

# How does the water cycle work?

Have you ever wondered where water comes from? Have you ever thought about where water disappears to? Water is an essential part of life. The Earth has a limited amount of water, however, it is continually recycled in a process called the water cycle. Read on to find out more about the water cycle and how water on Earth is constantly moving and changing.

## Precipitation

To begin with, precipitation occurs when so much water has formed that the air cannot hold it any longer. The clouds become heavier and as a result, water falls back to the Earth in the form of rain, hail, sleet or snow.

## Infiltration

When water falls back to the earth as precipitation, it may fall back in the oceans, lakes, rivers or it may end up on land. When it ends up on land, it soaks into the earth and is stored as ground water. This process is called infiltration.

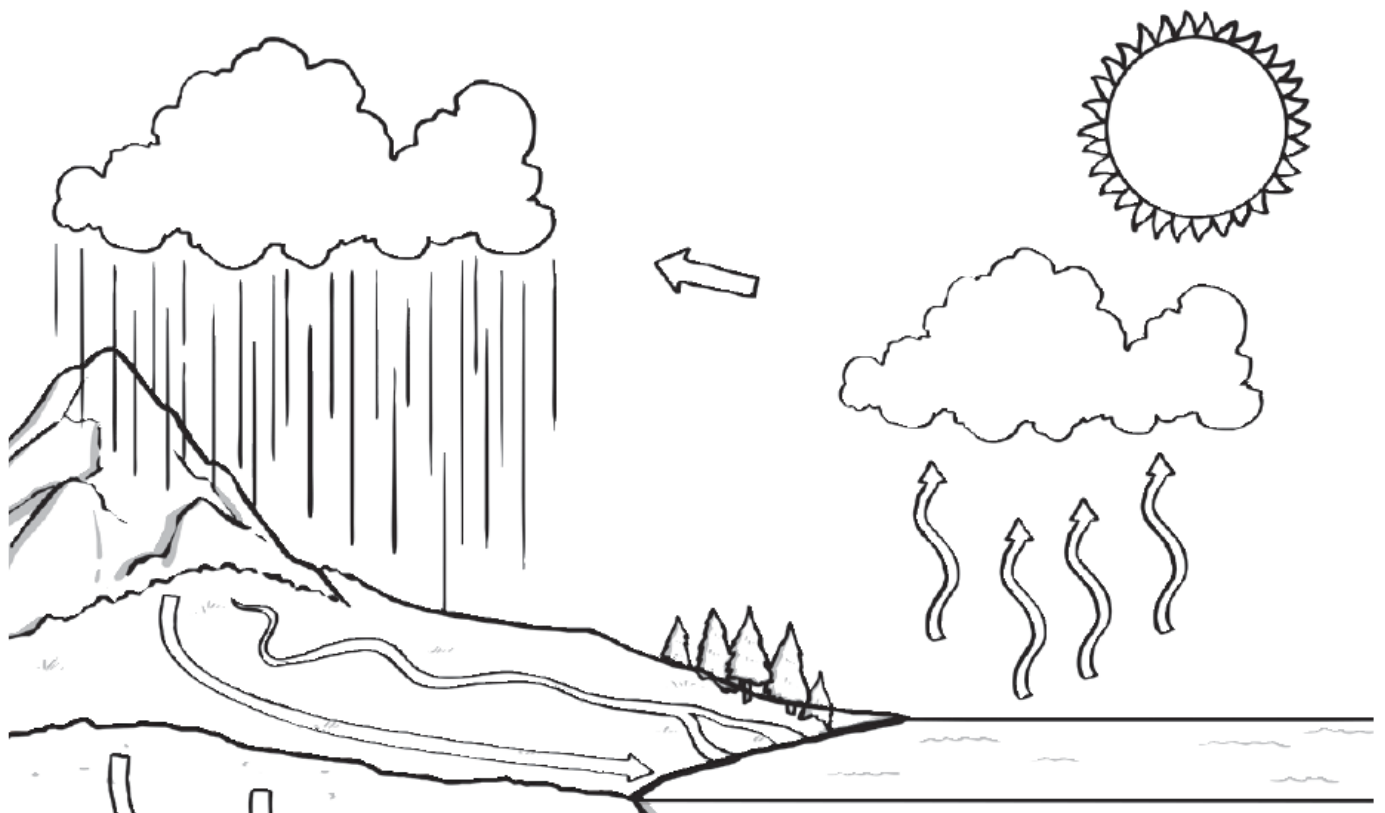
## Evaporation

Evaporation is when the sun heats up water in rivers, lakes or oceans and turns it into vapour or steam. The water vapour or steam leaves the river, lake or ocean and goes into the air. This stage is called evaporation.

## Condensation

The water vapour cools and this leads to clouds forming. However, the clouds are unable to hold the water vapour for long. As a result, rain droplets form and it starts to rain. This process is called condensation.

Eventually, the water cycle begins again.



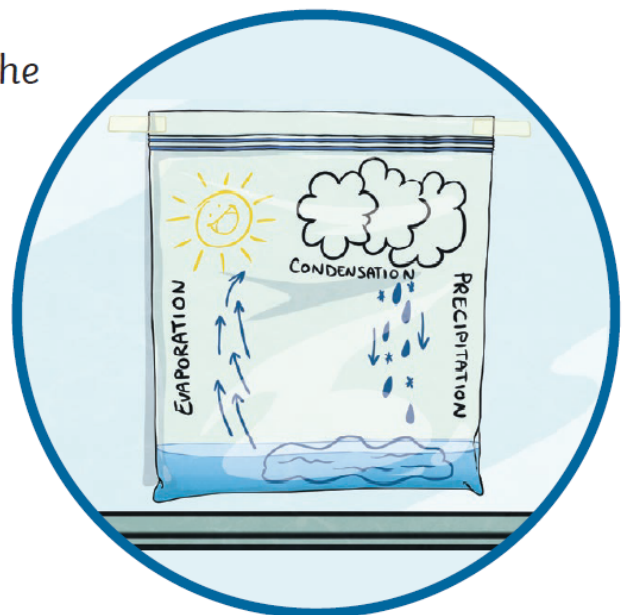
# Water Cycle in the Bag Model Activity

## You will need:

- Sealable plastic sandwich bag
- Water
- Permanent markers
- Blue food colouring
- Tape
- Window with exposure to sunshine

## Instructions:

1. On the plastic sandwich bag, draw a diagram of the water cycle. Be sure to include:
  - a. sun
  - b. clouds
  - c. water accumulation (at the bottom of the bag)
2. On the plastic bag, draw arrows and labels for:
  - a. evaporation
  - b. condensation
  - c. precipitation
  - d. accumulation
3. Fill approximately  $\frac{1}{4}$  of the bag with water.
4. Place 2 drops of blue food colouring into the water.
5. Seal the bag.
6. Tape the sealed bag onto the window. The window will need to have plenty of sun hitting it to show the process of the water cycle.
7. Allow the bag to be in direct sunlight for about an hour, then observe the process in the bag and identify the different stages of the water cycle.



# Science

## Water Cycle Experiment Record

### Prediction

I think that...

I think this because...

### Observations

I noticed that...

### Diagram