

# **The Influence of Dynamics on a Biome**

## **5<sup>th</sup> Grade**

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### **References:**

Columbus Metro Parks SEED Program

### **Benchmarks:**

Benchmark C: Compare changes in an organism's ecosystem that affects its survival. Life Sciences 4-6

### **Objectives:**

Students should be able to identify positive, negative and neutral dynamics and predict their affects on their terrarium.

### **Materials**

Terrariums from SEED program  
Motor Oil  
Vinegar (Acid Rain)  
Shampoo (soap)  
Salt water

### **Initial Observation/Demonstration:**

The students have been making observations and measurements of the grass in their terrarium. Each group will pick a number that corresponds to one of the "dynamics" that will be added to their terrarium. They will observe the material, write their observations in their science journals, and then make predictions of what the dynamic will change.

### **Initial Observations:**

Students will record initial short term change in terrarium. They will continue to make observations and record every day for 4 days.

### **Initial Model:**

Students must hypothesize what type of effect the dynamic will have (beneficial for biome, neutral for biome or harmful for biome) and explain why.

**Procedure:**

Each group will add their dynamic to their terrarium and record their initial observations. The students will then rotate to view and record the initial affects of the dynamic on all terrariums and make predictions. For example, how long does the dynamic take to begin harming the environment? At what point has the dynamic completely ruined the terrarium? Can we revive the ecosystem?

**Discussion/Summary:**

The students should find that most of the dynamics were extremely harmful for their terrarium. After the dynamic destroys the grass, they will record real life examples of these dynamics that are beneficial for humans, but harmful for the environment. Each group will also hypothesize and record one dynamic that would be beneficial for the environment based on what they have learned regarding harmful dynamics.