Bottle Biosphere!

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Who are your group members? List them here:**

**THINKING THROUGH YOUR PLAN:**

What abiotic factors do you plan to use?

What biotic factors do you plan to use?

Draw your food web complete with the flow of energy:

Draw your Energy Pyramid showing the Trophic Levels and levels of consumers (producers, primary consumers, etc.) Identify the producers, decomposers, herbivores, omnivores, and carnivores using the letters **P, D, H, O** and **C**.

**DESIGN**

Use this entire page to create a very detailed drawing of your bottle biosphere. Then, label all biotic and abiotic parts and be sure to include quantities.

**COMMUNICATE**

What are the strengths of your design? List three and give reasons to support your answers.

1.)

2.)

3.)

What might go wrong with your design? List three possibilities and describe in detail. (Good example: “I may have challenges with both of my goldfish surviving because they might not have enough space and if the elodea does not survive, then the goldfish will not have food.”)

1.)

2.)

3.)

What should the group do if something goes wrong or doesn’t work? At what point do you as a group give up?

What needs to happen to make your bottle biosphere sustainable? Be very specific.