

South Carolina Academic/Career Development Integration Activity

Title **Ocean Pollution (ES-5)**
Subject **Science**

Grade Level 5

SC Content Standard – Scientific Inquiry – Grade 5. Standard 5-3. The student will demonstrate an understanding of features, processes, and changes in Earth’s land and oceans. (Earth Science)

5-3.6. Explain how human activity (including conservation efforts and pollution) has affected the land the oceans of Earth.

National Career Development Guidelines Goal/Indicator

Career Management GOAL CM3. Use accurate, current, and unbiased career information during career planning and management.

Indicator CM3.K5. Identify occupations you might consider without regard to your gender, race, culture, or ability.

Career Development Objectives

1. The student will explain how pollution has affected the oceans of Earth.
2. The student will identify ocean-related careers.

Assessment

1. The student will write a short research report about a pollution problem in one of the oceans.
2. The student will identify at least 10 careers found in today’s economy that are somehow related to the ocean.
3. The student will identify three careers he/she finds interesting.

Preparation

- Prior Learning—Study of oceans around the work
- Handouts/Worksheets—*Ocean Pollution Worksheet*
- Resources/Materials—Writing materials, textbook, other resource books, and the Internet (Note: visit these Internet sites for resources on ocean pollution
<http://library.thinkquest.org>,
http://seawifs.gsfc.nasa.gov/OCEAN_PLANET/HTML/peril_pollution1.html
<http://www.stemnet.nf.ca/CITE/oceanpollution.htm>
- Time Required—60-120 minutes for activity, plus discussion time and homework

* Adapted from *Career Development Tool Kit Grades 6-8*, Linda Kobylarz & Associates, 2000. Used with permission.

Procedures

Part One (60-120 minutes)

- In this activity, students will research a problem of pollution in one of the oceans. This activity takes place over several days.
- Begin by engaging students in a quick review of the oceans of the Earth and their importance.
- Tell students they are to write a short report about pollution in one of the oceans.
- Brainstorm some ocean pollution problems.
- Have each student select an ocean to study.
- Hand out the *Ocean Pollution Worksheet* and review it with the students. Students are to use the worksheet as a guide to writing their reports.
- Review research resources. Give students time in class to complete the worksheet and their research.
- Have students write the report as homework.
- Optional: Create an *Ocean Pollution Problems* notebook with all of the students' reports.

Part Two - Career Development Connections

- Introduce the idea that many of today's careers rely on the world's oceans in some way.
- Explore with students some of the careers identified in their reports.
- Continue the discussion by inviting students to share some of the careers in today's workplace they find interesting.
- Wrap up by pointing out to students that there are over 12,000 different careers. With changes in technology and the economy, new ones emerge and some disappear. During their school years, students will have many opportunities to explore careers. It is important for them to know about many careers, so they can make a good choice about what kind of work they want to do.

Crosswalks

SC Career Guidance Standard/Competency

Learning to Work Standard 1. Students will understand the relationships among personal qualities, education and training, and the world of work.

Competency 1.1. Explore career interests and related occupations.

Key Employability Skills

Basic Skills—Writing

Thinking Skills—Creative Thinking

Information Management—Acquires, interprets, and communicates information

Ocean Pollution Worksheet

Name: _____

Date: _____

Directions: Gather information about the ocean pollution problem you selected. Complete the worksheet before you write your report. Write the title and author for each source you use. Follow the worksheet outline when you write your report.

1. Describe the ocean pollution problem.

Ocean _____

Specific problem _____

Area affected _____

2. Summarize the problem (damage to wildlife and ocean shore zone, economic consequences, short-term and long-range ecological consequences).

3. What is being done to correct the pollution problem?

4. List at least ten careers that are somehow related to the ocean.

5. List three careers of interest to you.

Resources

Source Title

Author

Source Title

Author

Source Title

Author