**Biosphere Differentiation Stations**

**Station 1: Read It! Food Webs and Survival Relationships**

Read the passage and answer the questions below.

1. Explain a situation where two organisms might compete for the same abiotic resource.

2. What group of organisms is critical to the survival of all ecosystems? Why?

3. Why do the best parasites not kill their host?

**Station 2: Watch It! Biomes, Energy Pyramids, and Biodiversity**

Go to <https://www.youtube.com/watch?v=qtZcN4bzsrA> and answer the questions below.

1. Describe what a biome is and provide some factors which help determine the biome.

2. List 3 biomes discussed in the video and characterize one of them. Include the terms vegetation, climate, location, and several organisms from the biome.

Go to <https://www.youtube.com/watch?v=7tgNamjTRkk> and answer the questions below.

1. What factors contribute to biodiversity?

2. How did the concept of biodiversity originally gain traction in the scientific community?

3. List the 5 categories that help answer the question, “Why is biodiversity important?”

Go to <https://www.youtube.com/watch?v=-oVavgmveyY> and answer the questions below.

1. Where does the arrow point in a food web? Why?

2. Which level of the energy pyramid has the most energy? Which level has the least?

3. What is the role of decomposers in the ecosystem? Where would they be at on an energy pyramid?

4. How much energy is transferred from one trophic level to the next?

**Station 3: Illustrate It! Energy Pyramids**

Cut out and place the labels in the correct location on the blank energy pyramid.

**Station 4: Write It!** Apply what you have learned today by answering the questions below:

1. Why is biodiversity important to the stability of food webs?

2. Explain how the removal of one species could change the biodiversity of an ecosystem.

3. Why do tertiary consumers need to eat so much food to stay alive?