



Healthy Ecosystem Jar:

1. Materials Needed:

- Two large glass jars or clear plastic bottles
- Natural gravel or stones from a nearby location
- Soil from the ground
- Native plants, such as small ferns, mosses, or grasses
- Water from a local stream, pond, or collected rainwater
- Natural decomposers like worms or small insects found in the area

2. Instructions:

- Collect a layer of gravel or stones and place it at the bottom of the first jar for drainage.
- Scoop soil from the ground and add it on top of the gravel.
- Harvest some native plants and plant them into the soil.
- Add water to the jar, ensuring the soil is moist but not flooded.
- Gently introduce decomposers and small insects into the jar.
- Seal the jar and place it in a spot that receives natural but indirect sunlight.

3. Observation:

- Encourage students to observe the ecosystem daily.
- Discuss the natural cycles they see, such as the water cycle and life cycles of the plants and animals.

Unhealthy Ecosystem Jar (Optional):

4. Materials Needed:

- Same as the healthy ecosystem jar, but include elements that would naturally disrupt the balance, such as excess organic matter or an imbalance in species.

5. Instructions:

- Follow the same steps as the healthy ecosystem jar, but introduce factors that would naturally create an unhealthy ecosystem, such as not including plants, or using a non-native plant

6. Observation:

- Have students observe and note the differences between the two ecosystems over time.

Discussion Points:

- The impact of environmental changes on an ecosystem's health.
- The role of biodiversity in maintaining ecological balance.
- The effects of human activities on natural ecosystems.

This activity will help students appreciate the complexity of ecosystems and the importance of each component within them. It's a great way to bring the outdoors into the classroom and foster a hands-on understanding of environmental science. Enjoy your ecological exploration!

Feel free to change any part of this activity to meet the needs of your course.