

The Tragedy in the Commons

Summary

Students model an ocean ecosystem and see how humans affect the number of fish over a period of years. Students must work as a class to find an equitable solution for all the countries represented.

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

- box of 600 toothpicks
- [student sheet](#)
(attached)

Background for Teachers

In the old English system, a commons was a central area where everyone in a village could graze their livestock. The sea is a commons, also. Countries with a seacoast can claim a 200 mile section of the sea as their jurisdiction but laws vary from country to country what can be done in this area. Some countries like Japan and the USA (in Alaska) overlap on their territory and occasionally "fish wars" have started over competition for fish. Fishing has had to be drastically reduced in the some parts of the world. An excellent article to support this activity is "Twilight of the Cod" in *National Geographic*.

Instructional Procedures

Divide students into groups of 4. Have them pick a name for their "nation".
Make a grid on the board or an overhead that looks like this:

Read the directions on the student sheet to the students. Discuss what a "commons" is.
Ask students if they want to set up any rules before the game begins. If so, the rules must pass by a majority vote.
Scatter the toothpicks evenly around the floor of your room.
Say go and watch out for rule breakers. You may want to appoint a fish sheriff or students may think of that.
Allow students to vote on new rules after each round.
Have students count the toothpicks in between rounds. Add more fish anywhere on the floor that there are fish remaining. Do not be surprised if all the fish are fished out of the ocean in a couple of rounds.
If time allows, let the students play a second time.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)