

Nassau BOCES Outdoor & Environmental Education

Instructional Plan: Canoeing

The overlying objective of the Nassau BOCES Canoeing Program is to provide specific content aligned to each grades' curriculum and real world applications for NYS Common Core Standards. Alignments are on reverse side of this document.

Vocabulary (teacher may add to list or request emphasis)

bow	buoyancy	draft
estuary	flotation	gunwale
keel	launch	leeward
paddle	PFD	port
starboard	stern	thwart
tide	windward	

Program Logistics:

- Group Size: 15 students/naturalist
- 1 adult chaperone/student group
- 1.5-2 hr session is typically combined with another program for a 4 hr. day. All day canoeing is only possible with mid-day high tide
- The program takes place at Caumsett State Historic Park. The Program is also possible at eastern river locations.

Call for pricing and to schedule:

516-396-2264

See us online:

www.nassauboces.org/outdoors



We are more than just a field trip... we provide a learning experience for your students!

Students develop their canoeing skills to observe and collect organisms found in an estuary

Lesson Objectives: Students will be able to...

Develop the canoeing skills necessary to navigate a local body of water and come to understand:

- Important safety rules for success on the water.
- The potential of canoeing as a life-long recreational sport.
- The use of canoes as a “tool” for collecting data to assess the health of an estuarine system.

Describe life in an estuary

- The adaptations of organisms living in a tidal system.
- Food webs and nutrient cycles.
- Predator/prey relationships
- The effect of invasive species

Describe what causes tides and the effects of incoming and outgoing tides on land in terms of:

- Shoreline erosion
- Challenges and practicalities of launching a canoe at low tide.
- Challenges and practicalities of canoeing against the tide

Instructional Activities (can include but not limited to):

- Demonstration and practice of canoeing skills: padding techniques; launching; rafting up.
- Observing water properties and organisms found in an estuary ecosystem.
- Observe the evidence and effects of tidal changes.
- By request only: Use of field instruments to gather abiotic data and collect and observe specimens.
- Observing evidence of human impact, both in the water and along the shoreline.

Assessment

- The program will end with a summative “Q & A.” focusing on the lesson’s objectives and review of safety guidelines.
- The teacher may elect to have students complete data sheets and/or writing activities back in the classroom if data collection was requested.

Standard Alignments for Canoe Program

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Standards Type	Key Standards or Code	Standard Description	Instructional Activities
NYS Standards for Health. Phys. Ed & Family & Consumer	Standard 1: Personal Health and Fitness	Physical Education: Students will perform basic motor and manipulative skills. Students: develop leadership, problem solving, cooperation, and team work by participating in group activities. Family & Consumer: Evident when students practice communication skills that foster positive interpersonal relationships and optimum health for all family members	The canoeing program is skill-based with an emphasis on cooperation and safe decision making, as well as pursuing good communication skills and collaboration.
	Standard 2 A Safe and Healthy Environment	Health Education: Students will demonstrate personally and socially responsible behaviors and will respect themselves and others. Physical Education: Students will demonstrate responsible personal and social behavior while engaged in physical activity. They will understand that physical activity provides the opportunity for enjoyment, challenge, self-expression, and communication.	Correct skills and techniques are taught and safety is stressed. Once ashore, students will be able to self-reflect on how taking a new challenge with perceived risk presents opportunities for leadership and problem-solving and creates a positive experience when all members contribute effort.
	Standard 3 Resource Management	Physical Education: Students will also be aware of some career options in the field of physical fitness and sports.	Our naturalists are role models for an active lifestyle and often provide students with information on requirements for the job.
NYS Science Core Curriculum	Scientific Inquiry S 1.1 thru 1.3; S3.1 thru S3.3	Ask "why" questions in attempts to seek greater understanding concerning observed objects and events; seek clarification, organize objects/data through classification and use of simple charts and tables; interpret and recognize simple patterns/relationships.	The whole session is inquiry and discovery based. Observations of life in the estuary occur "naturally" as students explore the water and shorelines
	Standard 4 Living Environment	Key Idea 1: Living things are both similar to and different from each other and nonliving things. Key Idea 3: Individual organisms and species change over time. Key Idea 4: The continuity of life is sustained through reproduction and development. Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life. Key Idea 6: Plants and animals depend on each other and their physical environment. Key Idea 7: Human decisions and activities have had a profound impact on the physical and living environment.	The Key ideas for Standard 4 are addressed throughout the program. Observations and discussions include organisms' life cycles; adaptations of plants and animals living in a constantly changing environment; nutrient cycles; a web of life, plant and animal adaptations. Evidence of human impact is ever present due to incoming tides. NOTE: Especially supported when data collection is requested by teacher.
NYS Common Core	Supporting Standards	Description	Instructional Activities
ELA Anchor Standards Grades K-5	Comprehension & Collaboration	1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	Students will participate in conversations related to their observations and data collection.
	Presentation of Knowledge and Ideas	4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.	Students in pairs or in groups of 3-4 will be responsible for presenting their observations/collections of organisms to the larger group
	Vocabulary Acquisition and Use	4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.	Students will use content-driven vocabulary throughout the program and practice the use of root words, prefixes and suffixes to determine meaning (example: macro, micro)

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