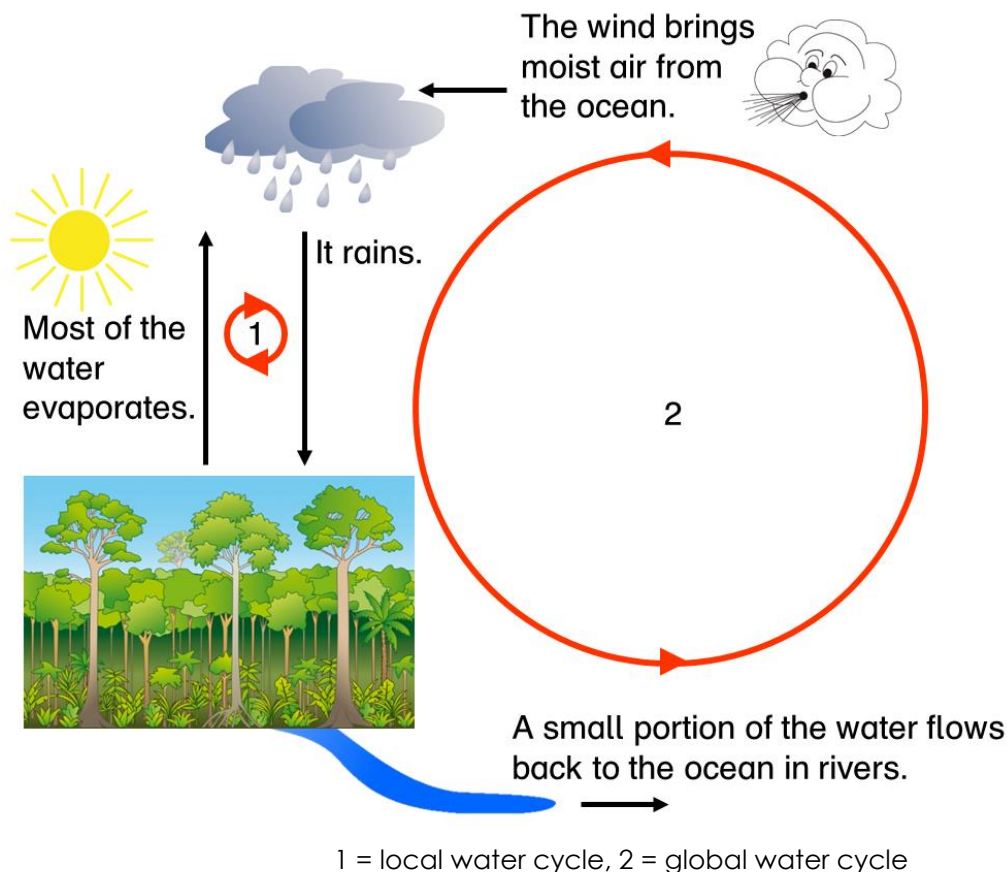


The water cycle in tropical rainforests

It rains a lot throughout the year in tropical rainforests. The rain comes from the global and local water cycles.



The global water cycle

Tropical rainforests are located very close to the equator. At the equator, the sun shines nearly straight down on the Earth during the day. As a result, the air in the rainforests heats up and rises. Cooler moist air is transported from the ocean to the rainforests by a certain kind of wind called trade winds. The cold air meets the warm air. Clouds form, and they release the water over the rainforests. Due to the thick canopy of the rainforests, rain reaches the forest floor only drop by drop. Eventually, the rain is transported back to the ocean, either quickly through the large rivers or very slowly through the ground water. The cycle starts over again.

The local water cycle

The sun also plays a key role in the local water cycle. Due to the constantly warm temperatures of around 25 degrees Celsius, water evaporates from trees' leaves. The trees cool off in this way. The evaporated water forms large clouds, which release the water again over the rainforest as a heavy downpour. The rain is absorbed again by the leaves, and after a while the water evaporates again, which starts a new cycle.

Three-quarters of the water never leaves the rainforest. This means the tropical rainforest makes its own rain.

Now we want to create a local water cycle in a simple manner ourselves. Carefully read the instructions on how to do this on the next page.

List of materials

1. 1 jar with a screw-on lid
2. A couple of small plants
3. 1 bowl of water
4. Some soil
5. Some sand
6. A few small stones



Conducting the experiment

- First put a handful of small stones into the jar, so that they cover the bottom.
- Add a layer of sand on top of the stones, and a layer of soil on top of that. Plant your small plants in the soil.
- Now place the bowl of water on the soil.
- Water the plants with a little water.
Be careful that the soil doesn't get too wet.
- Then screw the lid onto the jar and place the jar in the sun on the windowsill.
- Every hour, note down your observations in the table.
- What happens with the water? Write your explanation on the lines provided.

Worksheet

Name: _____ Class: _____ Date: _____

Observation

Time	Observation

Explanation
