

NOAA Teacher at Sea Program Lesson Plan – Ocean Careers

Activity Title: Life at Sea

Subject (Focus/Topic): Jobs aboard a NOAA boat/Marine careers

Grade Level: 6-8

Average Learning Time: One 45-minute period

Lesson Summary (Overview/Purpose):

Students will learn about NOAA and the typical jobs on a NOAA research vessel, including fisherman, engineer, cook, chief scientist, captain (commanding officer), and executive officer. Students will increase their exposure to knowledge of marine careers and consider potential marine careers with NOAA or other science-based organizations.

Overall Concept (Big Idea/Essential Question):

Students gain exposure to knowledge of marine careers.

Specific Concepts (Key Concepts):

- NOAA stands for National Oceanic and Atmospheric Administration
- The ocean is the last and largest unexplored place on Earth – less than 5% of it has been explored.
- NOAA is one of the seven uniformed services of the United States
- NOAA operates 18 ships that conduct three main types of cruises: Fisheries Research, Oceanographic and Atmospheric Research, and Charting and Hydrography.

- Officers operate ships, fly aircraft, manage research projects, conduct diving operations, and serve in staff positions throughout NOAA. The NOAA Corps traces its roots back to the former U.S. Coast and Geodetic Survey, which dates back to 1807 and President Thomas Jefferson. The NOAA Corps today provides a cadre of professionals trained in engineering, earth sciences, oceanography, meteorology, fisheries science, and other related disciplines.

Focus Questions (Specific Questions):

- What is NOAA?
- What jobs are involved on a NOAA boat?
- What do NOAA boats do?

Objectives/Learning Goals:

Students will be able to:

- Understand the jobs aboard a typical NOAA boat
- Identify with a job that they might like to have and explain why

Background Information:

Common Misconceptions/Preconceptions:

- Students may have no knowledge of NOAA or some of the jobs that are involved or experience required.

Materials:

Materials for folder-pass activity, photos and videos from Teacher at Sea experience.

Technical Requirements: n/a

Teacher Preparation:

- Create a folder for each of the six jobs, including photos, a brief description of each job, salary, and educational requirements

Keywords:

- NOAA, vessel

Pre-assessment Strategy/Anticipatory Set:

Lesson Procedure:

- Introduce the jobs of the boat through a short lesson supplemented with slides. Give students a brief explanation of these jobs.
- Have students get into groups of four. Each group will receive a folder containing information about one of six jobs that their teacher encountered on the boat. Students will look at pictures, job descriptions, salary information, and educational requirements in order to learn more about that career. Students will fill out a graphic organizer while doing so.
- After 7 minutes, students will pass folders to another table, and continue with the next folder.
- Repeat this until all students have received folders containing the information for six jobs.
- Share out: After the folder pass activity, students will write a journal response in their notebook to answer the question, "If I could have one job on a NOAA boat it would be _____ because _____." Students should share out answers aloud to the class, explaining their reasoning for selecting that job.

Assessment and Evaluation:

Journal responses and graphic organizers will help assess knowledge students' gained during this activity.

Standards:

- **National Science Education Standards Addressed:**
- **Ocean Literacy Principals Addressed:** #7, The ocean is largely unexplored
- **State Science Standards Addressed:**

Additional Resources:

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Commanding Officer (CO) – NOAA Corps

- Ultimately responsible for entire ship, including safety of ship and personnel and safe completion of mission
- Stands Officer of the Deck (OOD) watch as needed
- Not all Commanding Officers have the rank of Captain (CAPT) even though they are often referred to as "Captain."

All other jobs are civilian personnel