

Name \_\_\_\_\_

Date \_\_\_\_\_

## **Environmental Issues**

The land on continents is divided into nations and is controlled by the laws enacted by these nations. Who owns the ocean? No one owns the ocean; it is a part of the earth that belongs to all people. There is a centuries old philosophy that ships can sail anywhere on the ocean and that no one can own parts of the ocean. This is called the Freedom of the Seas Doctrine or the Law of the Sea. Meanwhile, international law allows countries that border the ocean to control the ocean three miles from shore; these are called territorial waters. Ships on the ocean fly the flag of their home country and are governed by the maritime laws of that country.

The ocean covers seventy-one percent of the surface of the earth and it is easy to believe that it is limitless and indestructible. Yet we know from experience that human endeavors are capable of harming the environment in far-reaching ways. Advocacy groups monitor the health of the ocean while governments recognize threats to the ocean by passing laws to prevent further pollution and destruction of marine habitats. There are several key areas of environmental threats to the ocean that are current problems.

### **Overfishing**

Seafood is a major source of food for people around the world. It is often an inexpensive food source because the catch is "free" – it is available for the taking without requiring an investment to raise it. It has been a long-time maritime tradition that fishing vessels can roam the seas and harvest fish anywhere in international waters. International waters are defined as all parts of the ocean outside the three-mile limit that defines territorial waters.

In many respects, fishing in the ocean is an unregulated activity; there are no universal laws that control fishing. As the world's population has grown, more fish are being caught each year as a food source, resulting in overfishing. Overfishing means more fish are being caught per year than can be replaced, resulting in a decline in the fish population. Continued decline in the population of a species, of course, leads to endangered species and ultimately, extinction.

International cooperation reversed the decline in the whale population that had been caused by overfishing for whales in the nineteenth and early twentieth centuries. There are international agreements in place that limit the catch of some

Name \_\_\_\_\_

Date \_\_\_\_\_

species of fish. These past successes point to the possibility of preventing the loss of fish species from the ocean.

A related problem that comes with overfishing is the destruction of non-food species while fishing. Fishing nets do not discriminate by species and thousands of tons of non-food fish and other sea creatures are killed each year as collateral damage. For example, dolphins can be killed by tuna fishing. Public awareness campaigns launched by advocacy groups caused American tuna companies to force their tuna suppliers to change fishing equipment and techniques to eliminate side effects on the dolphin population. Successes like these show that ocean species can be preserved.

### **Shipping Pollution**

Even in the 1970s, vessels sailing on the ocean dumped raw sewage, garbage and other debris in the ocean. Passengers and crew on trans-Atlantic crossings regularly reported piles of floating human debris, the result of years of polluting the water. Now there are strict environmental laws in place prohibiting the dumping of wastes into the ocean, both from onshore sources and sailing vessels. Modern cruise ships are examples of self-contained systems that recycle wastes into fuel and clean their water using sophisticated techniques.

A main threat of pollution in the ocean is oil drilling and transport of oil in tankers. When the Exxon Valdez tanker ship ran aground in Prince William Sound, Alaska in 1989, it spilled over 10 million gallons of crude oil into Alaskan waters and onto shore in just six hours. Along with transport problems, there are potential environmental impacts of oil drilling platforms that are located in the ocean. What kind of environmental disaster could occur with a major accident at one of these facilities?

### **Dead Zones**

A United Nations Environmental Program report issued in 2004 identified 150 dead zones in the ocean. A dead zone in the ocean is an area that lacks sufficient oxygen to support marine life. These dead zones range in size from a square mile to 45,000 square miles. Dead zones are caused by nitrogen runoff from farm fields that have used chemical fertilizers. The excess nitrogen enters local rivers and stream and is subsequently carried to the ocean. Plankton and other algae

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

proliferate with the nitrogen fertilizer as a food source and this excess of algae uses up the available supply of oxygen. One of the worst dead zones in the world is in the Gulf of Mexico where the Mississippi River empties into the ocean, carrying fertilizer residue from the vast farming areas of the American Midwest.

Name \_\_\_\_\_

Date \_\_\_\_\_

Circle True or False after analyzing each of the following statements.

1. True False The Freedom of the Seas doctrine means that passengers and crew aboard a ship have the right to free speech.
2. True False Territorial waters extend five miles into the ocean from shore.
3. True False International waters begin where territorial waters end.
4. True False The entire ocean covers sixty percent of the surface of the earth.
5. True False It has been a long-time maritime tradition that fishing vessels can harvest fish anywhere in international waters.
6. True False Overfishing means more fish are being caught per year than can be replaced, resulting in a decline in the fish population.
7. True False Whales became endangered species due to overfishing.
8. True False The Exxon Valdez disaster is an example of problems with offshore oil drilling platforms.
9. True False Modern cruise ships are examples of self-contained systems that do not pollute the ocean.
10. True False One of the worst dead zones in the world is in the Gulf of Mexico where the Mississippi River empties into the ocean.

Name \_\_\_\_\_

Date \_\_\_\_\_

### Answers

1. False
2. False
3. True
4. False
5. True
6. True
7. True
8. False
9. True
10. True