</b>	The process when a gas turns into a liquid	<b>Reversible</b>	Can be changed back to how it was before
<b>Evaporation</b>	When a liquid turns into a gas	<b>Irreversible</b>	Cannot be changed back to how it was before.
<b>Matter</b>	Another name for material	<b>Vapour</b>	Small drops of liquid that occur as a result of heating a gas or a liquid.
<b>Substance</b>	A material with certain properties and characteristics	<b>Celsius</b>	The common scale in the UK for measuring temperature.

## The Water Cycle

**Water Cycle:**  
Water in the earth is constantly moving. It is recycled over and over again in a process called the water cycle:

1. The sun heats up the water on land, rivers and seas and



2. turns it to water vapour.
3. Water vapour in the air cools down and condenses to form clouds.
4. The clouds become heavy and water falls back to earth as rain.
5. Water returns to the sea from rivers and lakes and the cycle starts again.

## Key Knowledge

<b>Materials</b>	Materials can be grouped into 4 main categories: <i>(We do not learn about plasma at KS2)</i>	When a material changes from one type to another, we say it has 'changed state'.
<b>Solids</b>	<ul style="list-style-type: none"> <li>- Stay in one place and can be held</li> <li>- Most keep their shape and do not flow like a liquid. Some solids like sand and salt can be poured.</li> <li>- Solids always take up the same amount of space and do not spread out.</li> </ul>	<ul style="list-style-type: none"> <li>- Water boils at exactly 100 degrees Celsius</li> <li>- Different solids melt at different temperatures: ice melts at 0c whilst chocolate melts at approx. 35c</li> <li>- Water freezes at 0c</li> </ul>
<b>Liquids</b>	<ul style="list-style-type: none"> <li>- Liquids can flow and be poured easily.</li> <li>- They are not easy to hold.</li> <li>- Liquids can change shape depending of the container they are in.</li> </ul>	
<b>Gases</b>	<ul style="list-style-type: none"> <li>- Are often invisible</li> <li>- Do not keep their shape. They will spread out to fill whatever container they are in.</li> </ul>	

## Prior Learning

- Children will be able to describe properties of materials, in particular absorbent and waterproof.

## Next Steps

Children will learn about reversible and irreversible changes.  
Children will learn about separation of materials using different processes.