

## Class Selection 2019

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Our teaching is as experiential as possible with students doing rather than being told. Instructors will frame the lesson, students do the activities, and together end with a reflection of the experience. Through questions, instructors help students identify what they learned.

### Bird of Prey – Raptors or Owls

#### 5-PS3-1 Energy

Warm Beach Camp is a fascinating place to study and observe birds of prey species. We have observed Bald Eagles, Osprey, Red Tailed Hawks, Barn and Screech Owls in the estuary and upper Warm Beach campus. During this class we look at characteristics that define Birds of Prey, and the characteristics of Raptors and Owls like wing span, wing silhouettes and calls. The Owl class students will dissect owl pellets to determine which prey type animal the owl ate. Students will be able to identify Bald Eagle calls as we usually have two nests pairs on site.

### Estuary Habitat Survey – Canoe the Estuary

#### 5-PS3-1 Energy, 5-LS1-1, 5-LS2-1 Ecosystems, 5-ESS2-2 Earth's Systems

Students collect information about the estuary including water temperature, salinity, depth and turbidity. After an estuary briefing, and utilizing pictured animal and plant cards, students will take an inventory of what they find. Students then can identify the plants and animals that make up and flourish in this unique habitat. The class can be taught in canoes if the tide permits canoeing. Students will receive canoeing and safety instructions and are supervised by Warm Beach lifeguards. This class can also be taught by walking out to the tidelands. If you prefer to walk, we encourage you to wear boots or shoes that can get muddy.

### Forest and Soils

#### 5-LS1-1 From Molecules to Organisms: Structures and Processes

The Instructor leads students on a walk into a forest area to discover differences between conifer and deciduous trees. Students will learn to identify our native Douglas Fir, Western Red Cedar, and Big Leaf Maple trees. After establishing each student's hypothesis, small groups of students will test the soil beneath at least one of those trees. Students learn how to perform these tests: pH, temperature, porosity, taking a soil core and determining the amount of light reaching the forest floor. We then compare and contrast the small groups' data to check their hypothesis. When time permits, additional forest activities are taught.

## Game of Life

5-LS2-1 Ecosystems: Interactions, Energy, and Dynamics, 5-PS3-1 Energy

The Game of Life is a predator-prey simulation, which models the animal food/energy web and the transfer of energy from the sun through the web. Students are divided into these “eating” types: herbivores, omnivores and carnivores. They forage for “food,” water, and try to survive in the Northwest forest. After the simulation(s), students debrief what happened: Did they survive? What strategies did they use? How was the simulation real and not real? They review food chains, behavioral and physical adaptations. Students usually discover how difficult survival in the wild can be!

## Habitat Restoration Project

3-5-ETS1-1, 3-5-ETS1-2, 3-5-ETS1-3 all Engineering Design

In 2019, the projects include building bat houses, removing an invasive plant species (Robert’s Geranium), and planting a tree on campus. Past years, other projects have included making and installing bird houses, removing various invasive plant species, caring for eroded areas, and trail improvements. These projects require more school staff for supervision because the students use tools to complete the project.

## Human Impact Studies

5-PS3-1 Energy, 5-LS1-1, 5-LS2-1 Ecosystems, 5-ESS2-2 Earth's Systems

Activities focus on themes that explore and discuss the relationship between farming, urban development, and habitat management. Warm Beach Camp and all neighboring people use the land in a variety of ways. This class looks at the impact and levels of pesticides, animal waste, fertilizers, etc. have on the water in the wetland area. The students are directed through water quality tests including dissolved oxygen, nitrates/or phosphates, pH and others.

## Orienteering with short Compass Lesson

Introduction to the sport of Orienteering. Starting with a short activity on how to use a compass, we move to map instruction using our Camp’s contour maps. This includes how to orient maps with and without a compass. The students and chaperones go out in small groups to locate each of the 10 markers on our Orienteering course. The emphasis is on topographical maps and finding locations using baselines and landmarks.

## Pioneer Skills Challenge

Note: All students from the school do this experience at one time, in small groups.

This class is a unique experience in which students are challenged to “settle” a land segment of our camping grounds as though they are pioneers in the 1800’s. Each small student group works with a teacher or chaperones (who will have a relatively active role). Materials and a list of the individual pioneer tasks will be presented to each group at the Skills Challenge start. Groups are tasked to do everything from building a fire, sewing a journal binding, to milking a “cow,” building shelter, and more!

## Wetlands

5-PS3-1 Energy, 5-LS1-1, 5-LS2-1 Ecosystems, 5-ESS2-2 Earth's Systems

Salt marsh is the predominant wetland at Warm Beach Camp, although there is a unique cirque wetland too. Students will explore and examine wetlands to identify their characteristics. Instructor lead student activities to teach the tremendous value of the wetlands to coastal areas. The class dissects a wetland Cattail plant to discover their adaptations to this wet habitat. The remainder of the class is spent exploring the wetlands as a habitat for birds from behind our bird blind, plus exploring reptiles, amphibians, and mammals.

## Climbing Tower

Our 40’ Climbing Tower is three-sided with varying degrees of climbing challenge. Students choose their own level of challenge and choose when they will stop climbing. Classmates encourage and cheer each other on as Warm Beach facilitators belay climbers in a way that teaches safety, new skills and outlook. When students climb, they come to more fully understand the meanings of determination, grit and perseverance. Each participant is celebrated for their accomplishments in climbing. Typically, students climb more than once.

## Cooperative Challenge or Team Building

Note: Team Building is 2 class times in a row.

A Warm Beach Challenge facilitator leads small groups of students through a sequence of progressively more difficult challenges (group puzzles). Through these challenges, participants learn the value of listening, how to communicate ideas, to work in positive cooperation with others, and be encouraging. These activities give students skills they can apply to future situations where strategic planning is needed to accomplish a goal.

Team Building, a longer activity, allows for a deeper and richer experience with more development in skills and team bonds. We highly recommend Team Building for schools doing Outdoor Education in the fall. The class and teacher will enjoy the benefits all year long.