Join us for unique professional development courses that connect you with hands-on, minds-on, inquiry-based investigations and increase your STEM content knowledge. Choose from a variety of locations and themes across Massachusetts. Spend a week with fellow teachers on-site at multiple partner organizations, and experience effective, inquiry-based science learning!

- Learn directly from scientists and education professionals to expand your knowledge in a variety of STEM topics.
- Explore science, technology and engineering content by engaging with industry professionals and
- Visit each partner organization's site and engage in inquiry-based investigations.
- Discover resources from museums, science centers and higher education institutions in your community that you can utilize throughout the school year.
- Take on the role of a student as you investigate science content and collaborate with your peers both in the field and in the classroom.
- Participate in content and skill-based development sessions aimed at strengthening your students' interest in and passion for STEM.
- Explore what the Science and Engineering Practices look like in the classroom.
- Earn Professional Development Points (PDPs) while you improve your confidence in teaching science, and even take an institute for graduate credit.

Registration Information

Cost:

\$450/participant.

\$400/participant if attending with one other teacher from your school or district.

\$375/participant if attending with 2 or more other teachers from your school or district.

Early Bird Discount available until May 1st! Use code "EARLYBIRD" when you register to save \$25.

PDPs and Graduate Credit:

40 PDPs are available without graduate credit.

67.5 PDPs and 3 graduate credits are available from Framingham State University for \$225.

67.5 PDPs and 3 graduate credits are available from Cambridge College for \$225.

To learn about these and other institutes and to register online, visit www.wadeinstitutema.org.

Thank you to our 2020 Summer Professional Development Institute Supporters: National Grid Foundation Sanofi Genzyme Sensata Technologies

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Wade Institute for Science Education

science!

Enhance your skills this summer with hands-on, minds-on, inquiry-based

2020 **Summer Professional Development Institutes**

for Grades 4-12 Educators



5-Day Institutes

June 24th - 26th and 29th - 30th July 6th - 10th



www.wadeinstitutema.org

Wade Institute for Science Education 2020 Summer Professional Development Institutes

Join the Wade Institute and our partners for a week of learning and fun this summer!

Cape Cod Region

One-Week Institute for Grades 4-8 Educators

Nature and Design: Connections Between Science, Engineering, and the Marine Environment

The ocean is filled with diverse and fascinating creatures that have adapted to survive a wide range of challenges. Explore

themes of biomimicry as you investigate how nature's innovations can help inform solutions to real-world design problems. Visit field sites to make wildlife observations, tour engineering labs to see examples of marine engineering inspired by adaptations of marine life, connect with research scientists who both inform and rely on technological innovation, and develop standardsaligned, inquiry-based investigations to share with your students.

Partners & Collaborators: National Marine Life Center; Atlantic White Shark Conservancy; Lloyd Center for the Environment; Massachusetts Maritime Academy; Woods Hole Oceanographic Institution; Woods Hole Sea Grant Dates: July 6th - 10th (8:30 am - 4:00 pm)

Housing is available for this region.



North Shore Region

One-Week Institute for Grades 6-12 Educators

Seasons and Cycles in the Coastal and Aquatic Environment: Impacts of Climate Change

Coastal and freshwater environments are home to highly biodiverse ecosystems, providing essential resources for all living things, including humans. As environmental stressors associated with climate change compound, they begin to have larger and larger effects on these systems. Come explore the local impacts of climate change on coastal and aquatic environments as you explore a variety of field sites, interact with naturalists, ecologists and research scientists, learn field data collection techniques, and evaluate long-term climate data. Experience and develop inquiry-based, standards-aligned investigations to bring these concepts into the classroom.

Partners & Collaborators: Mass Audubon's Ipswich River and Endicott Wildlife Sanctuaries; Maritime Gloucester; Plum Island Ecosystems Long Term Ecological Research (LTER); Salem Sound Coastwatch

Dates: June 24th - 26th and June 29th - 30th (8:30 am - 4:00 pm)

Pioneer Valley Region

One-Week Institute for Grades 4-8 Educators

Rivers to Range: Exploring the Pioneer Valley (Integrating Science and Math)

For thousands of years, the Connecticut River has flowed through Pioneer Valley, shaping the land and life around it. Known for its basalt flows, mountain ranges, dinosaur footprints, and fertile soils, the Pioneer Valley exhibits a rich history of geologic change. Join us to explore opportunities for integrating science and math as you learn about the geologic history of the Pioneer Valley. Visit local field sites, delve into museum collections, and immerse yourself in inquiry-based, standards-driven investigations as you learn about how the modern landscape provides clues to a very different past.



Partners & Collaborators: Beneski Museum of Natural History; Hitchcock Center for the Environment; Springfield Science Museum; The Trustees of Reservations

Dates: July 6th - 10th (8:30 am - 4:00 pm)

Southeast Region

One-Week Institute for Grades 6-12 Educators

Science, Technology, and a Changing Environment: Measuring Change to Predict the Future

Southeastern Massachusetts is home to a variety of habitats that support a wealth of plants and animals, all of which respond to our changing climate in interesting and measurable ways. Join engineers, scientists, and naturalists this summer and discover how new technologies with diverse sensory capabilities can transform data collection and data visualization and empower us to understand their impacts more fully as we model these changes and predict how they may affect our quality of life, from our homes to our parks to our workplaces. Find new ways to engage your students with the Science and Engineering Practices, including using mathematics, analyzing and interpreting data and engaging in argument from evidence, and develop standards-driven, inquiry-based investigations that will allow you to incorporate your learning into your students' classroom experience.

Partners & Collaborators: Mass Audubon's Stony Brook Wildlife Sanctuary; Sensata Technologies; Manomet, Inc. Dates: June 24th - 26th and June 29th - 30th (8:30 am - 4:00 pm)

PDPs and Graduate Credit are available in all regions. To learn more about these and other institutes and to register online, visit www.wadeinstitutema.org.