



Where Rainwater Goes and How It Gets Recycled

KS3 Ages 11-14 🕒 3 min read

The Water Cycle Explained

When it rains, the water doesn't just vanish or stay on the ground forever. Instead, it travels on an incredible journey called the **water cycle**. This is nature's way of recycling water over and over again, and it has been happening for billions of years.

The water cycle has four main stages: **evaporation**, **condensation**, **precipitation**, and **collection**. Understanding each stage helps us see how rainwater gets recycled naturally.

Think of it like a never-ending recycling machine. Water gets picked up, moved around, cleaned, and sent back down again—just like how rubbish gets sorted, processed, and turned into new products.

Stage 1: Evaporation

After rain falls, water collects in **oceans**, rivers, lakes, and soil. The sun heats this water, turning it from a liquid into an invisible gas called **water vapour**. This process is called **evaporation**. Plants also release water through their leaves in a process called **transpiration**. Together, these are called **evapotranspiration**.

Stage 2: Condensation

The water vapour rises high into the atmosphere where it's much colder. As it cools down, it turns back into tiny water droplets. This process is called **condensation**. Billions of these droplets stick together to form **clouds**.

Think of it like when your bathroom mirror gets steamy after a hot shower. The steam (water vapour) hits the cold mirror and turns back into water droplets—that's condensation happening right in front of you!

Stage 3: Precipitation

Inside the clouds, the water droplets keep bumping into each other and joining up, making bigger and heavier droplets. Eventually they become so heavy that they fall back to Earth as **precipitation**. This can be rain, snow, sleet, or hail, depending on how cold it is.

Stage 4: Collection

The water that falls collects in different places. Some flows into **rivers** and **streams**, some soaks into the **soil** where plants use it, and some runs into the **oceans**.

Underground, water fills spaces in rock and soil called **groundwater**, which people pump out for drinking water.

Then the whole cycle starts again! This amazing system means the water we drink today might have been drunk by dinosaurs **millions of years ago**. The water never leaves Earth—it just keeps moving and changing form.