



TEACHERS ON THE ESTUARY: "TOTE"

Climate in the Classroom

June 26 and 27, 2019

Hugh Gregg Coastal Conservation Center, Greenland, NH

**Co-Sponsored by the Great Bay National Estuarine Research Reserve,
the University of New Hampshire Cooperative Extension, and NH Sea Grant**

Teacher Objectives:

- Teachers will become familiar with a 5-week unit plan on Climate Change correlated to NGSS and Common Core, addressing the following questions:
 - C What is climate change and how is climate different from weather?
 - L What is causing climate change?
 - I How do scientists know the climate is changing? What's the evidence?
 - M What are the signs of climate change?
 - A What are the effects of climate change on people?
 - T What are the effects of climate change on the environment?
 - E What can we do to reduce our contribution to climate change?
 - ! How can people prepare for the impacts of climate change?
- Teachers will learn activities that engage both students, as well as their families and community members in conversations about climate change.

** This workshop is funded by the Great Bay National Estuarine Research Reserve, the Great Bay Stewards, NOAA's Office for Coastal Management under the Coastal Zone Management Act in conjunction with the NH Department of Environmental Services Coastal Program.*





AGENDA

Day 1: June 26th

- 8:30 Sign in, welcome, introductions, overview
- 8:45 Introduction to the National Estuarine Research Reserve System, GBNERR, and TOTE
- 9:00 Climate in the Classroom Ignite Session – Amanda Stone, Extension Specialist, Natural Resource and Land Conservation, UNH Extension, and Lisa Wise, Climate Adaptation Program Manager, UNH Extension/NH Sea Grant
- 9:15 Climate Change 101 – Sherry Godlewski, Resilience and Adaptation Manager, NHDES, and Steve Miller, Coastal Training Program Coordinator, GBNERR
- 10:00 Break
- 10:15 Kayak Exploration – Paddle to one of the Reserve’s data stations and discover how real-time data is collected, disseminated, and used by scientists. Tides, currents, and the functions and values of saltmarshes will be explored along the way. All kayaks and equipment provided. No experience necessary. Colleen McClare, Kayak Program Coordinator, GBNERR, and Chris Peter, Research Coordinator, GBNERR
- Noon Lunch (provided)
- 12:50 Picture Posts – How Your Students can Help to Monitor the Environment using their Smartphones, Melissa Brogle, Volunteer Coordinator, GBNERR
- 1:00 In the Field – Are Great Bay Saltmarshes Keeping Pace with Sea Level Rise? How do Scientists Know? Dr. David Burdick, Department of Natural Resources, UNH, and Chris Peter, Research Coordinator, GBNERR
- 2:45 Break
- 3:00 Estuaries 101 Curriculum – Water Quality Graphing Applications for the Classroom
- 3:25 Climate in the Classroom Activity 1: Storm Preparedness Questionnaire
- 3:50 Logistics for Day 2 Overview
- 4:00 Adjourn

Day 2: June 27th

- 8:30 Storm Preparedness Questionnaire Debrief
- 8:45 Implementing the Climate in the Classroom Program at Oyster River Middle School – Chris Hall and Dave Montgomery
- 9:00 Climate in the Classroom Unit Plan – Chris Hall
- 9:30 Kickoff Classroom Presentation and Associated Activities – Amanda and Lisa
- 10:30 Break
- 10:50 Climate in the Classroom Activity 3: Climate Communication and Poster Project Lightning Round
- 11:50 Other Activities (exploring climate through art/poetry and marsh migration clay models)
- 12:05 Lunch (provided)
- 1:00 Climate in the Classroom Activity 4: Resilient and Sustainable Buildings
- 2:15 Break
- 2:30 Climate in the Classroom Activity 7: Climate Café – facilitated dialogue with Shari Melto, Climate Café Coach, and high-school students from the Newburyport area
- 3:30 Challenges and Opportunities to Incorporate this in Your Classroom
- 3:50 Wrap up
- 4:00 Departure

