

Ocean Fair

Summary

Students will research a biotic organism from the ocean and create a tri-fold board or poster presentation about it. They will learn about its place in its ecosystem and how abiotic factors in the ocean such as salinity, depth, tides and water temperature affect the organism.

Main Core Tie

Science - Earth Science

[Standard 4 Objective 3](#)

Time Frame

3 class periods of 60 minutes each

Group Size

Individual

Materials

- [student sheets](#)
(attached)
computer lab
library
poster board for any student unable to get their own
seaweed (available at most grocers for use as a wrapper for sushi)
- [In-class assignment sheet](#)
(attached)

Background for Teachers

Objective:

Students should gain a greater understanding of a marine organism and a marine ecosystem. They will also better understand the influence abiotic factors can have on marine biota.

Time needed:

Student Prior Knowledge

Students should understand energy flow in food webs. They should also know what an ecosystem is. A basic understanding of salinity, depth, tides, and water temperatures would also be helpful. This specific information can be difficult to find.

Instructional Procedures

Make enough copies of the student sheets for all of your students. Make one overhead copy.

2. Hook:

Obtain some seaweed from a grocer. As students enter the classroom give them a small piece. Challenge the students to each eat their portion. Then tell the students some interesting things about Kelp (algae/seaweed).

There are more than 25,000 species of algae, all of which contain chlorophyll. The tiniest algae are single-celled, and are so tiny that millions can exist unseen in a gallon of water. Of

the largest algae are the giant Kelp, seaweed which can reach 200 feet in length, some being able to grow 150 ft in just one year!

There are underwater forests of seaweed in the ocean that provide homes and food for sea life.

Besides sustaining sea life as a food source, many products have been developed from algae, including: foods, antibiotics, soaps, adhesives, gels, and abrasives used in polishing (such as toothpaste).

Did you know that one of your favorite foods is probably Kelp seaweed with chocolate sauce on it? You don't believe it? If you look up "seaweed" in your encyclopedia, it will tell you that Kelp is full of vitamins and minerals, but its primary value is as a source of algin, which is used to thicken ice cream and other products. You do like chocolate sauce on your ice cream, don't you?

Pass out student sheet to students.

Let students read through the project and ask any questions that they might have.

Give students the due date for the project. Be sure everyone writes the date on the top of the papers.

It is important that all projects be in class on the due date because the Fair will be set up similar to a science fair. Students will set up their projects in the classroom and will present them to you.

As student's research, be sure to encourage them to choose something unique that they don't know a lot about. Also be sure they are being specific. E.g. "Tiger shark" instead of "Sharks."

On the day of the project have the students fill out the "Ocean Fair In Class Assignment" (attached).

Grade the projects in class as students present them to you.

Assessment Plan

Sample Scoring Guide:

See attached student sheet.

Bibliography

Lesson Design by Jordan School District Teachers and Staff

Authors

[Utah LessonPlans](#)