

Beach Field Trip Questions

1. Construct a food web for the beach in one of the following ways.
 - One complete food web for the entire area of the beach
 - Two separate food webs – one for the Rocky Shore and one for the Salt MarshInclude as many organisms as possible in your food web.
2. Construct 6 food chains and explain the role of each organism involved.
3. What are the producers in this community? Which seem to be the most important and abundant? Why?
4. What are the consumers in the community? Classify these as herbivores, carnivores, scavengers, and filter feeders.
5. Describe 8 niches. Remember a niche is how an organism lives. These are to be ½ a page in length minimum and must come from another source other than your field manual. Remember to cite your references correctly.
6. a) Present the results of your quadrant analyses on the rocky shore graphically. You may want to use the following link to create your graphs
<http://nces.ed.gov/nceskids/createagraph/default.aspx>

AND

- b) Draw a diagram of the Rocky Shore showing zonation pattern and the distribution of organisms in these zones.
7. Present and explain the results of both the gem clam transect line and the barnacle transect line. The graphs can be done as part of question # 1.
8. Explain at least 4 examples of symbiotic relationships found at this beach.

For questions 9, 10, and 11:

Do any three (3) of the following Chemistry/Physics related questions:

- a) How does the size of an organism determine its ability to move through water as a fluid?
- b) What are the differences between salt and fresh marsh? Do they mix well? Can most organisms adjust to the mixing?
- c) How is the color of seaweed related to their depth in the ocean and their ability to absorb light?
- d) How can osmosis and diffusion explain the movement of substances in and out of the aquatic organism?
- e) Give and explain some biological responses of organisms at the beach in relation to light.
- f) Explain the chemical and economical importance of Irish moss.