

CCE LTER- Introduction to Oceanic Food Webs (Day #2)

Teacher: Mrs. Jennifer Ogo: Kearny High School SCT

Date: January 2013

Previous Lesson: CCE LTER- Blog Webquest

Title: Phytoplankton Growth and Oxygen Production in the California Current- Day #2
Introduction to Spectrophotometry

Subject / grade level: Marine Science, Marine Biology, Biology or AP Environmental Science- High School

Materials: handouts, poster paper, markers,

Lesson objective(s): Students will be able to correctly draw an oceanic food web and describe the interactions between organisms in this food web. In addition, students will understand the connection between food webs and trophic levels. This lesson serves as a great introduction to the unit.

Differentiation strategies to meet diverse learner needs:

Students will read the introduction paragraph aloud as a class and then work in small groups to be able to help each other and collaborate on their marine food web posters.

ENGAGEMENT: The teacher should pass out the front page (*introduction paragraph*) and read aloud with the students, clarifying/highlighting as it is read.

What kind of questions should the students ask themselves after the engagement?:

How do the organisms interact and depend on each other in the marine food web?

EXPLORATION

Describe what hands-on/minds-on activities students will be doing:

The students will read the handout with their groups. The teacher should hand out a highlighter and have students highlight all of the new vocabulary. In addition, the students will create a marine food web from the reading.

List “big idea” conceptual questions the teacher will use to encourage and/or focus students’

exploration: The big idea concept that the teacher will use is the idea of *connectivity and interdependence*

EXPLANATION

Student explanations should precede introduction of terms or explanations by the teacher. What questions or techniques will the teacher use to help students connect their exploration to the concept under examination? Students will use the reading passage to build a marine food web- as a group. They will then use the marine food web that was created in order to answer the attached questions. After allowing groups to complete their food webs, teacher should allow students to share their food webs with other groups. This can be accomplished by doing a gallery walk (*students post their food webs and walk around to observe all group food webs*)

ELABORATION

Describe how students will develop a more sophisticated understanding of the concept:

After doing the gallery walk, students will create a trophic level pyramid that connects to the marine food web posters that were created. Teacher will go over the results and get feedback from the class.

EVALUATION

How will students demonstrate that they have achieved the lesson objective?:

Students will use the marine food webs, the trophic level pyramids and the information from the class and group discussions to be able to answer the questions attached.