



Why Are the Oceans Important?

The oceans are more important than you think. Without oceans there would probably be no life on Earth. There are many ways the oceans and atmosphere work together to support living things.

Living things must breathe oxygen. This oxygen comes from green plants. Most of the oxygen – about 90 percent – comes from microscopic sea plants and algae called phytoplankton.

There is another way in which oceans and the atmosphere work together. Water evaporates from the oceans to form clouds. The clouds move over land. The moisture leaves the clouds in the form of rain or snow. Then, the plants and animals get the water they need.

Oceans give us food – fish, shellfish and seaweed are harvested from the oceans. Oceans give us oil and gas. Large deposits of these fossil fuels have been found under the ocean. Oceans give us minerals. Oceans are salty and supply us with common table salt. All of the other known minerals are found in seawater and can be taken out by evaporation.

Watch the video “Trash on the Spin Cycle” found at <http://www.pbs.org/kqed/oceanadventures/educators/>

Answer the following questions:

1. What are some of the items Jean-Michel Cousteau found on the beach on Laysan Island? _____

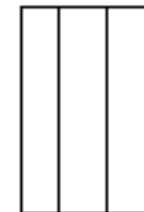
2. Where did these items come from? _____

3. How does garbage wind up on the beaches of the Northwestern Hawaiian Islands? _____
4. What kinds of trash are most likely to become marine debris? _____



Human Impacts Project

Materials: Our Ocean Rummy Cards, scissors, glue, construction paper 11 x 18



What To Do:

1. Divide the construction paper into three columns as shown in the picture.
2. Title the first column OCEAN SYSTEMS, the second column HUMAN IMPACT and the third column CONSEQUENCES.
3. Cut out the Ocean Systems cards and glue them into column 1. If you don't have the long construction paper you might need to use the back, too.
4. Cut out the Human Impact Cards and match them with the Ocean System that might be affected by this activity.
5. Cut out the Consequences Cards and match them with the Ocean System and Human Impact Cards.
6. Glue Human Impact Cards and Consequences Cards in a line to show what Ocean System might be affected.
7. Hang your project around the room and walk around to see what other groups have done.

Name _____ period _____

EXIT TICKET

Why are the Oceans Important?

1. Where does most of the oxygen we breathe come from?

- A. giant redwood trees
- B. The Amazon rainforest
- C. phytoplankton in the ocean

2. Why are clouds important?

- A. They give us shade
- B. They allow rain to move from ocean to land
- C. They carry pollution away

3. Which of the following does NOT come from the oceans?

- A. wood
- B. food
- C. minerals

4. What ocean system might be affected by burning fossil fuels?

- A. oxygen production
- B. marine life
- C. both of the above

5. What consequence might be a result of trash pollution?

- A. ocean acidification
- B. garbage patches
- C. human displacement

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