



## New Bedford Fishing Heritage Center

**Lesson Title:** Where do they go?

**Duration:** 1- 50 minute class period

**Overview:** Students practice geography and math skills while learning about their relevancy to commercial fishing such as pinpointing locations, locating habitat protection areas (restricted access areas) calculating depth and distance using measurement conversions.

**Content Areas:** Geography and Math

**Standards: Social Studies:** *61* Use map and globe skills learned K-5 to interpret different kinds of map projections. *64* Explain the difference between absolute and relative location and give examples of different ways to indicate relative location for countries or cities across the world. *66* Distinguish between political and topographical maps and identify types of specialized maps **Math:** *5.M.3* Solve problems involving simple unit conversions within a system of measurement. *5.MD.1* Convert like measurement units within a given measurement system. *5.NBT.5* Perform operations with multi-digit whole numbers and with decimals to hundredths.

**Objectives:** Students will be able to analyze a chart of the ocean (specifically Georges Bank), locate areas that the New Bedford fishing fleet utilizes (restricted and open areas), demonstrate basic pinpointing skills and make conversions within units of measurement (distance and depth) using map scale and contour lines.

**NBFHC Resources:** *Where do they go?* Background Information  
*Where do they go?* Geo-Activity  
*Georges Bank* Map

**Materials:** Pencil  
Ruler  
Calculator (optional)

**Activator:** Ask these questions: "Where does our local seafood come from? How far do you think this seafood has traveled before it gets to your plate?" (Brainstorm on board together or in student journals)

**Activity:** Read: *Where do they go?* Background information, then have students work on the accompanying *Where do they go?* Geo-Activity Questions using the map of Georges Bank provided.

**Summarizer:** What have you learned about Georges Bank fishing? (Record answers on board or in journals)

**Assessment:** *Where do they go?* Geo-Activity

**Extension Activity:** Color the *Georges Bank* map using the contour lines as a guide. *\*Example: Color Massachusetts Green, Dark Blue to the 50 fathom line, Blue to 100 fathom line, light blue to the 500 fathom line, etc.* The different shades of blue will accentuate the changes in ocean depth across George's Bank showing its bathymetry (the underwater equivalent of topography).



Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Where do they go?



### \*Word Bank

**Crew**- Several people who work together on a vessel.

**Dragger**- A Fishing Boat that catches various groundfish species such as Cod Fish and Haddock..

**Scallop**- A Fishing Boat that catches Sea Scallops.

**Steam**- Nautical term that indicates time traveling to & from a destination.

**Vessel**- A boat (*Note: F/V is the abbreviation for fishing vessel*)

**Georges Bank**- Historically famous fishing ground east of New England.

Have you ever wondered where fishing boats go to get the seafood that you enjoy? Before you take a bite out of that fish sandwich, or pop another fried scallop into your mouth, think about *where* they came from. Many **\*Scallopers** and **\*Draggers** from the port of New Bedford **\*steam** for many hours and travel many miles out to sea before they even *arrive* at their fishing grounds, that means that they haven't even begun to catch anything yet. Many of our local fishermen fish on **Georges Bank** and are out to sea for as long as sixteen days, that's more than two weeks! When the fishing **\*vessel** catches its' limit, the **\*crew** has to steam back to port to sell the fish or scallops which finally end up on your plate in a restaurant or at your home.

Let's see how far your seafood has traveled to get from the deep ocean to your plate...

**What You Will Need: Map, pencil, calculator (optional), and ruler**  
**(Use the map of Georges Bank to answer the following questions).**



Name: Teacher Notes Date: \_\_\_\_\_

## Where do they go?

**Directions:** Look at your map of Georges Bank. Notice the three "closed areas" that have been sectioned off; Nantucket Lightship Closed Area, Closed Area 1 and Closed Area 2. These are *restricted access* areas, Fishermen are only allowed to go into these areas for a certain number of days every year. Using your map, a pencil, ruler and scrap paper (or calculator) answer the following questions.



1. Please insert a compass rose onto your map.
2. What is the scale on this map? **1 inch = 36 miles**
3. What are the coordinates (latitude and longitude) for the Port of New Bedford?  
**41° 38' N. 70° 56' W.**
4. a. Pinpoint this location: 41° 30' N. 67° 0' W. Mark your location with an X.  
b. What is the name of this area? **Closed Area 2**  
c. How many miles from New Bedford is your location (X)? **216 miles**
5. There is a boundary line to the east of your location, what is it called? **Exclusive Economic Zone Boundary or Hague Line**
6. If a vessel steams 100 miles south from New Bedford, how deep is the water?  
Hint: (1 fathom= 6 ft)  
Fathoms? **100 Fathoms**                      Feet? **600 Feet**
7. If a vessel steams at 20 mph, how long would it take to get to this location?  
40° 45' N. 68° 0' W.                      **8.6 hours (172miles divided by 20)**
8. What would the *total steaming time* be for this trip? (# hours x 2) **17.2 hours**



Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Where do they go?

**Directions:** Look at your map of Georges Bank. Notice the three "closed areas" that have been sectioned off; Nantucket Lightship Closed Area, Closed Area 1 and Closed Area 2, these are *restricted access* areas. Fishermen are only allowed to go into these areas for a certain number of days every year. Using your map, a pencil, ruler and scrap paper (or calculator) answer the following questions.



1. Please insert a compass rose on your map.
2. What is the scale on this map? \_\_\_\_\_
3. What are the coordinates (latitude and longitude) for the Port of New Bedford?  
\_\_\_\_\_
4. a. Pinpoint this location:  $41^{\circ} 30' N$ .  $67^{\circ} 0' W$ , mark your location with an X.  
b. What is the name of this area? \_\_\_\_\_  
c. How many miles from New Bedford is your location (X)? \_\_\_\_\_
5. Locate the boundary line to the East of your location, what is it called?  
\_\_\_\_\_
6. If a vessel steams 100 miles south from New Bedford, how deep is the water?  
(Hint: 1 fathom= 6 feet)  
Feet? \_\_\_\_\_ Fathoms? \_\_\_\_\_
7. If a vessel steams at 20 mph, how long would it take to get to this location:  
 $40^{\circ} 45' N$ .  $68^{\circ} 0' W$ ? \_\_\_\_\_
8. What would the *total steaming time* be for this trip? (# hours x 2)  
\_\_\_\_\_



# New Bedford Fishing Heritage Center

