

Activity Title: NOAA ship tour and C.O. presentation with career focus

Subject: Career exploration

Grade Level: 9-10

Average Learning Time: Three class periods or three hours

Lesson Summary: Students will learn about ocean-related careers by interacting with NOAA Corps. Officers and other local community members.

Overall Concept: What are the current available ocean careers and what is needed to secure a job in such a field?

Specific Concepts:

1. Ocean career options in our local community
2. Job description and requirements of these ocean careers
3. Character traits required for specific ocean careers
4. Job skills required for specific ocean careers
5. Education required for specific ocean careers
6. Career paths of those people who have a current ocean career
7. Importance of these ocean careers locally and globally

Focus Questions:

1. What ocean-related careers are available in our local community and beyond?
2. How have people in these careers gotten to where they are today?
3. What is the education required in order to work in the various ocean-related careers?
4. What is the job description for various ocean-related occupations?
5. What is the lifestyle like for people in these ocean-related careers?
6. What types of internships are available for students looking to enter one of these ocean-related careers?
7. What character traits are required for these ocean related careers?
8. What can students be doing now to better prepare themselves for such careers?

Objective:

- Students will be able to describe the various ocean related careers available to them locally with 80% accuracy.
- Students will be able to describe general character traits needed to work in ocean related careers with 80% accuracy.

Background Information: Students will be visiting the *NOAA Ship Rainier* that is home ported in the nearby community of Newport, Oregon. It is important that students understand what is expected of them on this boat, any important safety issues that should be addressed, behavioral expectations, and a general overview of the work that is done on the *Rainier*. The Commander Officer of the *Rainier* will also be presenting to students at a

later date so again it is important students understand what is expected of them both behaviorally and academically.

Common Misconceptions:

- Most ocean careers are science based.
- There are no local ocean related careers that students could fulfill.
- You need a masters degree to work in an ocean related career.
- You are on the ocean/in a boat in some capacity when doing an ocean related career.
- You have to go to a 4 year college to work in an ocean related career field.

Materials:

- Chaperones
- PowerPoint
- NOAA Ship *Rainier*

Technical Requirements: N/A

Teacher Preparation: Field trip coordination/logistics, copies of assignments, dry run through of field trip site etc.

Keywords:

1. National Oceanic and Atmospheric Administration (NOAA)
2. NOAA Corps
3. Hydrographic Survey
4. Bridge
5. Networking

Lesson Procedure: (Note, the below days may not be back to back but could occur over the course of a few weeks.)

Day 1: Ms. Marvin gives NOAA powerpoint which gives an overview of NOAA and the research done on the *Rainier*.

Day 2: Field trip to NOAA ship where students take an hour tour of the boat and interact with officers. Students are exposed to many career options and begin thinking about potential future jobs.

Day 3: The Commanding Officer gives an hour presentation on careers with NOAA, job requirements, needed character traits etc. Students have time to ask specific, personal questions.

Assessment and Evaluation: Completion of field trip lab packet and presentation worksheet.

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Ocean Literacy Principles and Concepts Addressed:

The ocean is largely unexplored.

- Fundamental Concept a. The ocean is the last and largest unexplored place on Earth—less than 5% of it has been explored. This is the great frontier for the next generation’s explorers and researchers, where they will find great opportunities for inquiry and investigation.
- Fundamental Concept d. New technologies, sensors and tools are expanding our ability to explore the ocean. Ocean scientists are relying more and more on satellites, drifters, buoys, subsea observatories and unmanned submersibles.
- Fundamental Concept f. Ocean exploration is truly interdisciplinary. It requires close collaboration among biologists, chemists, climatologists, computer programmers, engineers, geologists, meteorologists, and physicists, and new ways of thinking.

The ocean and humans are inextricably interconnected.

- The ocean provides food, medicines, and mineral and energy resources. It supports jobs and national economies, serves as a highway for transportation of goods and people, and plays a role in national security.

Other State Standards Addressed: (Oregon)

Career-Related Learning Standards

- Develop skills in identifying, evaluating, and using a variety of resources for Exploring, personal, educational, and career choices.
- Identify local and regional educational, employment, and career options.