

The water cycle in tropical rainforests

1 Information for teachers

The students will learn that there are two different water cycles in rainforests. The goal of the experiment is to show how the local water cycle works. It should become clear that the local water cycle also takes place in temperate regions.

2 Tips for conducting the experiment

The students can conduct the experiment themselves, individually or in pairs.

Materials per person or per student group:

- 1 jar with a screw-on lid
- Several small plants
- 1 bowl (the children can fill it with water themselves)
- Soil
- Sand
- Several small stones

Make sure that the experiment is conducted on a sunny (and ideally a hot) day.

3 Observation and explanation

If the jar is placed directly in the sun, the water evaporates from the plants' leaves. The water rises as steam.

The steam cools off on the sides of the jar and on the lid and forms water droplets. The jar fogs up. The more condensation that forms, the larger the water droplets on the jar's sides and lid are. If the water drops are large and heavy enough, they will fall as "rain in the jar." The cycle starts over again.

Note: If the jar is kept closed after the experiment, the water cycle can even be observed throughout the entire school year.