

**Mass Audubon's Endicott Wildlife Sanctuary**

346 Grapevine Road  
Wenham, MA 01984



## **Museum Institute for Teaching Science**

**2017 Summer Professional Development Institute for Middle and High School Educators**

*Engaging Your Students in Science and Engineering Practices Using Inquiry*

# **North Shore Region**



**July 17-21, 2017**

***Research and Resiliency: Investigating the Local Effects of Global Changes***

# North Shore Region

## One-Week Institute for Middle and High School Educators *Research and Resiliency: Investigating the Local Effects of Global Changes*

Explore coastal and inland habitats along the North Shore and investigate the ecology of these environments as you experience and design inquiry-based investigations for your students using the Science and Engineering Practices. Come and learn how scientists and land managers work together to protect and preserve the resiliency of local ecosystems and communities. Local habitats and communities are threatened by increased frequency and intensity of storm events, drought, sea level rise, invasive species and road impediments that block the flow of water. Learn how to determine and evaluate the health of an ecosystem, explore engineering solutions that could minimize the negative human impacts to local habitats and communities, and investigate how organisms' ranges are shifting in response to a warming climate. Venture into the field with local scientists and use a variety of tools and techniques to collect, analyze, and communicate field data.



How are human activities impacting our planet's climate, water cycle, and the balance and distribution of species and ecosystems? How are scientists investigating these questions in Massachusetts, and what steps are citizens taking to help have a more positive impact? Assess your own ecological footprint, and consider the most effective ways you can make a difference.

Learn how you can use data collection and analysis to engage your students and introduce them to scientific research and potential career opportunities. Each day will be filled with field studies, "hands-on, minds-on" investigations and discussions aimed to highlight the resiliency of our local habitats. During the course you will also build and take back to your classroom research equipment to use during field studies with your students.

Participate in content and skill development sessions taught by professional educators and scientists at each collaborating partner organization. Daily activities include indoor inquiry-based classroom experiences and outdoor field experiences. Take home investigations you can use in your classroom and a collection of teaching resources and field trip ideas!

- **Learn** how to use the Science and Engineering Practices in your classroom and how they relate to science inquiry.
- **Explore** STEM resources in your community.
- **Discover** how to adapt your current curriculum to meet the revised MA Science and Technology/Engineering Standards.
- **Become** part of a network of teachers from your region and across the state.

**Collaborators:** Mass Audubon Endicott Wildlife Sanctuary, Plum Island Ecosystems LTER, Ipswich River Watershed Association, US Fish & Wildlife Services, Ipswich High School, Boston University, Salem Sound Coastwatch

**Course Dates:** July 17-21 (8:30 am - 3:30 pm); Half Day Introductory Session June 17; Half Day Fall Call-back November 4

**Registration Fee:** \$400/participant; \$375/participant for team of 2 or more teachers from the same school district

**PDPs and Graduate Credit:** Framingham State University (3 credits, 67.5 PDPs, \$225); 40 PDPs available without graduate credit.

Visit [www.mits.org](http://www.mits.org) for more info on this and other Professional Development Institutes and to register online.

For more information contact:

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