WATER CAREERS

9-12

OBJECTIVES

The student will do the following:

1. Describe the great variety in water-related careers.

2. Compare specific careers regarding education, training, salary, and job description.

SUBJECTS:
Science, Language Arts, Art, Social Studies, Math

TIME:
2 class periods
out -of-class time for research

MATERIALS:
list of careers (teacher sheet)
resource materials and people checklist (student sheet)

BACKGROUND INFORMATION

Water-related careers abound in science, industry, agriculture, recreation, federal, state, and/or local government, research, transportation, engineering, and the military. With an increasing awareness of environmental concerns, these career options can be expected to multiply. Some require no more than a high school diploma and on-the-job training; some require a Ph.D. in a very specialized area. Too often students have no clear career goals. Many of these careers will be unfamiliar to the students; perhaps some will find their niche!

Terms

career: a chosen pursuit or life's work; job or profession one is trained to do

ADVANCE PREPARATION

A. Put each career from Student Sheet on Water-Related Careers on slips of paper (one for each student). Cut them apart. Put them in a container so that students can draw them out.

B. Have students contact any people in the area who are in these careers. If they are willing to be interviewed by the students, list their names and telephone numbers where they can be reached.

PROCEDURE

I. Setting the stage

A. Ask students what their career goals are.

1. Are any water-related?

2. What does “water-related” mean?

3. Ask for examples.

B. Tell students you have an expanded list and they are going to investigate these careers by randomly picking one. Students may exchange their careers as long as each student researches a different one.

II. Activity

A. Research one or more water-related careers including all of the information on checklist (education or technical or on-the-job training, where education/training is available and what duration, degree, certification, or bonding is required, possible employers and geographical location of jobs, salary, job description).

B. Locate and interview a person following this career including all the information on checklist (how long in profession, where trained, advancement or travel, favorite and least favorite aspects of job).

C. Report to class (oral presentation). Turn in completed checklists.

III. Follow-up

A. Invite persons who have the most interesting, in demand, or locally available jobs to speak to class.

B. Send for information to some of the colleges, training institutes, or professional Organizations.

C. Make a bulletin board with information and pictures of water-related careers.

D. Make a file of all reports on the various careers so students can have access for future reference.

IV. Extensions

Have students impersonate a professional and demonstrate some of the activities involved in the job.

RESOURCES

Arms, Karen, Environmental Science, Holt, Rinehart, and Winston, Inc., Austin, TX, 1996.

Chiras, Daniel D., Environmental Science, High School Edition, Addison-Wesley, Menlo Park, CA, 1989.

Current, Volume 12, Number 4, 1994, pp. 31-32.

Earth: The Water Planet, NSTA.

Grades 3-5 Water Sourcebook, pp. 1-88.

Nebel, Bernard J. and Richard T. Wright, Environmental Science: The Way The World Works, 4th Edition, Prentice-Hall, Englewood Cliffs, NJ, 1993.

WATER-RELATED CAREERS

Agricultural Engineer
Aquarium Director
Archaeologist
Aquatic Entomologist
Biologist
Biosolids Specialist
Boat Builder
Boater
Botanist
Bottled Water Company Employee
Builder
Chemist
Chemical Engineer
Civil Engineer
Coast Guard
College/University Professor
Commercial Fisherman
Computer Scientist
Desalination Plant Director
Diver
Docks Master
Ecologist
Environmental Attorney
Environmental Chemist
Environmental Engineer
Environmental Scientist
Farmer
Fire Fighter
Fisheries Biologist
Forester
Geographer
Geologist
Groundwater Contractor
Health Dept./Environmental Inspector
Hydraulic Engineer
Hydrologist
Ice Skater
Landscape Artist
Landscape Architect
Limnologist
Malacologist
Marina Owner/Operator or Employee
Marine Salvage Engineer
Marine Geophysicist
Marine Geologist
Marine Conservationist
Marine Explorer
Marine Technician
Merchant Marine
Meteorologist
Motor Sailboater
Navy
Oceanographer
Olympic/Professional Swimmer
Photographer
Physical Scientist
Plant Physiologist
Plumber
Potter
Professional Tournament Fisherman
Professional Skier (Water or Snow)
Rafting Guide
Ranger
Recreation Instructor
Science Teacher
Scuba Instructor
Scuba Diver
Ship Builder
Seaman
Snow Hydrologist
Soil Scientist
Structural Engineer
Submariner
Sunken Treasure Hunter
Tugboat Biologist
Underwater Photographer
Wastewater Treatment Engineer
Water Meter Reader
Water Level Controller
Water Resources Engineer
Water Quality Control Officer
Well Driller
Yachtsman
Zoologist

Checklist

1. Job title:
2. Education required:
3. Where is this type of education available and how long does it take?
4. What kind of a degree, certification, or bonding is required?
5. Who employs this type of worker?
6. What is the most common geographical location for this type of job?
7. What is the average annual salary range?
8. What are the job prospects/stability of employment?
9. Describe the work that is done on this job.
10. If there is anything else you learned in your research of this job, include it below.
11. Would you be interested in this type of job? Why or why not?