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New York Coasts and the Giant Traveling Map

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Educators explore the New York State Map at a workshop in Hyde Park, NY. Image credit: Debi ${\rm Duke}/{\rm THV}$

The *National Geographic*-produced New York Giant Traveling Map is a great opportunity to raise student's awareness of our important coastlines.

New York Sea Grant uses this map in educational trainings its co-sponsors with Cornell Institute for Resource Information Sciences (IRIS). Educators can purchase this map via National Geographic at: www.nationalgeographic.org/education/giant-maps.

New York's uniquely borders both the Great Lakes and the Atlantic Ocean. Our diverse marine and freshwater coasts can be explored in three regions: The Great Lakes-St. Lawrence River, The Hudson River Valley and NYC/NY Harbor, and Long Island Sound and Atlantic coast. Our coastal waters provide countless boating, fishing and swimming opportunities.

The following includes a few tips to inspire adapting existing Giant Traveling Maps Handbook Lessons to highlight New York coasts and water bodies.

Grids

Have students locate coastal cities or towns. For example, have them locate Buffalo and New York City. It is likely several coastal towns will be included your grid relay.

Here are some engaging follow-up questions:

- Why do you think people settled along the water?
- Have you visited a waterfront (beach or park) near this location? Fishing or boating? Where?
- Where do you think people living in your location get drinking water from? Why?

Scavenger Hunt

If your students have mastered the map key, a scavenger hunt could be adapted to highlight the water features only. Have teams of students locate rivers, lakes, swamps and canals.



New York from space. Image credit: NASA



Satellite image of Hudson River watershed. Image credit: NYS Department of Environmental Conservation.

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New York's Sea Grant Extension Program provides Equal Program and Equal Employment Opportunities in association with Cornell Cooperative Extension, U.S. Department of Agriculture and U.S. Department of Commerce and cooperating County Cooperative Extension Associations.



Teachers participate in a NY Sea Grant Great Lakes Workshop. Image credit: Paul C. Focazio

Cardinal Directions

Visit all New York Coasts in less than 15 minutes. Using the cardinal directions, have student groups locate the Atlantic Ocean, Long Island Sound, New York Harbor, The Hudson River, The St. Lawrence, Lake Erie and Lake Ontario.

Outlining Watersheds

Older students who understand watershed concepts might enjoy outlining the watershed. This could be done using string – if large enough the group can join hands and surround the watershed.

Watershed definition: A watershed is an area of land from which water drains, running downhill, to - a river, pond, stream, lake, or estuary, a basin that is bound by topographic features, such as ridge tops.

Where Fresh and Salt Water Meet: New York Estuaries

Estuaries are bodies of water where salt water from the ocean mixes with fresh water running off of the land. Partially enclosed by land, New York's estuaries are protected from the full force of ocean waves but are influenced by currents tides and fluctuating salinity levels. Ecologically productive, estuaries provide habitats for fish, birds and other wildlife.

The Hudson River

The lower half of the Hudson River, approximately 153 miles from the Troy dam to New York Harbor, is a significant estuary ("an arm of the sea") represented on the map as a long thin blue line.

Measure: For younger students measuring the length of the Hudson is a simple activity, using string, yarn or their feet.

Explore: The Hudson is surrounded by urban and rural landscapes.



Boaters enjoying the Hudson near Croton Point. Image credit: D. Crawford

Resources

Dive Deeper into Coastal Education

For over 50 years, the National Sea Grant College Program has supported coastal and Great Lakes communities through research, extension and education.

Sea Grant's mission is to enhance the practical use and conservation of coastal, marine and Great Lakes resources in order to create a sustainable economy and environment.

In New York, Sea Grant is a partnership of the National Oceanic and Atmospheric Adminstration, Cornell University and the State University of New York.

You can learn more about Sea Grant at www.nyseagrant.org. Additional education resources can be found via the New York State Marine Education Organization at www.nysmea.org or www.nationalgeographic.org/education/giant-maps.





Visitors enjoy the NYS Skyline from Liberty Island. Image credit: Nordica Holochuck



Sunset at Montauk Point. Image credit: Michael Weinberg





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New York Sea Grant is part of a nationwide network of 33 university-based programs working with coastal communities through the National Oceanic Atmospheric Administration (NOAA). Sea Grant research and outreach programs promote better understanding, conservation, and use of America's coastal resources. Sea Grant is funded in New York through SUNY and Cornell University and federally through NOAA.