

GlobalTribe Educational Curriculum

Philippines Lesson: Coral Reefs and Fishing Practices

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www.pbs.org/globaltribe

GlobalTribe is a PBS series that combines the spirit of travel with a meaningful exploration of the global issues that affect us all. On our journeys to remote corners of the world, we seek to understand in human terms the universal struggles of our planet: from healing racial wounds to saving the environment to improving the lives of the poorest among us. Our quest is also to find solutions and to meet the unsung heroes in every country who offer us hope and a path to a better tomorrow.

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Introduction / Pre-viewing

1. Provide students with the following details one by one and ask them to guess the country being described:
 - This country experiences cyclones, landslides, earthquakes, tsunamis, and destructive volcanic action.
 - 83% of the population is Roman Catholic.
 - This country gained independence from the United States on July 4, 1946.
 - 40% of people in this country live on less than a dollar a day.
 - It is comprised of about 7,100 islands.
 - The aboriginals of the islands are called the Aetas and are a pygmy people.
 - There are approximately 70 distinct indigenous languages in use throughout the country.
 - The navigator Ferdinand Magellan was killed while trying to lay claim to the islands in the name of Spain. Spain eventually controlled the islands for nearly four centuries.

Once you have divulged that the country in question is the Philippines, ask students which of these facts surprise them. What comes to mind when they think of the Philippines? What are they curious to learn about this country now?

2. Ask students if they know where their garbage goes? If you have a landfill near your town, have they been to it? If so, ask about the sights and smells of that place and whether they could imagine living near it.
3. If you have a student or faculty member who has been snorkeling or scuba diving, especially around coral reefs, ask them to describe the experience to the class.
You might also visit:
<http://www.nationalgeographic.com/ngm/0101/feature2/zoom1.html>. Talk briefly about the value of coral reef using some of the information available at:

As a class, make a list of examples of aspects of indigenous cultures that the students know to have been lost or are in danger of being lost. This might include various Native American languages or Appalachian folk songs. Then have students write in their journals about how such information as language, arts, and stories are passed down from generation. What can break the chain of communication from one generation to the next? Why are these traditions valuable?

Coral Reefs and Fishing Practices

Objective: Students will gain a greater understanding of coral reefs, their current state and their value. They will explore their own seafood eating habits and learn why some fish and shellfish are more environmentally responsible choices when ordering food.

Time: Lesson can be adapted to between 2-5 in-class hours.

Grade Level: 9-12

1. As a class, discuss what you know about coral reefs and make a list of what you'd like to learn. Some possible questions include: How are reefs formed? Are they really in danger? Where do they exist? What benefits do they serve? Working in groups or alone, have students find answers to these questions and report back to the class.

Ask students to write down any fish they can recall having eaten in the past six months. If students don't eat fish, they might write down kinds of fish they know others eat, such as tuna. Compile a class list.

2. Print out Seafood Wallet Cards for the students (http://www.audubon.org/campaign/lo/seafood/seafood_wallet.pdf), and go through the class, rating their fish selections. Are there any surprises on the list? What information might they ask in the future before eating fish (e.g., is the salmon from Alaska or is it farmed?).

Assign pairs of students to investigate how a fish in the orange and red sections came to be "depleted, overfished, or poorly managed." They should also include information about the fish, such as its habitat, the method(s) most commonly used in catching it, an image of the fish (hand drawn or copied from another source, and a fun fact about it. Present the information on posters.

Assessment

After having students spot fact check each other's posters, share the posters with a public audience. Students might give presentations to other classes or to a lower grade school, for example. Ask students to write a final reflective journal entry about how the economics of fishing and buying fish interrelate with the well being of various fish populations. Look for ways in which the class' research appears in their answers.

Extending

1. Become involved in a campaign to save coral reefs. Have students write letters and plan ways to raise awareness among their peers. If you live far from the ocean, you might consider places in your town that are still related to coral reefs, such as a store selling exotic fish for aquariums.
2. Bring local fishing experts to your class or send students out to meet with them. Talk to fishermen, fishmongers, department of natural resources personnel, and others about their views on fishing.

3. Have students produce their own versions of the seafood wallet card and disperse them.
4. Challenge students to find out what kind of fish is served in the lunchroom and where it came from. If they don't feel comfortable with it, what can they do to change situation?
5. Read and discuss *Cod: A Biography of the Fish that Changed the World* by Mark Kurlansky.

Resources

Coral Reefs

Colorful Coral Reefs

http://www.mbayaq.org/efc/efc_se/sz_colorful_coral.asp

An Introduction to Coral Reefs

<http://www.uvi.edu/coral.reefer/>

The Nature Conservancy's Coral Reef Facts

<http://nature.org/joinanddonate/rescuereef/resources/index.html>

Coral in Peril

<http://www.nationalgeographic.com/ngm/9901/fngm/index.html>

The Cousteau Society's Coral Reef's page

http://www.cousteausociety.org/tcs_issues_coralreefs.html

World Atlas of Coral Reefs

Mary Spalding, Corinna Ravilious, et al.

The Enchanted Braid: Coming to Terms with Nature on the Coral Reef

Osha Gray Davidson

Seafood

Seafood Watch: Choices for Healthy Oceans

<http://www.mbayaq.org/cr/seafoodwatch.asp>

Seafood Lover's Guide

<http://www.audubon.org/campaign/lo/seafood/>

Standards

Understands how human actions modify the physical environment

(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=8&StandardID=14>)

Understands global development and environmental issues
(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=8&StandardID=18>)

Understands the changes that occur in the meaning, use, distribution and importance of resources
(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=8&StandardID=16>)

Understands relationships among organisms and their physical environment
(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=2&StandardID=6>)

Understands how participation in civic and political life can help citizens attain individual and public goals
(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=14&StandardID=28>)

Gathers and uses information for research purposes
(<http://www.mcrel.org/compendium/Benchmark.asp?SubjectID=7&StandardID=4>)
