every drop counts

Water We Eating?

At home activity for children

Objectives?

Participants will (1) identify foods derived from aquatic sources and their geographic origins, and (2) describe the importance of aquatic environments as food sources.

Method

Participants visit a local supermarket and compile a list of products that originate in aquatic habitats.

Background

Aquatic ecosystems (oceans, estuaries, marshes, lakes, rivers, etc.) provide humans with a variety of products, including fish, shellfish, and wild and domestic rice. Other products, such as fertilizer, soup stock, watercress, water chestnuts, and ingredients for vitamins, are not as well known. Seaweed is a source of algin, carrageenan, and agar, which are used as stabilizers, thickeners, and emulsifiers in hundreds of food products. Those seaweed derivatives are used to smooth the textures of things like ice cream and to make them creamy. They help to keep ingredients like the chocolate in suspension in chocolate milk. Certain types of seaweed, which are actually forms of algae, are consumed directly by humans. The meat in oysters is eaten directly by humans, while the shells are ground up for use as calcium supplements for humans and poultry.

Aquaculture is another source of aquatic food products. Aquaculture is an ancient form of cultivating aquatic plants, fish, and shellfish for food. In the United States, aquaculture produces perhaps as much as 99 percent of the rainbow trout consumed in the United States. Catfish, lobster, shrimp, oysters, and salmon are all examples of aquatic animals being raised commercially through aquaculture programs. The hatching and raising of aquatic animals or release in streams, lakes, and oceans are also considered forms of aquaculture.

Procedure

1. Before going to the store, have children make a list of all the things they would expect to find in a supermarket that come directly form an aquatic environment. Be inclusive- everything from ocean to pond and from swamp to river is

appropriate. Also, design a form to record participants' observations while at the supermarket. This form could be as simple as a place to record the products, to a more detailed form that includes where the product is manufactured, its exact ingredients, and so forth.

2. Visit the supermarket and complete the observation forms.
3. After the trip, compile a master list of aquatically derived products. Answer the following questions (some research may be needed): Where do the products come from? How are they obtained? Where and how are these products processed? How are they used?
4. On a world map, locate the country of origin of as many products as possible on the list created.
5. Ask the children to draw a picture of the aquatic food products they most like to eat, or to make a collage of such products from magazine pictures.
6. Summarize the lesson by asking the children: How do our lives depend on aquatic environments? What do aquatic environments provide us with? What do aquatic environments provide for wildlife?

Technology Connections

- Use the internet to research aquaculture and foods that derive from aquatic sources.
- Use the internet to research the route that an aquatic food takes to get to the local supermarket. What are positive and negative effects of transporting the food to the market- for the environment, for the local economy and/or for the economy of the region of origin?
- If unable to visit a physical grocery store, visit one online!

Evaluation

1. Identify five foods derived directly from aquatic sources. List their country or region of origin.
2. Identify an aquatic plant or aquatic animal that you can find in a local store and that is also found growing or living in your state.
3. Identify an aquatic product that is used in food production but is not necessarily eaten directly. How is it used?
4. Describe three ways that aquatic habitats are important to humans as sources of food.

**Write up by Marisa Sedlak. This activity was adapted from the Project WILD Aquatic K-12 Curriculum and Activity Guide.