Name: _____          Date: _____

**Telling Time, Back in Time: How Nautical Instruments and Astronomy Were Used to Determine Time of Day**

*Problem: It's a beautiful sunny day in Mystic, CT. You are out for a leisurely sail aboard the [Breck Marshall](#) before your dinner reservation at 5pm.   About mid-day you realize you have forgotten your cell phone, and watch! You know it will take you 2 hours to get back to shore. How will you know when it is time to head back in? You look around in your vessel, and you find an object to help you. How will you get home in time?*

**Step 1: Structure and Function: Object Analysis**

Assigned Object Name: _____

Structure (Observations)

1.  Draw a scientific sketch of your assigned object. (include labels: materials, measurements etc.)

2.   Describe in detail what does it look like. How big is it? What shape is it? What color(s) is it? Is it worn? Does it have any identifying markings or writing? What is it made of?

Function (Analysis)

3.  How might this object be used?

4.  What evidence do you have to support your claimed use?

## Step 2: Present your Findings

Your presentations will be scored based on the presentation rubric.  They must include

- A thorough description of the structure of the object. (including images)
- A predicted function for the object justified by evidence. (ie. What is this object used for? Why do you think that based on its structure? Why do you think that based on your prior knowledge of astronomy?)
- A thorough explanation to answer to the "problem" rooted in your prior knowledge of astronomy.

## Presentation Rubric

| Category | Superior | Making Progress | Ready to Improve |
|---|---|---|---|
| Content and Conclusions | - Information is complete and clearly presented<br>- Listeners clearly understand the structure of the object<br>- Listeners clearly understand the predicted function(s) of the object<br>- Predictions are grounded in evidence<br>- Information flows logically in how the bridge information is presented | - Most information is complete and clearly presented<br>- Listeners have some understanding of the structure of the object<br>- Listeners understand some of the function(s) of the object<br>- Predictions are grounded in evidence some evidence, or irrelevant evidence is provided<br>- Information flows logically in how the bridge information is presented | - The group needs to focus on the content of the topic to demonstrate that they understand the concepts<br>- Listeners are left with questions regarding the structure of the object<br>- Listeners are left with questions regarding the function(s) of the object<br>- Predictions lack evidence<br>- Information as presented does not flow logically |
| Delivery | - Group members make eye contact, speak to the audience<br>- All group members participate equally<br>- Presentation is clearly rehearsed | - Group members often make eye contact, often speak to the audience<br>- All group members participate though some members participate more than others<br>- More rehearsals by the group would allow the presentation to flow better | - Group members often speak to the visual aid or to each other instead of to the audience<br>- Some group members do not participate<br>- The group has not rehearsed; they decide what they will do next during the presentation |
| Visual Aid | - Visual aid is appealing to the eye (is organized, makes good use of color [?], is neatly done, is complete, uses bullets to summarize ideas)<br>- the pictures and diagrams chosen do much in adding to the content and understanding of the information presented<br>- There are no spelling mistakes<br>-Bulleted lists are used | - Visual aid has some appealing characteristics<br>- the pictures/diagrams chosen aid the audience in understanding the content of the presentation<br>- There are spelling mistakes | - Visual aid appears to have been hastily thrown together; it may contain several spelling mistakes, graphics that do little to support the content, a lack of continuity in the format, a drab choice of colors, etc.<br>- Visual aid uses sentences or too many words (appears cluttered), too much info |