

Great Bay Discovery Center School Programs



Here at the Great Bay Discovery Center, we are focused on providing students with an interactive, fun educational experience. The students engage in hands on activities that teach them about the importance of the Great Bay estuary and the cultural history that surrounds Coastal New Hampshire. It is important to us that we incorporate the New Hampshire Life Science and Social Studies Curriculum Standards into our programs. In this brochure, we have provided information that illustrates the main objectives of our activities and how they align with the NH Education Framework.



Fall Program:

Our fall school program educates students about the cultural history surrounding the Great Bay estuary. It primarily focuses on the Geography and the US/NH History aspects of the NH Social Studies Curriculum Standards for grades K-5.

Geography - The core of geography is understanding our physical Earth and human-environment interaction: knowing why people settled in the Great Bay area, and how they make their living and the resources they use.

United States/New Hampshire History- is important in helping students understand and appreciate the legacy of New Hampshire's past and the Great Bay estuary. It exposes students to enduring themes and issues of our past and promotes them to courageously and compassionately meet challenges of the future.



Tom Wiggin, Salt Marsh Farm Boy

Grades: 1-5

Objective: Students will become aware of what life was like for a salt marsh farmer living on Great Bay over 100 years ago. The activity is designed to introduce salt marsh haying as an important part of the cultural history surrounding Great Bay.

Geography (SS:GE:2: Places and Regions)- Students will demonstrate an understanding of the physical and human geographic features that define the Great Bay estuary as well as how culture and experience influence people's perceptions of the area.

1. **SS:GE:4:2.2-** Students will recognize and understand why farmers migrated hundreds of years ago to the Great Bay estuary and how salt marsh hay farming helped to shape the physical lay of the land through human interactions by exploring some physical characteristics of the estuary.

Geography (SS:GE:3: Physical Systems)- Students will explore the characteristics and spatial distribution of ecosystems surrounding the Great Bay.

1. **SS:GE:4:3.4-** Students will learn about salt marsh hay and the role it plays in the estuary. They will also learn about the location and spatial distribution of salt marsh hay in relation to the Great Bay shoreline.
2. **SS:GE:4:3.5-** Students will investigate how the estuary was impacted by their management practices.

Geography (SS:GE:4: Human Systems) - Students will demonstrate an understanding of human migration to the Great Bay estuary; human settlement patterns; and the forces of cooperation and conflict among settlers.

1. **SS:GE:4:4.3-** Students will assess the effects of farmers migrating to the estuary, where competition for resources became a main concern for settlers. They will explore what characteristics drove farmers away from the mainland and to the coast.

Geography (SS:GE:5: Environment and Society) - Students will demonstrate an understanding of the connections and consequences of the interactions between Earth's physical and human systems.

1. **SS:GE:2:5.2-** Students will investigate how farmers and their families use salt marsh hay as a valuable resource for survival.

History (SS:HI:4: Economic Systems & Technology)- Students will demonstrate an understanding of the changing forms of production, distribution and consumption of goods and services over time.

1. **SS:HI:2:4.1-** Students will identify farming as a valuable segment to the New Hampshire state and individual economic benefit during this time period.
2. **SS:HI:4:4.2-** Students will look at the different tools used for salt marsh hay harvesting and the technological advancements made to improve production and transportation.



Trail of the Arrowhead

Grades: 1-5

Objective: Students will become aware of the natural resources of the Great Bay estuary system that were utilized by the Native American inhabitants of coastal New Hampshire over 400 years ago. In particular, focus will be placed on the “msqamskek” or Squamscot Indian tribe that hunted, fished and cultivated the land area where the Discovery Center now stands. This will be accomplished through a guided discovery walk along the trail where emphasis will be placed on the plants and animals utilized by these people. Also, an interpretation of an Abenaki style summer/fall encampment will showcase the cultural history of the Squamscot tribe as it pertains to fishing, hunting, agriculture, and general day to day life along the shore of Great Bay.

Geography (SS:GE:5: Environment and Society) - Students will demonstrate an understanding of the connections and consequences of the interactions between Earth’s physical and human systems.

1. **SS:GE:2:5.1-** Students will recognize the native plants and animals used in the daily lives of the Native American tribes settled in the Great Bay area over 400 years ago.
2. **SS:GE:2:5.2-** Students will investigate the different methods and techniques the Native American tribes used for optimal efficiency of natural resources in the Great Bay estuary.
3. **SS:GE:4:5.2-** Students will examine physical features of the Great Bay’s flora and fauna that first attracted the Native American’s to the estuary.
4. **SS:GE:4:5.4 -** Volunteers will describe the role of natural resources (primarily focusing on the use of native plants) in the daily lives of the Native American tribes by exploring their fishing, hunting, and farming techniques.

History (SS:HI:2: Contacts, Exchanges & International Relations)- Students will demonstrate an understanding of the events, actions and policies of our nation in relation to other peoples governments over time.

1. **SS:HI:4:2.1-** Volunteers will describe the interconnectedness between Native Americans and European settlers, by explaining to the students the historical documentation of Great Bay settlers in the past.

History (SS:HI:3: World Views and Value systems and their Intellectual and Artistic Expressions)- Students will demonstrate an understanding of conceptions of reality, ideals, guidelines of behavior and forms of expression.

1. **SS:HI:2:3.1-** Students will identify groups of Native Americans who have profoundly affected life in the United States as it is today, while focusing on their innovative and artistic history.
2. **SS:HI:4:3.2-** Students will explore how Native American groups, through cultural development, human expression and communication, have enhanced art, music, and literature our state and nation as the first settlers in the Great Bay area.

History (SS:HI:5: Social/Cultural)- Students will demonstrate an understanding of the interaction of various social groups, including their values, beliefs and practices, over time.

1. **SS:HI:4:5.1-** Students will learn about the unique contributions of the Native American tribes to New Hampshire history and culture. Also, they will discover how these contributions shaped the cultural development of social and political institutions and examine the interactions between European colonists and other settlers in the area.



Time's Treasures

Grades: 1-5

Objective: Students will be introduced to artifacts that they “find” that are replicas of objects that may have been used by Native Americans or Colonists that settled around Great Bay.

Geography (SS:GE:5: Environment and Society)- Students will demonstrate an understanding of the connections and consequences of the interactions between Earth’s physical and human systems.

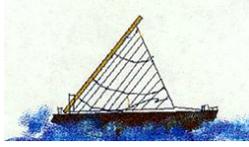
1. **SS:GE:2:5.2-** Students will investigate how Native American and European Colonists used resources in and around the Great Bay estuary.
2. **SS:GE:4:5.2-** Students will examine the ways in which the Great Bay estuary provides opportunities for settlers, by studying artifacts of past human lives and activities in the area between the late 1600s and early 1700s.
3. **SS:GE:4:5.4:-** Students will learn how the role of natural resources provides for daily activities of the Native American settlers and European Colonists.

History (SS:HI:3: World Views and Value Systems and their Intellectual and Artistic Expressions)- Students will demonstrate an understanding of conceptions or reality, ideals, guidelines or behavior and forms of expression.

1. **SS:HI:2:3.1-** Students will identify people that may have lived around the Great Bay in the past and learn how their customs and values have influenced life in the United States and New Hampshire.
2. **SS:HI:4:3.2-** Students will explore how different aspects of art, music, and literature artifacts often reflect and/or influence major ideas, values, and conflicts of a particular time period, especially focused on Native American and Colonial life.

History (SS:HI:5: Social and Cultural)- Students will demonstrate an understanding of the interaction of various social groups, including their values, beliefs and practices, over time.

1. **SS:HI:2:5.1-** Students will identify how the lives of women and children in the past differ from the lives of women and children today in our country and our state.
2. **SS:HI:4:5.1-** Students will develop an understanding for the unique contributions of different groups of people to New Hampshire history and culture by exploring the various styles of past cultures and traditions in the Great Bay area.



Country Grocery Store & Gundalow Exploration

Grades: 1-5

Objective: Students will be introduced to gundalow cargo such as molasses, apple cider, dried fish, cloth, hay, bricks, sugar, candy & flour that were transported by Gundalow to and from ports in Exeter, Dover, Newmarket, Portsmouth, & Durham. Time period: 1830-1900.

Geography (SS:GE:1: The World in Spatial Terms)- Students will demonstrate the ability to use maps, mental maps, globes, and other geographic tools and technologies to acquire, process, report, and analyze geographic information.

1. **SS:GE:4:1.5-** Students will learn about the gundalow trading routes that stop at many of the local ports in the Great Bay area. It will allow them to recognize the causes and consequences of spatial interaction on the Earth's surface through the origin of consumer goods and transportation routes.

Geography (SS:GE:5: Environment and Society)- Students will demonstrate an understanding of the connections and consequences of the interactions between Earth's physical and human systems.

1. **SS:GE:2:5.2-** Students will investigate how the people of the Great Bay used resources in their area to trade between local communities in the Great Bay area.
2. **SS:GE:4:5.2-** Students will look at the ways in which the Great Bay and its tributaries provide opportunities or limitations for communities to connect and interact with each other by water.

History (SS:HI:2: Contacts, Exchanges & International Relations)- Students will demonstrate an understanding of the events, actions and policies of our nation in relation to other peoples and governments over time.

1. **SS:HI:2:2.1-** Students will recognize that the Great Bay is interconnected between many different local towns and the rest of the world via trading routes and transportation by water.

History (SS:HI:4: Economic Systems & Technology)- Students will demonstrate an understanding of the changing forms of production, distribution and consumption of goods and services over time.

1. **SS:HI:2:4.1-** Students will identify different segments of the US/NH economy in the 1800's ranging from food, sugar, and candy production to cotton and hay farming in the Great Bay area.
2. **SS:HI:4:4.2-** Students will discover the importance and impact of the gundalow invention in transporting goods to ports in the Great Bay estuary.



Bounty of the Bay

Grades: 1-5

Objective: Students will be introduced to the many tools and skills that were utilized to harvest fish and wildlife of the Great Bay region. In addition, students will learn that different species were harvested for food, economic gain or as a means to control predation of livestock.

Civics and Governments (SS:CV:2 Structure and Function of United States and New Hampshire Government)- Students will demonstrate an understanding of major provisions of the United States and New Hampshire Constitutions, and the organization and operation of government at all levels including the legislative, executive, and judicial branches.

1. **SS:CV:4:2:2-** Students will understand how New Hampshire Fish and Game creates rules and regulations to protect game and non-game species from overharvesting of animals.

Economics (SS:EC:2 Basic Economic Concepts)- Students will learn about the pillars of a free market economy and the market mechanism.

1. **SS:EC:2:5:1-** Students will be able to define the term natural resource.
2. **SS:EC:4:2:1-** Students will discover why needs and wants of a natural resource can be unlimited while the resource itself is limited if the taking is not regulated.

Geography (SS:GE:3: Physical Systems)- Students will demonstrate an understanding of the physical processes that shape the patterns of Earth's surface and the characteristics and spatial distribution of ecosystems.

1. **SS:GE:2:4:2-** Students will identify what are natural resources of the Great Bay area.
2. **SS:GE:2:5:1-** Students will learn how natural resources found in and around Great Bay were a part of daily life for food, clothing and shelter.
3. **SS:GE:2:5:2-** Students will investigate how people use the resources they found in and around Great Bay.
4. **SS:GE:4:3:4-** Students will recognize that the natural resources in and around Great Bay are found in varying habitats during different seasons of the year.
5. **SS:GE:4:3:5-** Students will investigate how human interaction with the Great Bay ecosystem changed over time due to fluctuating populations of animals and loss of animal habitat.

Geography (SS:GE:4: Human Systems)- Students will demonstrate an understanding of human migration; the complexity of cultural mosaics; economic interdependence; human settlement patterns; the forces of cooperation and conflict among peoples.

1. **SS:GE:4:4:2-** Students will describe the pattern of human migration as populations explored new lands to support the demand of trapping furbearing animals.

Geography (SS:GE:5: Environment and Society)- Students will demonstrate an understanding of the connections and consequences of the interactions between Earth's physical and human systems.

1. **SS:GE:4:5:2-** Students will examine how the Great Bay provided incredible opportunities to the first settlers for harvesting of its natural resources and how over time regulations had to be set to protect those resources to prevent overexploitation.
2. **SS:GE:4:5:4-** Students will be able to describe the natural resources found in and around Great Bay needed in daily life for food, clothing and shelter.

US/NH History (SS:HI:4: Economic Systems and Technology)- Students will demonstrate an understanding of the changing forms of production, distribution and consumption of goods and services over time.

1. **SS:GE:2:4:1-** Students will identify different segments of the United States economy from years past such as the fur trade and shipping of fish and waterfowl.

US/NH History (SS:HI:5: Social/Cultural)- Students will demonstrate an understanding of the interaction of various social groups, including their values, beliefs and practices over time.

1. **SS:HI:2:2:1**- Students will realize that the Great Bay was connected to other parts of the world through trade and shipping routes even several hundred years ago.
2. **SS:HI:2:5:1**- Students will identify how the lives of women and children have changed over time.
3. **SS:HI:4:5:3**- Students will be able to trace the changes in the roles and lives of women and children, and their impact on society and their families.