

Knowledge Organiser - The Water Cycle

Water is a compound of two elements (hydrogen and oxygen) and we sometimes refer to it as H₂O. Water covers more than 70% of the Earth's surface. The most common locations are in oceans, rivers, lakes and glaciers. Water is essential to all animal and plant life on Earth. Plants, for example, use water in photosynthesis to make their food. The water cycle is the continuous journey water takes from the sea, to the sky, to the land and back to the sea. Powered by the Sun, the water cycle is happening all the time. This movement of water around our planet is vital to life as it supports plants and animals. **Water never leaves the Earth, it simply moves around the 'water cycle'.** The water cycle follows the journey of water from oceans to clouds to rain to streams to rivers and back into the ocean. The water cycle in-

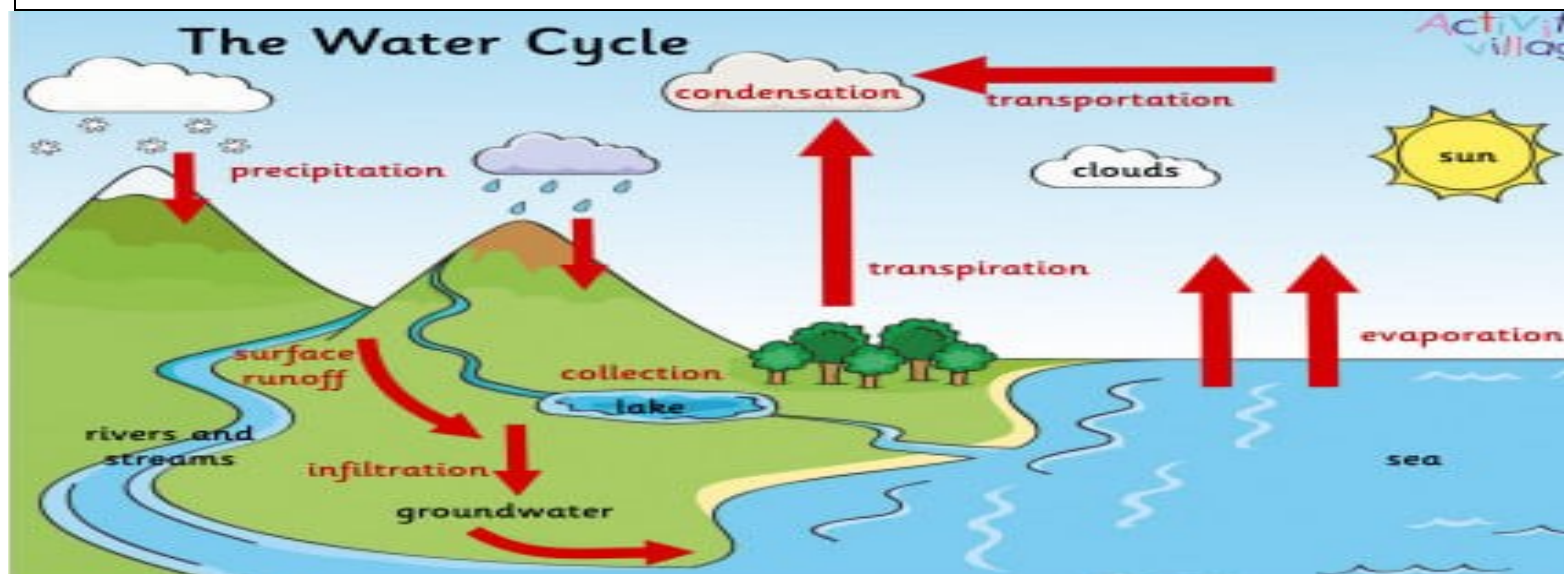


Key Information

- Water always flows downhill. This is important for understanding how rivers form and how they contribute to the water cycle.
- Rivers are fresh water – oceans are salt water. ☒ When rivers are flowing quickly, they take bits of earth (sediment) off banks, downstream called erosion.
- When there has been too much rainfall, rivers may overflow or 'burst their banks', causing significant flooding.
- Silt and sediment are materials carried by running water. ☒ Sometimes rivers carry so much silt and sediment, they can form new land, called a Delta.

Key Vocabulary

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| 1 | Evaporation | The process by which water changes from a liquid to a gas or vapour. |
| 2 | Condensation | The change of water from its gaseous form (water vapour) into liquid vapour. |
| 3 | Precipitation | Water released from clouds in the form of rain, freezing rain, sleet, snow or hail. |
| 4 | Transpiration | The process of water movement through a plant and its evaporation from aerial parts, such as leaves, stems and flowers. |
| 5 | Surface runoff | Flow of water occurring on the ground surface when excess rainwater or other sources can no longer infiltrate the soil. |
| 6 | Infiltration | The process by which water on the ground enters the soil |
| 7 | Ground water flow | This is the downward and lateral movement of water within saturated rock it is a slow movement. |
| 8 | Source | The place where a river begins. |
| 9 | Tributaries | A freshwater stream that feed into a larger stream or river. |
| 10 | Mouth | The place where a river enters a lake, larger river or ocean. |



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| <p>Evaporation is a substance's change of phase from liquid to gas.</p> <p>liquid → gas</p> <p>Evaporation is a type of vaporization.</p> | <p>Condensation is a change in the state of matter from gas to liquid.</p> <p>gas → liquid</p> <p>condensation</p> <p>gas ← liquid</p> <p>vaporization</p> | <p>Snow</p> <p>Hail</p> <p>Rain</p> | <p>Collection of water</p> <p>Lakes</p> <p>Rivers</p> <p>Oceans</p> |
| Evaporation | Condensation | Precipitation | Collection |

Water Pollution

- Pollution can be reduced by being mindful of what we pour down our drains or flush down the toilet, use environmentally friendly household products and not throwing litter into, or near, bodies of water.
- Governments can also contribute to this cause by introducing legislation to ensure businesses dispose of waste responsibly.