Final Performance Assessment:

Bottle Biospheres

***Essential Question: What components are necessary to create a self-sustaining ecosystem?***

**INSTRUCTIONS:**

You will create a self-contained biosphere/ecosystem using everyday materials that will include both biotic and abiotic factors. To demonstrate your mastery of how ecosystems have a delicate balance of biotic and abiotic factors that depend on one another, you must design a bottle biosphere that is self-sustaining. You will also need to communicate about the various components of your ecosystem, including the levels of organization, trophic levels, description of how energy is being transferred among your ecosystem, and a visual representation of your food web.

**PRODUCT:**

A bottle biosphere with an ecosystem that can survive through student-led conferences (10/26- 10/31).

**Materials that will (most likely) be available to you:**

2 liter bottles

Soil

Rocks

Water

Tubing

Packaging tape

**Biotic Factors that may be available to you:**

 \*RESEARCH ALL OF YOUR BIOTIC ITEMS SO THAT YOU ARE ABLE TO MAKE INFORMED CHOICES ON WHAT TO PUT IN YOUR BOTTLE BIOSPHERE. \*

Pinto bean plant

Duckweed

Amphipods

Isopods

Goldfish

Darkling Beetles

Pond Snails

Elodea (Anacharis)

**How to create your Bottle Biosphere:**

