Museum Institute for Teaching Science

2016 Summer Professional Development Institute
For Grades 3-8 Educators

Using Science and Engineering Design Practices to Engage Your Students in Inquiry-Based Learning

Cape Cod Region

Movers and Shakers: Exploring Earth Science and Curriculum Frameworks in the Coastal and Marine Environment

July 11-15

Hands - on Minds - on Inquiry - based
Museum Institute for Teaching Science

Come get your feet wet with inquiry-based learning!

National Marine Life Center
PO Box 269, 120 Main Street
Buzzards Bay, MA 02532-0269

Cape Cod Region

Institute for Grades 3-8 Educators

Movers and Shakers: Exploring Earth Science and Curriculum Frameworks in the Coastal and Marine Environment

What makes the flora, fauna and geology of Cape Cod unique? How does its natural history set it apart from the rest of Massachusetts? Spend a week exploring the geological and topographical features of the Cape and investigating the earth science concepts that are relevant to the Cape's distinctive coastal environment. Uncover evidence of Cape Cod's glacial history and examine landforms, sub-surface topography and changing coastlines to understand and explain its current but changing landscape. Learn and practice core sampling techniques in a tidal marsh before returning to the lab to analyze soil layers that will provide a look back through geological time. Locate and examine kettle holes, learn how they form, and identify the plant and animal species that depend on them for survival. Visit science laboratories in Woods Hole and witness some of the science and engineering practices and instruments involved in studying the ocean processes. Tour a marine animal hospital and examine how Cape Cod's unique geology impacts the biological communities in the region. Over the course of the institute, gain experience with using the Science and Engineering Practices to create exciting inquiry-based, minds-on, hands-on, interdisciplinary STEM investigations for your classroom. Engage with earth science to see what really makes the arm of Massachusetts, Cape Cod, unique.

Partners: National Marine Life Center, Thornton Burgess Society, Mass Audubon's Long Pasture Wildlife Sanctuary, Woods Hole Oceanographic Institute, Massachusetts Maritime Academy

Course Dates: July 11-15 (8:30 am - 3:30 pm); Half Day Introductory Session June 18; Half Day Fall Callback November 5

Registration Fee: $350/participant; $325/participant for team of 2 or more teachers from the same school district

PDPs and Graduate Credit: Cambridge College (3 credits, 67.5 PDPs; $150), Framingham State University (3 credits, 67.5 PDPs; $225); 40 PDPs available without graduate credit. PDPs and graduate credit will be awarded after participation in the Fall Callback.

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 present the Science and Engineering Practices to your students and how they relate to science inquiry.
- **Explore** STEM resources in your community.
- **Get ready** to meet the revised MA Science and Technology/Engineering Standards.
- **Become** part of a network of teachers from your region and across the state.

Visit www.mits.org for more info on this and MITS Professional Development Institutes in other regions and to register online.

For more information contact:

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