NOAA Teacher at Sea Program

Michael Wing, Aboard NOAA Vessel *R/V Fulmar*, July 17 – 26, 2015

Applied California Current Ecosystem Studies Survey

Activity Title: Your Resume: Now and in Ten Years

Subject (Focus/Topic): Science career exploration

Grade Level: ninth and tenth

Average Learning Time: Two hours.

Lesson Summary (Overview/Purpose): Students will write a current resume. After researching the duties and qualifications of various marine science jobs, they will write a resume for a 25-26 year old who wants to work for NOAA or a similar organization.

Overall Concept (Big Idea/Essential Question): What do you need to do to prepare for a career in marine science?

Specific Concepts (Key Concepts): Eligibility for a work position depends on experience and education. Securing it often depends on contacts. Finding it depends on research.

Focus Questions (Specific Questions):

What have I done to date that might be valuable to employers?
What do I want to do in the future?
How do I need to prepare myself to do that?
What is the role of my education in determining my future options?

Objectives/Learning Goals: Students will write individual professional resumes for themselves, using a job objective that is realistic for a 15 or 16-year old. They will then research job opportunities at NOAA using the www.usajobs.gov web site and other potential employers such as the University of California and marine technology or environmental consulting companies. Once they find one that appeals to them and is appropriate for a 25-year old they will write a second resume, in their own name, that details the education and work experience necessary to land that job.

Background Information: Before doing this assignment students need to know that most jobs in science, technology and government have specific requirements for skills, experience and education. They need to understand that some jobs are intended as entry-level jobs and some

are not. They need to know the difference between a government agency, a university and a private company.

Common Misconceptions/Preconceptions: Many students think that scientific agencies like NOAA employ only scientists. In fact, every working scientist is surrounded by administrators, technicians and communicators without whom the science would be impossible to do, or of little value to the public. Some students believe that science is primarily done by older white men with Ph.D.'s. In fact, science is done by every demographic group and there are opportunities to participate in science at every educational level.

Materials: Computers, a printer and good-quality 8 ½ " x 11" stationary.

Technical Requirements: A computer lab is the best place to do this activity. You need one computer per student, with internet access and a printer.

Teacher Preparation: The instructor needs to be familiar with the conventions of job hunting, and the educational and work experience requirements necessary to work in science, industry and/or government. The instructor needs to be able to discriminate between entry-level, mid-career and very senior job titles. It helps if the instructor has had some personal work experience in the private sector. If not, perhaps the instructor can bring in a few parent volunteers during this activity.

Keywords: Resume, qualifications, references, education, work experience.

Lesson Procedure:

1) Instructor gives short slideshow/lecture on his or her TAS cruise, or some other field or laboratory experience the instructor has done with full time scientists. Instructor tells what he/she knows about how each of the scientists obtained their jobs.
2) Instructor introduces the concept of a *resume* (French for "summary") and shows examples. A handout is given at the end of this document.
3) Using the handout as a guide, students write a real-world resume for themselves. This should list the student's name, address and contact information, education, work experience (if any), community service (if any), awards or honors that are relevant to work, any certifications the student holds such as first aid or water safety instructor, interests, and the names, titles and contact information for three real-world references. The resume must list an objective; a specific, realistic and age-appropriate job the student could do now (summer or part-time) or immediately after graduating from high school.
4) Next each student does some online research about job titles and qualifications for three employers in marine science. One of these must be NOAA. Students can find

NOAA jobs on the www.usajobs.gov web site. A second must be a university or university system that does a lot of marine science such as the University of California at San Diego or the University of Washington. The third should be a private company such as a marine technology company or an environmental consulting company. The instructor can save the students some time by preparing a short list of appropriate companies in the student's region and writing their web site URL's on the white board. Each student must prepare a page or more of notes listing the employers, job titles, qualifications, etc. that he or she has found. The instructor should circulate and make sure that these positions are appropriate for a 25-year old job seeker. (Not "NOAA Administrator.")

5) Finally, the student prepares a second resume that is fictional but realistic. It is for himself or herself in ten years, and the objective is one of the jobs the student has found. Again, it lists name, address and contact information, education, work experience, relevant community service, awards and honors, certifications, interests, and the names, titles and contact information for three made-up but plausible references.

Assessment and Evaluation: Both sets of resumes are handed over to volunteer parent graders with the simple question: "Would you hire this person, based on this resume? Why or why not?" The parent volunteers are instructed to write "yes" or "no", circle any errors, implausible parts or points of confusion on the resume, and add a one-sentence piece of feedback.

Standards:

National Science Education Standard(s) addressed:

Content Standard G – History and Nature of Science
Science as a Human Endeavor (9-12)

Ocean Literacy Principles Addressed:

Ocean literacy Principle #6: The ocean and humans are inextricably interconnected.

b. From the ocean we get foods, medicines, and mineral and energy resources. In addition, it provides jobs, supports our nation's economy, serves as a highway for transportation of goods and people, and plays a role in national security.

State Science Standard(s) addressed: California has adopted the Next Generation Science Standards (NGSS.) NGSS standards are not addressed in this activity.

Additional Resources:

USA Jobs https://www.usajobs.gov/ lists all federal jobs, including NOAA jobs and also department of defense and department of the interior jobs.

UCSD Jobs http://jobs.ucsd.edu/ lists all jobs at the University of California at San Diego, which includes the Scripps Institution of Oceanography.

The University of Washington employment home page http://www.washington.edu/admin/hr/jobs/ includes jobs at the University's School of Oceanography.

The Human Resources page at the Woods Hole Oceanographic Institution: http://www.whoi.edu/jobs/

The Marine Technology Society https://www.mtsociety.org/ is a source of information about marine science jobs.

CSA Ocean Sciences, Inc. https://www.csaocean.com/

CR Environmental, Inc. http://www.crenvironmental.com/

https://www.dmoz.org/Science/Earth_Sciences/Oceanography/Products_and_Services/Consultants/ is a list of 40 marine science consulting companies.

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(handout)

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OBJECTIVE

Work or internship in natural resources/ parks management.

EDUCATION

Sir Francis Drake High School 2013 to present
San Anselmo, California

- North Coast Section Scholar-Athlete with GPA of 3.7.
- Varsity Cross-country team.
- Competed at the 2015 CIF State Cross Country Championships.

The Crucible Industrial Arts School 2011 to present
Oakland, California

- Classes in blacksmithing, welding, jewelry, glass flameworking, glass slumping and fusing.

WORK EXPERIENCE

Youth Conservation Corps Trail Crew Summer 2014
Point Reyes National Seashore
Olema, California

Eight week, 40 hour/week summer job 2014. Cleared brush and downed trees, maintained trails and grounds. Worked as part of a 12 student team under supervision of National Park rangers. Work locations often required long hikes to the Seashore's backcountry.

CERTIFICATION

Earned Red Cross First Aid and CPR certification.

COMMUNITY SERVICE

Volunteered to remove invasive plants for Marin Municipal Water District.

INTERESTS Hiking, metal working, native plants, and anthropology.

References

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