

NOAA and NOAA Corps Career Exploration

Lesson Plan

Subject: Career Opportunities within NOAA and NOAA Corps

Average Learning Time: 3 sessions, 45-60 each.

Lesson Summary: Students will explore NOAA and NOAA Corps in order to have an understanding of their role in the scientific world and the opportunities and careers offered by the organizations.

Overall Concept: NOAA and NOAA Corps personnel make it possible for the scientific research of our oceans to be performed. Some career positions require a college education particularly in the sciences, while others require no previous education. NOAA Corps provides training all of its employees and scientific personnel.

Specific Concepts:

NOAA and NOAA Corps are organizations that work together and have common goals.

Marine careers have different educational requirements.

The process of research provides the knowledge needed to make informed decisions.

It is essential to keep an open mind and follow your passion.

Focus Questions: What are the career opportunities through NOAA and NOAA Corps for wage mariners, researchers and ship officers? What are the qualifications needed for the positions?

Objectives/Learning Goals:

Students will develop quality biographical and career questions for a specific career.

Students will research and answer their questions in order to create a page for a class power point presentation.

Each student will share his/her slide of the power point with classmates in order that all students have knowledge of the employment opportunities at NOAA and NOAA Corps.

Background Knowledge:

*Students have an overview of NOAA and NOAA Corps positions and the research ships they could be employed on.

*Career questions require in-depth explanations.

*What makes a "fat" question, using the key words: who, what, where, when, why and how.

*Students will have created questions and will interview a classmate. Students will write a biography of a classmate on goggle docs in order that the information can be shared with their classmates. It is a great way for classmates to learn about one another.

*Students have worked with power point presentation.

*At this grade level, students will have had many experiences with peer conferencing. A mini lesson on revising and editing will reinforce what they already know.

Common Misconceptions/Preconceptions:

All officers are required to be in the Armed Forces prior to becoming an officer in NOAA Corps.

All NOAA Corps officers and wage mariners are limited to the ships and areas they can work at.

All NOAA ship positions require a college education.

Materials: writing journals, list of questions to research and laptops

Technical Requirements: laptops and knowledge of creating a page for a power point presentation.

Teacher Preparation:

*Bookmarked websites for easy access for students to complete their research.

*Provide students with anecdotal notes of the interviews with officers, crew and scientists.

Keywords: careers, NOAA Corps: commanding officer, deck officers, engineering officers. wage mariners: engineers, stewards, survey personnel, deck personnel, research scientists and college interns.

Anticipatory Set

Provide an overview of NOAA's mission, role and research as it pertains to the natural world. Share the power point I created about my experiences in the Gulf of Mexico on the Oregon II.

Lesson Procedure:

- Whole class brainstorm of questions that would be pertinent to ocean careers, specifically education requirements, personal interests and types of scientific research. I have included a list questions that my students created with some direction and support.
- Students choose a career from the above Keyword list. If they do not have a career of interest or knowledge of ocean careers, the websites I have listed under Additional Resources will help them to get started.
- Students will take notes in their writing journals on the questions they have chosen to research. They will have chosen no more than 5 questions to explore.
- I will provide the anecdotal notes and share my thoughts on the scientists, crewmembers and officers that I interviewed while on my cruise.
- Once they have completed their research, students will peer conference.
- Meet with each student after the peer conferencing has taken place and prior to them starting their power point slide.
- Students will decide on the format of the slide and if they want to put a picture or illustration with their slide. If student do so, they can use 2 slides in their presentation.
- Once all slides are completed, they will be combined into one power point presentation, which will be shared with the class.

Assessment and Evaluation:

- Create a rubric with the following criteria: quality of questions, detailed and accurate answers to their questions, well organized, original and creative presentation, and proper conventions.
- Students will self-assess their slide presentation.
- Teacher will assess writing journal and the final product of the power point slide.

Interview Questions for NOAA/NOAA Corps Career Opportunities

Careers include: Captain, 3 deck officers, navigator-medical-haznet, 2 engineers, boatsman, 3 fishermen, 2 engineering, technician-technology support, 2 stewards

What were some of your experiences with the ocean before you joined NOAA?

What is the most important job you do on the ship?

What do you do when you are on the bridge?

What is the best part of your job?

Are you always on duty?

What do you think you will do after you retire from NOAA Corps?

Does everyone have to wear a uniform everyday?

How did you come to work for NOAA?

Do you have a long-term commitment with NOAA or NOAA Corps?

Why should I consider working for NOAA/NOAA Corps?

What is the role of the scientist, officers and crew?

Are you assigned to different ships often?

Have you always had a love for boats?

What qualifications do you have to work for NOAA?

What advice you can give 5th grade students about an ocean career?

Is it difficult being away at sea for so many days in a year?

Is a college degree required to work for NOAA? How long did you go to college?

Have you had to work hard to get where you are today?

What do you feel your role is on the ship?

Where did you get your experience prior to being on a NOAA ship?

National Science Education Standards Addressed

Science in Personal and Social Perspectives: All students should develop understandings of science and technology in society.

Ocean Literacy Principles Addressed:

7F The Ocean is largely unexplored: 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.

Benchmarks for Science Literacy Addressed:

The Scientific Enterprise: By the end of the 5th grade student should know that doing science involves many different kinds of work and engages men and women of all ages and backgrounds.

Maine Learning Results: Standards Addressed:

Preparing for the Future: Students will demonstrate an understanding of the relationship among personal interests, skills and abilities, and career research.

Processes of Writing and Speaking: Students will formulate questions to be answered while reading.

Research-Related Writing and Speaking:

Students will ask and seek answers to questions. Students will collect and synthesize data for research topics from interviews and fieldwork using notetaking and other appropriate strategies.

Additional Resources:

<http://www.noaacorps.noaa.gov/>

<http://www.nefsc.noaa.gov/>

<http://oceanlink.info/career/career2.html>

<http://www.moc.noaa.gov/>

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