

Maps and Landforms

To conduct this activity, you will need to use a United States Geologic Service (USGS) topographic map or a map with contour lines. If you do not have a USGS topographic map, they are available at many bookstores and sporting goods stores. (Topographic maps of New York State are indexed as: Pulaski 1956, Ellisburg 1958, and Henderson 1959. They correspond to the dune system found along the eastern shore of Lake Ontario.) You will first need to understand the symbols found on the map. After you familiarize yourself with the symbols, study the map legend to learn and recognize the different landforms and features represented on the map.

To begin this activity, locate and mark the places with the highest and lowest elevations on the map. By examining the relationship between the different elevations, landforms and determining the presence or absence of dune systems, several questions can be asked:

- What is the elevation of the tallest dune on the map?
- What is unique about the locations of the dunes, wetlands, ponds, or marshes?
- How do the dunes help to protect these wetland areas from damaging lake storms?

To learn more about the geologic changes that have occurred in this area, you may wish to visit a nature center or museum that has exhibits on the ice age.

Some additional questions to investigate are:

- Why are there dunes found along the eastern shore of Lake Ontario?
- Where else are there dunes in New York State? (or along the Great Lakes system)
- How do the Lake Ontario sand dunes compare to these other dune systems?

To learn more about the formation of the Great Lakes basin, you may want to view the film/video titled *Rise and Fall of the Great Lakes*.



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