## Gundalow Shore Programs

During the full day program we offer several options for the shore based programming. These programs are engaging and designed to complement the ship program. A full day with the Gundalow leaves students with a new appreciation for the maritime heritage and marine environment of the Piscataqua Region. Below are the program options for the shore program aligned with frameworks:

## **Frameworks, Standards and Principles**

**<u>Piscataqua People</u>**: Travel back in time and take part in settling the Piscataqua Region. Become a Native American, a Shipbuilder, or a merchant and make decisions about how you live, where you live, and how you adapt to the changing settlement. This role-playing game introduces students to the region and asks them to settle and barter with other early settlers.

Next Generation Science Standards

- 4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth's features.
- HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

NH Frameworks: Social Studies

- SS:GE:4:1.5: Recognize the causes and consequences of spatial interaction on Earth's surface
- SS:GE:4:2.4: Illustrate the ways in which regions change
- SS:GE:4:2.5: Compare and contrast the ways in which different people perceive places
- SS:GE:4:5.2: Examine the ways in which the physical environment provides opportunities or limitations
- SS:GE:6:2.1: Describe the ways in which regions change
- SS:WH:6:2.1: Describe the impact of land and water routes on trade
- SS:HI:4:4.1: Explore major developments and changes in economic productivity, e.g., adoption of Native American crops or use of mass production.

Ocean Literacy

• Principle 6: The ocean and humans are inextricably interconnected.

<u>Then and Now: A History of the Waterfront:</u> Take a walk around Prescott Park and discover the history of the region through stories, photos and the historical landmarks of the area. Take a

step back in time and imagine what Prescott Park looked like when Puddle Dock ran through the area, or find the oldest grave in the cemetery.

NH Frameworks: Social Studies

- SS:GE:4:5.1: Illustrate how people modify the physical environment
- SS:HI:6:4.2: Evaluate the importance of technological inventions and inventors and their impact on American life
- SS:HI:6:5.3: Examine changes in the roles and lives of women and their impact on society

Ocean Literacy

• Principle 6: The ocean and humans are inextricably interconnected.

<u>**Tide-Pooling Scavenger Hunt:</u>** Explore our coastline by looking for different critters in the water's of Piece Island. Spending time along the shore is a wonderful segway into looking at plankton on the Gundalow. Our crew and volunteers will spend time exploring the area with you and answering questions.</u>

Next Generation Science Standards

• 5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

Ocean Literacy

• Principle 5: The ocean supports a great diversity of life and ecosystems.

**Shore-Side Scavenger Hunt:** Our waterfront is a bustling place with activity and lots of things to see. Let students discover the waterfront in small groups using our scavenger hunt as they explore all that a working waterfront has to offer.

NH Frameworks: Social Studies

• SS:GE:4:5.1: Illustrate how people modify the physical environment

**Simple Machines**: Explore how simple machines have been used throughout history to make work easier. Through student exploration, we will try out levers, pulleys, inclined planes, screws and a wedge.

Next Generation Science Standards

- 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost
- MS-ETS1-2. Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

**Water Quality:** During this hands-on, hour long station, students will design several basic scientific hypotheses about what they will find in water of the Piscataqua River. We will then use a series of scientific equipment to test for temperature, salinity, Dissolved Oxygen, pH, and turbidity. Students then prove or disprove their hypothesis and discuss challenges of carrying out real world scientific research.

Next Generation Science Standards

- 4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.
- MS-ESS2-4. Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.
- HS-ESS2-5. Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

Ocean Literacy

• Principle 6: The ocean and humans are inextricably interconnected.

**Sketching in the Park:** After a brief conversation about making artistic observations, students are given supplies and time to doing their own sketching in the park.