

# Rainforest Biomes

Investigation Data Sheet



## How Do Rainforests Recycle Water?

The rainforest biome acts as a giant sponge soaking up rainfall. Some of this water evaporates into the air as it is heated by the sun, while some returns to the air through plant transpiration. This moisture in the air causes rain clouds to form, and more rain falls.

### Objective

Demonstrate the vital role that rainforests play in the water cycle.

### Materials

- a medium-sized tropical houseplant with several branches
- two plastic sandwich bags
- two twist ties
- a pair of scissors
- a sunny window

**Safety Notice:** All applicable laboratory safety rules must be followed. Students should not perform any experimental activity without the teacher's supervision and express permission. Students must follow safety guidelines and wear appropriate protective gear.

### Procedure

1. Select two branches that are similar in size and have about the same number of leaves.
2. Cover one of the branches with a plastic bag and secure the bag with a twist tie. Be careful not to damage the branch or leaves! Label the bag; this will represent an intact rainforest.
3. Next, snip off all the leaves of the other branch with the scissors. Carefully place another plastic bag over this branch and secure it with the twist tie. Label the bag; this will represent an area where the tropical rainforest has been cut down.
4. Now place the plant in a sunny area.
5. After three hours, look for any changes in the plastic bags. Record your observations in the data table.

### Data Table

Plant Branch	Observation after 3 hours	Observation after 24 hours

6. Return to the plant the next day and record any changes that you observe.

- Where did the water in the bag come from?

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### Conclusions

What is climate?

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Tropical rainforests are the wettest land biome, getting between 200 and 1,200 centimeters of rain annually. If large areas of rainforest are removed, how could this affect the climate?

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What kind of impact could this climate change have on the plants and animals that live in the rainforest?

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