

QUICK LAB**● How Can You Model Succession?**

You can create a small ecosystem and measure how organisms modify their environment.

Materials

1 qt glass jar with a lid, one-half quart of pasteurized milk, pH strips

Procedure

1. Prepare a table like the one below.
2. Half fill a quart jar with pasteurized milk, and cover the jar loosely with a lid. Measure and record the pH. Place the jar in a 37°C incubator.
3. Check and record the pH of the milk with pH strips every day for seven days. As milk spoils, its pH changes. Different populations of microorganisms become established, alter substances in the milk, and then die off when conditions no longer favor their survival.
4. Record any visible changes in the milk each day.

DATA TABLE		
Day	pH	Appearance
1		
2		
3		

Analysis

1. Identify what happened to the pH of the milk as time passed.
2. Infer what the change in pH means about the populations of microorganisms in the milk.
3. How does this model confirm the model of succession in Glacier Bay?