

Mass Audubon Drumlin Farm Wildlife Sanctuary
208 South Great Road
Lincoln, MA 01773



Museum Institute for Teaching Science

2017 Hybrid Summer Professional Development Institute for Grades 4-10 Educators

Engaging Your Students in Science and Engineering Practices Using Inquiry

Middlesex Region



On-line June 17-August 4, 2017

On-site July 17-21, 2017

Science in the Field: Utilizing Local Ecosystems as Laboratories for Investigations

Middlesex Region

Hybrid Institute for Grades 4-10 Educators

Science in the Field: Utilizing Local Ecosystems as Laboratories for Investigations

Looking for ways to integrate field research into your classroom? Do you want to model authentic data collection with your students? In this hybrid summer institute, learn more about collaborating with practicing field ecologists, conducting investigations designed by students, collecting environmental data, and participating in citizen science programs. Experience multiple entry points for hands-on, place-based science and learn how to participate in collaborative projects with professional scientists. Get your hands dirty collecting macroinvertebrates, observing bird life and surveying plant species, and muck around in wetland habitats to learn about a rare turtle species being re-established in our region. Connect your students to familiar ecological communities and expand their engagement in Science and Engineering practices of observation, data collection and analysis.



Explore the living laboratories of eastern Massachusetts' ecosystems: forests, wetlands, grasslands, and urbanized areas. Work side-by-side with research ecologists and participate in a project that aims to increase breeding success for cavity-nesting birds. At every step in the field, work with *Mass Audubon* educators to explore instructional practices for working with students to collect data in the field and use it to make predictions and claims about the health of an ecosystem. Determine the amount of structure needed by your students for field research, develop strategies for leveraging time in the field, and devise scaffolding approaches for including complex science and engineering practices. Engage with the *Grassroots Wildlife Conservation's* efforts to protect local rare or threatened populations, and learn about how the benefits of these conservation initiatives are measured. Become part of a network of teachers committed to transforming local habitats into learning laboratories that increase student engagement and learning.

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.

Partners: Mass Audubon Education Department, Grassroots Wildlife Conservation, Mass Audubon Drumlin Farm Wildlife Sanctuary, Mass Audubon Blue Hills Trailside Museum

Course Dates: On-site July 17-21 (9:00 am - 3:30 pm); Half Day Introductory Session June 17; Half Day Fall Call-back November 18

On-line Component: June 17-August 4

Registration Fee: \$425/participant; \$400/participant for team of 2 or more teachers from the same school district

PDPs and Graduate Credit: Framingham State University (4 credits, 90 PDPs, \$300); 50 PDPs available without graduate credit.

Visit 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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