

Camp Burgess & Hayward Outdoor Education Center

Program Options

We offer a number of program options for youth in the interest areas of *Science and the Environment* as well as *Arts & Humanities*.

Science and the Environment

Orienteering

Our Orienteering Class has three variations:

Compass Crash Course

Compass Crash Course begins with a discussion about direction, sense of direction and magnetism. We then learn the parts of a compass, and how to use the compass to find directions, bearings and to take sight bearings. During the final part of the class we'll complete our compass course around camp.

Orienteering

Orienteering begins with an introduction to maps and familiarization with map and geographical features. Next we learn parts and functions of a compass. Putting the two together, we learn how to orient our map and find our way around camp using our new skills to complete the orienteering course.

Canoe Orienteering

Canoe Orienteering is the same as the first section of the Orienteering Class. Instead of our land-based course, however, we take to the water to complete our Spectacle Pond course. This can be combined with teambuilding classes for a unique day or half-day experience. Ask us for details. Lifejackets are worn during all water-based time of Canoe Orienteering.

Length: 1 period for Compass Crash Course

2 periods for Orienteering and Canoe Orienteering

Age: 7-13 (Compass Crash Course); 10-16 (Orienteering); 13-18 (Canoe Orienteering)

Pond and Coastal Ecology Programs

Pond Ecology

We have several versions of this amazing, hands-on class. Our Kettle Pond Study, Plankton and Phish, and Advanced Pond Ecology all involve short trips on our 30-foot pontoon boat, on our enclosed, freshwater pond. Lifejackets are worn at all times on the water.

Kettle Pond Study

If your group is not planning on doing the WIRS class, this is a good option. Spectacle Pond is our base as we explore the life of a Kettle Pond from its glacial past to its present inhabitants. We take a trip on our pontoon boat to collect samples, including plankton and silt. Time is taken to touch and smell our finds before taking a closer look through the microscope in the nature center.

Plankton and Phish

Targeted at younger children ages 9 and under, we take extra time to get to know the plankton and their importance. We also meet some of the pond's resident fish. Learning is focused on the core areas of food webs and decomposition.

Advanced Pond Ecology

This can build on earlier study and add areas such as pH sampling, temperature testing, stratification and density.

Length: 1 period

Age: 7-16

Predator/Prey

Through an interactive, hands-on, active game, students learn about the delicate balance of predator/prey relationships. Students assume the roles of indigenous animals and learn about the adaptations and behavior of animals without realizing that they are learning. This game is great to give the students a "brain break" from the other science classes, while continuing to learn.

Length: 1 period
Age 7-13

Coastal Ecology

Coastal Ecology involves an off-site trip in our YMCA bus to a local salt marsh and barrier beach and dune system at Sandy Neck. The first part of the class is an introduction to the shells and sea life that we might expect to find on our trip. The majority of the class is spent at the barrier beach and salt marsh communities. Activities include scavenger hunts, a piping plover game and prop based discussion, all with the aim of encouraging exploration and appreciation of these diverse habitats.

Please note that we have a limited number of buses and therefore this class cannot occur in combination with certain other classes. A school employee must accompany each bus.

Length: 2 periods
Age: 7-13

Forest Ecology

There are several different areas we can focus on in this class. Two of the most popular are highlighted below. We can also combine aspects of the wildlife ecology class into the Forest Ecology class.

Tree-mendous

Tree-mendous is aimed at younger groups and uses games and activities to help us learn about trees. The class takes place in the forest and encourages exploration and familiarity with the woodland environment.

Length: 1 period
Age: 7-10

Forest Cycles

Forest Cycles looks at the various cycles of the forest, including photosynthesis, soil decomposition and forest succession. We conduct experiments and take samples for analysis purposes.

Length: 1 period

Age: 9-13

Other Great Programs

A River Runs Through It

Students work in small groups to design a community on a river. Discussion is focused and can include pollution sources and aspects of watershed management. This class is guided by the student's thoughts and abilities and with minor adjustments is suitable to a wide age range. Advanced classes will continue investigation of the watershed below our feet using the Camp GIS.

This is a great class to schedule as a rainy day alternative. This class could also be combined with a visit to the Waquoit Bay National Estuarine Reserve.

Length: 1 period

Age: 7-16

Numbers in Nature

Math in the field offers a great opportunity to reinforce classroom math with real life examples in the field. The class will be designed to students' current level of study, but in the past has included accurately estimating tree heights and sampling an area of forest. We can also look at Fibonacci sequences and other interesting occurrences of numbers in nature.

Length: 1 period

Age: 7-13

WIRS (Water, Ice, Rock & Sand)

Cape Cod's past was shaped by ice, and it's present and future are shaped by water. Where did our sandy soil come from? What does the sand mean for the Cape's water supply, agriculture and forests? Where is all the rock on the Cape? This class moves around our camp taking advantage of our location on a glacial outwash plain near the Sandwich moraine. We explore the stunning Kettle and Kame scenery and examine the most wonderful remnants of the glacial past – Spectacle, Triangle and Lawrence Ponds.

Length: 1 period
Age: 7-13

Wildlife Ecology

Through a series of games and activities in various “habitats” around camp students learn about the native wildlife. Topics include diversity, adaptations, signs and tracking, predator/prey relationships and habitats.

Length: 1 period
Age: 7-13

Forest Fire Ecology

This is a nighttime class that aims to foster an overall appreciation of the use of fire as a tool and also its dangers. We talk about natural and unnatural forest fires, their effect on humans, and our relationships with forest fires. Time is spent discussing the positive effects of forest fires and the adaptations of trees to thrive in a fire prone area. The last part of the class lets the students build their own fire, learning the proper safety steps. We then enjoy some marshmallows while continuing our discussion. Please note: This is a nighttime class.

Length: 1 period
Age: Any

Wampanoag Cultural Campfire

A member of the Mashpee Wampanoag (Cape Cod’s Native people) tribe joins us on camp for an amazing cultural experience. Wearing traditional clothing and carrying artifacts our guest uses story, song and dance to educate and entertain. Please note: There may be extra charges involved with this program; call us for more details. This activity takes place at night. Length 1 period; Age Any.

Night Classes

Night Awareness Activity

A night-time walk through the woods with lots of stops for some amazing activities exploring our senses. Other activities focus on

nocturnal animals, fear of the dark/woods, animal super senses and the night sky. Please note: This activity takes place at night.

Length: 1 period
Age: Any

Solar System Stroll

This class focuses on the planets and provides perspective on their size and place within the solar system. We take a night walk through a scaled-down version of our solar system looking at scaled down "planets" as we go. Along the way we discuss the legends early people created to explain the planets they saw in the sky, and talk about some of the names given to them by other cultures. Please note: This activity takes place at night.

Length: 1 period
Age: 7-16

Star Walk

This activity is a night walk focusing on astronomy and the stars. We take a walk down our woodland paths emerging into one of our meadows to gaze at and talk about the stars and constellations. Discussion includes the legends of ancient civilizations, navigation, and naming our own constellations. Please note: This activity takes place at night.

Length: 1 period
Age: 7-16

New Classes

Ye Olde Sandwiche

We take a look at the local history of Sandwich and Cape Cod, and how human activities have affected the environment down through the ages. Topics can include Native American (Wampanoag) settlement and culture, the early colony, effects of whaling and glassmaking, shipwrecks and the canal, farming (and its end) and tourism. We can even take this class on the road in one of our YMCA-driven 15-passenger school buses. Stops can include the canal and bridge, old

houses and gristmills and, for a small fee, the interactive Sandwich glass museum.

Please note: We have a limited number of buses and therefore this class cannot be done in combination with certain other classes. A school employee must accompany each bus.

Length: 1 or 2 periods, or a whole afternoon
Age: 7-16

Introduction to Cape Cod Outdoor Education

This class is designed for a short period on the first day of a trip to camp. It covers a range of topics around the history, geography and habitats of the Cape, helping to set the scene for subsequent classes. We use aerial photos and stories to reinforce key points. This class is a first-day introduction.

Length: 1 period
Age: 7-12

Cape Cod Weather and Climate

Weather affects all of us, all of the time. This program informs students of the basics of weather formation and safety, using our "lightning trees" to reinforce the power of nature. We learn the difference between weather and climate, and look at the maritime climate of Cape Cod, and what that means for the animals, plants and humans living here.

Length: 1 Period
Age: 7-12

Fishing and Farming on Cape Cod

This class starts out at camp with a brief overview of the topics of the class past and present. We then take to the road in one of our YMCA-driven 15-passenger school buses. First stop is the Sandwich Harbor and fish market where we learn about locally caught seafood and how to set a lobster trap. Second stop is a local cranberry bog where we learn about the berry, how it grows and why this is one of the more sustainable agricultural practices around. The Cranberry Bogs provide stunning scenery in the fall.

Please note: We have a limited number of buses, and therefore this class cannot be done in combination with certain other classes. A school employee must accompany each bus.

Length: 2 periods

Age: 7-16

Meadow Safari

This class takes us to one of our meadows, where we can observe the forest advancing into the meadows edge. We take time to quietly sit and listen to the noises around us, as we let the meadow life go back to how it was before we arrived. Games and activities allow students to see what kinds of wildlife use the meadow. We use nets to skim the grass and look at the insect life.

This class can be turned into a double period by taking samples back to the classroom and examining them under the microscope.

Length: 1 or 2 periods

Age: 7-12

Swamp Safari

The swamp is located on our property on the far side of Spectacle Pond. It is one of the most diverse and productive habitats in the area. This is a free-flowing class that follows the questions of the students and the creatures we find with our nets and our eyes. Students are kept focused, and are encouraged to explore with the guidance of an experienced instructor.

Transportation options for Swamp Safari:

There are several different transportation options that affect the length and 'feel' of the class. Certain options cannot be done in conjunction with other classes.

1. Short pontoon boat ride across Spectacle Pond (1 period).
2. Short ride around the Pond on a YMCA-driven 15-passenger school bus (1 period).
3. Short canoe trip (2 periods due to safety instruction and lifejacket fitting).

4. 30-minute walk each way, with games and activities along the way. The walk is mostly through YMCA-owned woodland, however a short section takes us along a dead-end residential street (2 periods).

Length: 1 or 2 periods

Age: 7-13

Coming Soon

Pickett Nature Center

We are in the process of converting Pickett Hall (our former dining hall) into a nature center.

Biodiesel and Renewable Energy

This program will use our prototype "B2" biodiesel machine to demonstrate how we turn used cooking oil from the kitchen into fuel for our furnace. Future plans include solar and wind-power working models.

Organic Farming and Gardening

Students will get the chance to get their hands dirty as they learn about organic farming techniques.

GIS (Geographic Information Systems)

Students will gain hands-on experience with GIS by interpreting information from our existing database.

Arts & Humanities

Journaling

Journaling can be integrated throughout a stay at Camp, and therefore does not require its own program period. Journal topics are set by YMCA staff for free time or cabin periods. Journaling also makes a

great fallback for inclement weather. Students or school must bring notebooks or journals.

Length: N/A

Age: Any

Ceramics

Students get creative styling clay, and learning how to fire and glaze their creations. We have a variety of suggested projects. Groups need to be on camp for 3-4 days in order to complete the firing process.

Length: 2 separate periods

Age: Any

Dream Catchers

Students create a dream catcher using found items and twine.

Length: 1 period

Age: Any

Acorn Baking

After gathering acorns in the woods students learn how to remove the bitter tasting tannin and how to make acorn flour, before baking acorn muffins for dessert. Only available in the fall.

Length: 2 separate periods

Age: Any