



# Getting Around the Islands Without Actually Going There

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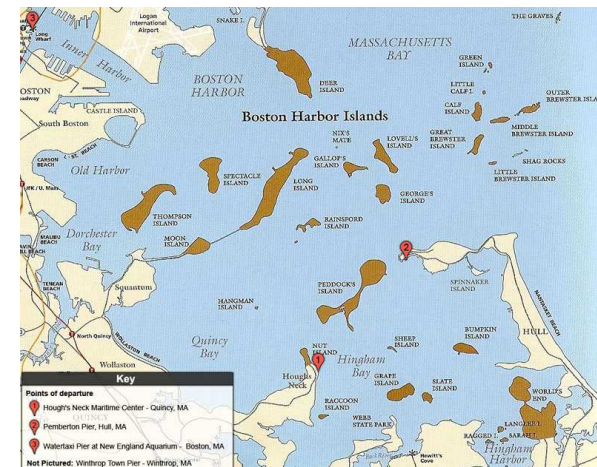
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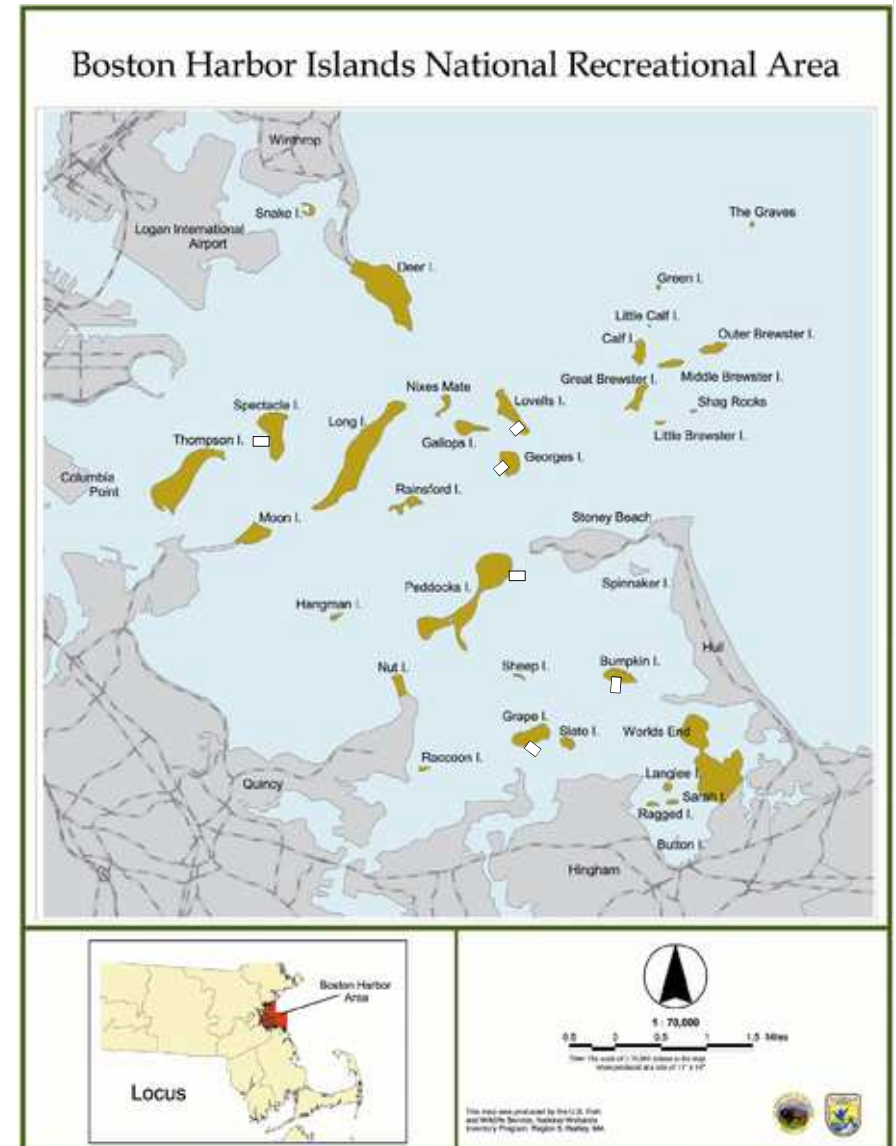
## Practicing cardinal and intercardinal directions

- **What direction do you travel to get from:**
- Thompson Island to Long Island?
- George's Island to Peddock's Island?
- Hingham Shipyard (Hewitt's Cove) to Raccoon Island?
  
- Long Wharf to Spectacle Island?
- Hingham Shipyard (Hewitt's Cove) to Peddock's Island?
- Pemberton Point to George's Island?



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- Measuring Distances
- Which six islands are open seasonally for free?
- Find the shortest route, dock to dock, among the six open public islands, if you go to each island once.
- I have marked in the estimated locations of the piers.



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## Looking at the map of the islands, answer the following questions:

- Which island is closest to: Boston, South Boston, Winthrop?  
Wollaston Beach, Hewitt's Cove, Hull?
- How many islands are connected to land?
- What do we know about the age of the islands?
- How many have public docks?
- How many have animal names?
- Why would people want to visit an island?



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- Latitude and Longitude

<u>Name of Island</u>	<u>Latitude</u>	<u>Longitude</u>
• Bumpkin	42° 16' 52.00" N	70° 53' 15.4" W
• Georges	42° 19' 0.52" N	70° 55' 43.2" W
• Grape	42° 16' 10.1" N	70° 55'
00.07" W		
• The Graves	42° 21' 38.3" N	70° 52' 08.6" W
• Great Brewster	42° 20' 25.8" N	70° 53' 41.0" W
• Little Brewster	42° 19' 45.6" N	70° 53' 30.5" W
• Long	42° 19' 13.3" N	70° 57' 55.8" W
• Lovells	42° 19' 45.6" N	70° 55' 48.5" W
• Middle Brewster	42° 20' 23.8" N	70° 53' 22.1" W
• Outer Brewster	42° 20' 23.8" N	70° 52' 36.1" W
• Peddocks	42° 17' 32.6" N	70° 56' 21.6" W
• Raccoon	42° 15' 52.8" N	70° 56' 57.1" W
• Thompson	42° 18' 53.6" N	71° 0' 53.3" W

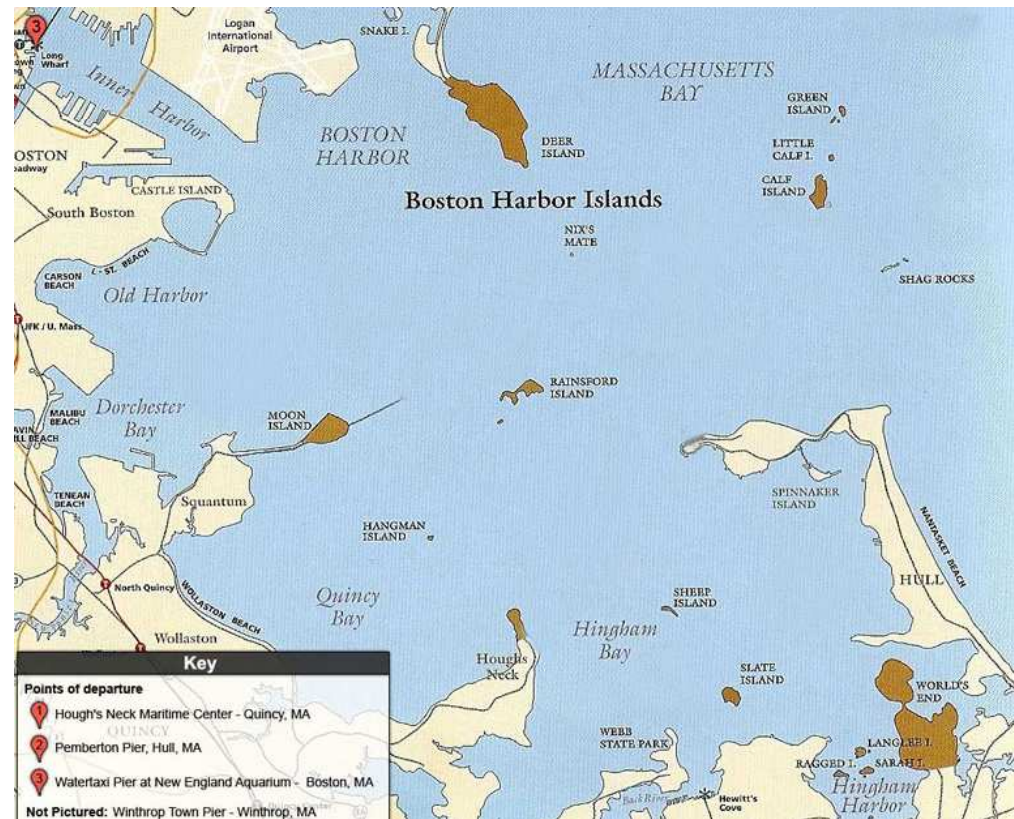
[http://geographyworldonline.com/tutorial/lesson1.h](http://geographyworldonline.com/tutorial/lesson1.html)

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- **Latitude and Longitude**

- Cut out the islands from the handout
- Using the absolute locations provided on the previous slide (taken from the National Park Service web site) place the islands on the Boston Harbor chart provided.



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<u>Name of Island</u>	<u>Total Acreage</u>
• Bumpkin	62
• Georges	53
• Grape	101
• The Graves	1.8
• Great Brewster	68
• Little Brewster	7
• Long	225.2
• Lovells	61.9
• Middle Brewster	13.6
• Outer Brewster	20.1
• Peddocks	210.4
• Raccoon	3.6
• Thompson	169.9

Acreage totals include land visible at low tide.



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- Using the acreage numbers on the previous slide answer the following questions:
- Can all of the Brewster Islands fit into Long Island?
- What are the mean and median acreage for the islands listed?
- In degrees and minutes (ignore seconds), what is the difference in longitude between Outer Brewster Island and Grape Island?
- In degrees and minutes, (ignore seconds), what is the difference in latitude between Thompson Island and Bumpkin Island?

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- The Boston Harbor Islands are home to a wide variety of birds, land animals, coastal animals, marine algae, trees and plants.
- In addition, many fish, jelly animals and marine mammal species can be seen during trips to and from the islands.
- According to the NPS web site, the MA Natural Heritage and Endangered Species Program lists six rare species within the island park boundaries. There are four birds: barn owl, common tern, least tern, and Northern harrier and two plants: sea beach dock and American sea blite.



Lipu-uk.org



fotolibra.com



Identifywhatbird.com



fotosearch.com



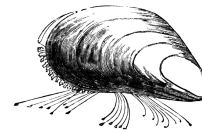
Plants.usa.gov



Luirig.altervista.org

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## Food Chains and Webs



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Using the sheets provided, cut out the animals, plants, trees and arrows to create food chains or a food web to connect these species together.



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### **Activities to Consider on a Boston Harbor Island:**

- Have students work in teams of 3-4 to pick up trash. Have one of the students keep a tally of the items found. These numbers can be used for practice making bar graphs.
- Have students note and/or draw the different species they see. Knowing the exact names is not as important as noting the details such as size, color, habitat, behavior and number. Scientific drawing is a well-used tool for remembering what was seen, esp. if the name is not known.
- Combining the above two activities gives the students a good sense of the natural life on the island and the chance to provide a direct benefit to those species by cleaning up their habitat.
- Measure the distance the water's edge moves up or down the beach as the tide changes.
- Using a simple water level, (which should be demonstrated this afternoon on George's Island), students can measure the change in elevation of the water during your time on the island.
- Make note of any evidence of human activity: buildings, old piers, vehicle parts, crops such as apple trees, pear trees, garlic, asparagus

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## Online Resources

- <http://www.nps.gov/boha/forteachers/curriculummaterials.htm>
- <http://www.savetheharbor.org/index.php/program-areas>
- <http://www.estuaries.gov>
- <http://web.vims.edu/bridge/?svr=www>

