

Rainforest Terrarium



Suggested Grade Level

2nd grade

Measurable Objective

Student will create a rainforest terrarium using materials provided by the teacher. Student will participate in classroom discussions.

Materials

- *The Tropical Rain Forest: A Web of Life* by Philip Johanson
- Soda bottle (one for each student)
- Gravel
- Dirt or potting soil
- Small plant
- Water
- Tape
- Scissors

Anticipatory Set

Ask the children what the main form of weather is in the tropical rain forest. They should, with some background knowledge, be able to answer this very quickly: it is rain, of course! Tell students that as a whole class, we will mimic the sounds of a rain storm, complete with sprinkling, thunder, hard rain, etc. This activity is from the Project Wet book and a description is attached to the end of this lesson.

Instructional Input

Prior knowledge: basic information about the rainforest and its climate

Procedure

1. Ask students why they think it rains so much in the rain forest.
2. Read the excerpt on “Recycled Water” in *The Tropical Rain Forest* by Philip Johansson. Explain to students that the tropical rain forest, literally, recycles its water and “creates” its own rainy climate.



3. Tell students that this process begins when water on the forest floor and in the leaves of plants and trees heats up and changes from liquid water into a gas called water vapor. Does anyone know what special name we give to the process of something turning from a liquid to a gas? If no one knows, tell students that this special name is called “evaporation.” Ask students if they can think of other examples of when evaporation takes place. Example: rain puddle dries up.
4. After the liquid water “evaporates,” it turns into water vapor. Water vapor travels higher into the atmosphere to form clouds over the forest. With an average of 6 feet of rainfall per year, it is hard for these clouds to hold all the moisture of the forest. When a cloud cannot hold any more moisture, or water vapor, it releases it, causing it to...ask students if they know what happens when the cloud can no longer hold any more moisture. It rains!
5. Explain to students that this process repeats over and over and over again, causing it to rain every day in the rain forest, and in many cases more than once per day.
6. Tell students that we will be creating our own mini-rainforest. After making their rain forest, they will get to take it home and observe it recycle its water. They won't even have to water it for a very long time! Ask students what they think will happen within their mini-rainforest. Teacher may have to explain “condensation” and how the water in their mini-rainforest will evaporate and form condensation on the top and sides of the soda bottle. This water will then drip back down to their plant and water it. Compare this process of condensation to how the cloud cover has to release excess moisture.
7. Provide students with the materials needed to create their terrarium. Walk them through, step by step, how to create their mini-rain forest. Be sure that you are creating one too, as you are explaining it to the students.
8. After completing the terrarium, ask questions to review the lesson, such as what evaporation is and how the terrarium compares to the real rain forest.

Check for Understanding

This occurs when teacher asks students questions about the lesson to review.



Modeling

This occurs when teacher actively participates in the project and walks students through the process of creating a terrarium.

Guided Practice

This occurs when the students and teacher discuss different aspects of the rain forest and its rainy climate.

Independent Practice

This occurs when students, with teacher assistance, create their own, individual terrarium.

Closure

After students complete their terrarium, allow them to decorate the outside of the soda bottle in a rainforest theme. They can draw animals, etc. to make their terrarium personal. Allow students to share their individual terrarium with the rest of the class.

Evaluation

- Did the student participate in class discussions?
- Did the student create their own, individual terrarium?

Literature Response Activity

Kratter, P. (2006). *The Living Rain Forest*. Massachusetts: Charlesbridge Publishing, Inc.

This book is an alphabet book that names a living thing in the rain forest for each letter of the alphabet. This alphabet book can be used with older children, too, because the book also gives detailed information on all the animals/plants, etc.

Activity: Have students create their own alphabet book. For a challenge, have them write an additional ABC's of the rain forest, using different animals and plants than the book used. Other options include letting students write the ABC's of other topics, such as other themes used in the classroom (ex. Community Helpers, Deserts, etc.). They could also do the ABC's of the school or their own interests and hobbies. Have children illustrate and display their books for their peers and other visitors to see.

The Rain Storm

(From Project Wet: Curriculum and Activity Guide)



Ask students to stand in a semicircle in front of you. Explain that when you make eye contact with or point to a student, he or she should imitate your motion. The student should continue making the motion until you make eye contact again and show a new motion. Start with a student on one end and begin the first motion. Continue the motion as you make eye contact with each student down the line. Return to the first student and start the second motion. This will create a crescendo as the sounds produced move from one end to the other. Using this strategy, lead students through the following series of motions:

- Rub your hands together
- Snap your fingers
- Clap your hands together in an irregular cadence
- Slap your hands on your legs
- Stomp your feet
- Slap your hands on your legs and stomp your feet
- Stomp your feet
- Slap your hands on your legs
- Clap your hands together in an irregular cadence
- Snap your fingers
- Rub your hands together
- Open palms (quiet)

*Lesson plan compiled by Shannon Bilyeu, an Earth Team Volunteer and Early Childhood Education student at Missouri State University, Springfield, MO.
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