

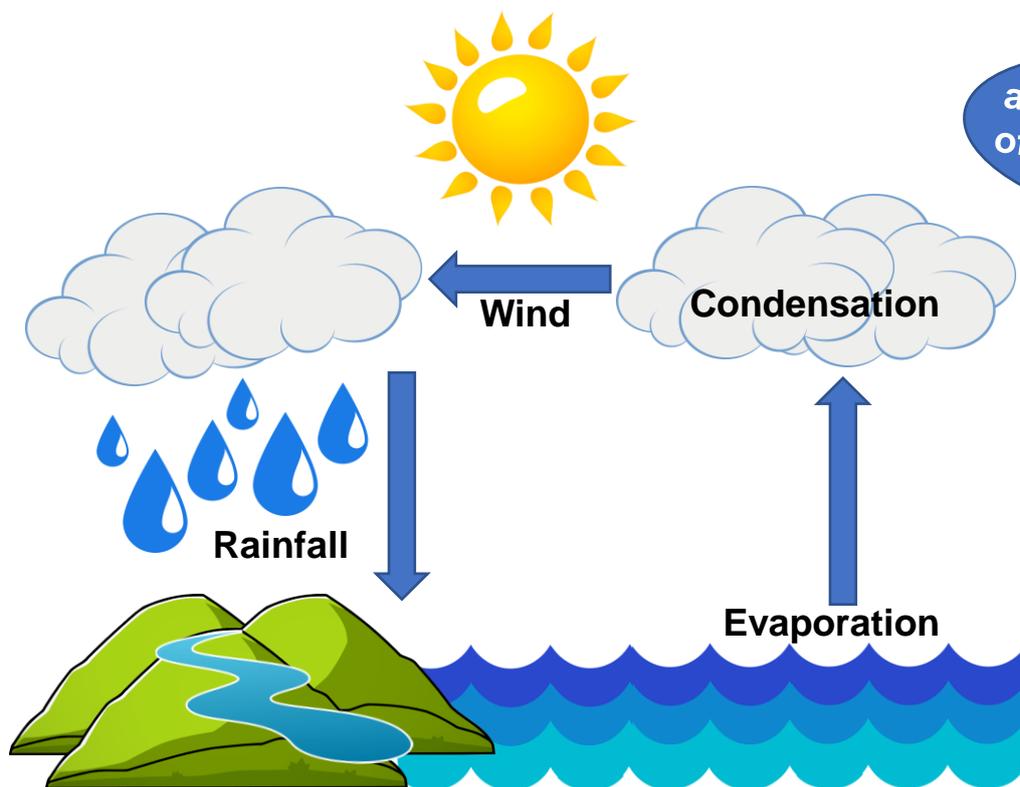
The Water Cycle in a Bag

We Are Investigating...

- *How does water move around the planet?*

Water can swap between a solid, a liquid and a gas depending on its temperature. Liquid water is what we see and use most often – we use it to wash, clean, cook, grow plants and drink. Just about everything really!

Water on Earth is mostly in the oceans, along with the polar ice caps, rivers, lakes and clouds. The total amount of water on Earth is more or less stable over time, but the exact location of the water on Earth is always changing. For example, some days the weather is dry and some days it's pouring with rain. This movement of water around the planet is called “**the water cycle**”.



a simple diagram
of the water cycle

The water cycle is impossible without heat from the sun. When the sun heats water it evaporates, changing from a liquid into a gas called water vapour. As water vapour rises, it cools and condenses back into tiny droplets of liquid water. If enough of these tiny droplets condense in the air they might form clouds, and if enough clouds form then the liquid water falls back to the ground as rain. The cycle then restarts and continues forever.

The Water Cycle in a Bag

You will need:

- Sandwich bags
- Marker pens
- Sticky tape
- Water
- Blue food colouring (optional)
- A sunny window



Before We Begin!

- This activity uses a lot of water which could get messy!
- Always ask an adult for help

Instructions:

1. Use the marker pen to draw the sea, the land, the sun and some clouds on your bag. Decorate the bags however you like but make sure you label everything so you know what's what.
2. Draw some arrows on your bag to show how the water moves:
 - From the sea **up** to the clouds (evaporation and condensation)
 - From clouds over the sea **across** to clouds over land (wind)
 - From the clouds **down** to the land and sea (rainfall)
3. Put a small amount of water in the bag and use some blue food colouring to make it stand out.
4. Make sure the bag is tightly closed and use tape to stick the bag directly onto a sunny window.
5. Check on your bag every hour. Has anything changed? What looks different? Why do you think it looks different?

What's Happening?

The heat from the sunlight is evaporating the liquid water in your bag. This water vapour rises and then condenses into small droplets of liquid water near the top of the bag. When enough of these droplets form they become heavy enough to fall back down just like "rain".

Congratulations! You've just made your very own water cycle in a bag!