Maritime Occupations Exploration

A Career Exploration Activity for High School (Grades 9-12)

Additional modules can be found at:
www.maritime-technology.org

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Purpose
The goal of this SMART activity is to expose students to a wide variety of careers in the maritime and transportation industry. By exploring, comparing and writing about maritime careers as described online and in the SMART Maritime and Transportation Career Guide students will gain a broader understanding of the career opportunities, educational requirements, wages and daily tasks in the industry.

Duration
Three 45- to 60-minute class periods

Process
Day One Objective
The student will compare and contrast similar occupations in the marine industry and the commercial industry, i.e. Marine Electrician/ Commercial-Residential Electrician

Standards for School Counseling Programs Correlation (Virginia)
Career Development

- HC8 -- Demonstrate skills involved in locating, using, and interpreting a variety of career and educational resources, including the Internet

Resources/Materials

- Computers with internet access
- SMART Center Maritime Career Guide & Resource Handbook
- Alternative website:  www.bls.gov

Procedure
The student will read the occupation featured as electrician in the SMART Center Maritime Career Guide & Resource Handbook under the Ship Maintenance and Repair Section and compare the occupation to the commercial or residential aspect of the same occupation. S/he will then complete the correlating worksheet, filling in the spaces matching various aspects of each occupation.
<table>
<thead>
<tr>
<th>Electrician</th>
<th>Industry: Residential/Commercial</th>
<th>Industry: Shipbuilding/Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education:</td>
<td></td>
<td>Education: HS Diploma/GED, Vocational School, On the Job Training, or A.A.S. degree, registered apprenticeship</td>
</tr>
<tr>
<td>State Licensing:</td>
<td>DOL Journeyman/Master Electrician</td>
<td>State Licensing:</td>
</tr>
<tr>
<td>Specific Activities:</td>
<td></td>
<td>Specific Activities:</td>
</tr>
<tr>
<td>Wages:</td>
<td></td>
<td>Wages:</td>
</tr>
<tr>
<td>Employment Index:</td>
<td></td>
<td>Employment Index: 3.98%</td>
</tr>
</tbody>
</table>

1. Complete the table (above) and then share your findings about similar and dissimilar aspects of the occupation with your peers.

2. Pick one of the two occupations you investigated and write a short paragraph about why you would prefer that occupation, citing facts you discovered during your research. Share your writing with the class.
Day Two Objective
The student will become familiar with various occupations utilizing words associated with Ship Maintenance and Modernization.

Standards for School Counseling Programs Correlation (Virginia)

Career Development

- HC8: Demonstrate skills involved in locating and using and interpreting a variety of career educational resources
- HC9: Demonstrate knowledge of current job market trends

Materials

- Paper, pencil or ink pen
- SMART Center Maritime Career Guide & Resource Handbook
- Worksheet

Procedure

The student will match various occupations to the descriptions listed on the worksheet or find occupations that match descriptions.
Worksheet: Maritime Occupation Match

Using the "Ship Maintenance" section of the SMART Center Maritime Career Guide & Resource Handbook, complete the following table, writing the basic duties of the occupations listed below or read the descriptions and find the occupations that correlate to the written descriptions.

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Duties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigger</td>
<td></td>
</tr>
<tr>
<td>Sheet Metal Worker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepare surfaces for finishing, apply decorative or textured finishes or coverings, smooth surfaces with abrasive materials or tools</td>
</tr>
<tr>
<td>Pipe Fitter</td>
<td>Diagnose, adjust and repair any type of diesel engine</td>
</tr>
<tr>
<td>Welder</td>
<td>Determines time, cost, resources of materials needed to perform a work activity</td>
</tr>
</tbody>
</table>
Day Three Objective
The student will read the contents of Ship Maintenance and Repair Section of the Maritime Handbook and find relevant information pertaining to various occupations.

Standards for School Counseling Programs Correlation (Virginia)

Career Development

- HC3 -- Understand how changing economic and societal needs influence employment trends in future training

Resources

- SMART Center Maritime Career Guide & Resource Handbook
- Worksheet

Procedure

The student will read several passages and answer questions or fill in blanks.

Assessment

The student will complete the worksheet and discuss his/her findings with peers.
Worksheet: Get to Know Your Maritime Careers

Directions: Read and answer the questions according to the Maritime Handbook.

1. The daily tasks of the carpenter are: (List 3)
   1. ____________________________________________________________
   2. ____________________________________________________________
   3. ____________________________________________________________

2. The salary for the Sheet Metal Worker is $______________ per hour and a median annual salary of $______________.

3. Read the Ship Fitter Section. List the educational credentials
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

4. What are some of the related occupations for the Outside Machinist?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

5. Summarize in your own words the occupation description of a Heating and Air Conditioning and Mechanics and Installer.