



## OUR GREAT LAKE ERIE

Grade 3 and up | 90 – 120 Minutes

### Teacher's Guide

#### Description

In this hands-on field trip, we will investigate Lake Erie both in the classroom and in person! Working in small teams, we will use models to uncover why Lake Erie is important, what lives there and how humans impact the lake. We will hike to the lake and explore our north coast shoreline and conduct authentic water sampling to determine the health of our lake.

*Please arrange for school field trip buses to pick you up at the east end of the Lake Erie parking lot in Huntington Reservation at the conclusion of your field trip time. Available during the school year in the months of September, October, April or May.*

**Adult chaperones recommended:** 4 – 6

#### Content Standards

| Subject                     | Gr | Standard   |
|-----------------------------|----|--|
| Life Science                | 4  | Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful  |
| Life Science                | 5  | Organisms perform a variety of roles in an ecosystem.<br>All of the processes that take place within organisms require energy.   |
| Earth Science               | 7  | The hydrologic cycle illustrates the changing states of water as it moves through the lithosphere, biosphere, hydrosphere and atmosphere.  |
| Climate Literacy Principles |    | 2. Climate is regulated by complex interactions among components of the Earth system.<br>5. Our understanding of the climate system is improved through observations, theoretical studies, and modeling<br>7. Climate change will have consequences for the Earth system and human lives |

## Pre-Trip Activities

### Vocabulary

|                    |             |
|--------------------|-------------|
| abiotic/non-living | invasive    |
| adaptation         | native      |
| aquatic            | non-native  |
| biotic/living      | nutrient    |
| ecosystem          | observation |
| energy             | oxygen      |
| fertilizer         | pH          |
| habitat            | phosphorus  |
|                    | runoff      |

### Books and Field Guides

- Invasive Species Underwater by Richard Spilsbury. PowerKids Press, 2015.
- Twine Line Magazine Series by Ohio Sea Grant. Online at <http://ohioseagrant.osu.edu/products/twineline>

## Post-Trip and Extentsion Activities

- Research ways that humans can improve the health of aquatic ecosystems (e.g., recycling wastes, establishing rain gardens, planting native species).
- Research or conduct a field investigation for an aquatic invasive species that is present in the local community or in Ohio. Examples of research questions: How did the organism get into Ohio? What is being done to control the spread of the species? What is the impact of the species on the native organisms?

## Other Resources

- <http://greatlakesliteracy.net/> (Activities for teachers of all grade levels)
- <http://ohioseagrant.osu.edu/> (Activities for teachers of all grade levels)