

Ship's Log

Amazing Cape Cod Regatta Challenge: NAVIGATION

Sailor's name: _____ **ANSWERS** _____

After exploring the websites and completing the Investigations in the Catboat Crew CATegory: NAVIGATION, answer the following. You can use words or diagrams.




TOTAL POINTS:

_____ out of 100

85-100pts 1st Mate
70-85pts Helmsman
55-70pts Deckhand

WEBSITE, PODCAST, VIDEO

- List 3 examples of hazards or dangers to navigation.
coral reefs, wrecks, shallow or exposed rocks, shoals, underwater objects, sand spits
- List 3 examples of aids to navigation (things that help keep mariners safe).
lights, buoys, day marks, fog signals (fog horns, bells, gongs, whistles)
- On a nautical chart, shallow water is colored **Blue**. Deep water is colored **white**. The numbers on nautical charts are called sounding numbers. A sounding tells you **how deep the water is (in feet or fathoms)**.
- Why would sound signals like fog horns, bells, gongs, and whistles be important to mariners? **answers vary but something along the lines of nautical charts assume that the mariner is able to see landmarks, aids to navigation (ie. buoys). If it is stormy, foggy, or dark with no lights signals, sound signals give another way to warn mariners—if they can't see the danger or marker, perhaps they can be alerted by sound**
- Draw the symbols for the following features on a nautical chart. (Hint: Answers can be found in the Scavenger Hunt in the Message in a Bottle website or U.S. Chart No. 1-link in Investigation for Navigation CATegory.)

Nautical Chart Feature	Draw It!
lighthouse	LtHo
tower (can indicate a tower, spire, cupola)	
buoy marks	
submerged shipwreck	

6. Dive Deeper! Choose one of the following ways that nautical charts can help people (besides navigating safely in a boat) and explain how they can be helpful.
- Plan where to put oyster beds.
 - Know where it is safe to anchor for the night.
 - Where a harbor master should place a mooring (a mooring is a buoy fixed to the bottom of a body of water for the purpose of keeping a boat or other object from floating away).
 - Know whether or not a large pier or dock should be built in a certain place.

answers vary

INVESTIGATION

Use NOAA Nautical Chart No. 13229/Side B for this Investigation. The link is on the Amazing Cape Cod Regatta website under the Catboat Crew CATegory: Navigation. Use the "+" button on the chart navigation on the left of the screen to zoom in to Hyannis Harbor and Lewis Bay (1st chart at top of page).

1. How many towers can you find? (A tower can be a tower, spire, or cupola.) 5

2. Why would mariners want to know where these obvious landmarks are when they are travelling on the water?

Answers vary—even though the landmarks are not in the ocean, they can be seen from the water. Mariners can use them as guides to navigate by.

Submerged rocks that pose a threat to navigation are labeled "Rk" or "Rks" and are sometimes named. Find the entrance to Hyannis Harbor and Lewis Bay. The shipping lane is shown by a white strip.

3. How is the entrance to the harbor and the boundaries of the shipping lane marked?
A) Sand bar B) Buoys C) Large signs

4. Name 4 large rocks that are hidden or exposed near the harbor entrance.

Eddie Woods, Gardiner's, Halftide, Great Rock

5. What do you think "The Spindle" is? shoal or very shallow area(indicated by blue color and sounding number 2)

What does the number 2 inside of The Spindle tell us? it is only 2 ft. deep

6. Where is the submerged shipwreck located? Hyannis Harbor