

YMCA Camp Seymour OEE Curriculum Alignment with Washington EALRs for Grades 4 and 5

In addition, all Environmental Education classes meet Environmental and Sustainability Education Standards 1 and 2

Boating	Students learn the basic skills of canoeing and water safety. They learn how to put on a lifejacket, how to board and steer a canoe, and the parts of a boat. During class, it's not uncommon to hear students squeal with excitement when seeing sea stars and crabs right over the sides
Health and Fitness	Activity Meeting Component
1.2.1	Students learn the safety rules of boating, including boating with a buddy, how to maneuver their canoe, how to properly fit a lifejacket.
Vocabulary	paddle, blade, grip, PFD, bow, stern, keel
Climbing Wall	The class is limited to 14 campers and there must be an adult chaperone with each learning group. Students have the incredible opportunity to climb our 38-foot wall. Students are given a safety orientation, roped into a climbing harness, and "belayed" by a trained Camp Seymour staff member. It is a great way for students to build their self-esteem, as well as boosting each other as they encourage their friends!
Health and Fitness	Activity Meeting Component
1.2	Students learn how the Climbing Wall's safety equipment works and how to properly wear seat harnesses and helmets. Students demonstrate proper climbing techniques.
Communication	Activity Meeting Component
2.1.1	Students are encouraged to cheer on their classmates during their attempt on the wall. Language must remain positive during the course of class.
Vocabulary	safety, harness, belay, goal, challenge
Co-op Course	Students love this team-building adventure course! Students start out with challenges on our ball field and progress to more difficult elements on our course. Try swinging on a vine across a flooded valley or making a bridge across a lava field! All activities are designed to facilitate cooperation, communication, and leadership skills.
Communication	Activity Meeting Component
2.1.1	Students demonstrate their abilities to express ideas in a group effectively and become more aware of effective communication.
2.2.1	Students learn to respect other's ideas and understand the importance of a variety of perspectives when attempting to solve a problem.
2.2.2	Students solve complex problems that require multiple participants. They must be sure that all members understand the solution.
2.3.1	Students are aware that different members of the group may have different views on how to solve a problem and may react differently to conflict.
2.3.2	Students use a variety of communication, including verbal and nonverbal clues.
Vocabulary	teamwork, leader, verbal, nonverbal, communication, safety, positive, attitude

Discovery Hike	Students experience the magic of the forest through an entirely sensory experience. Discover a whole new way to look, listen, touch, and smell. This class is designed to heighten students' awareness of the natural environment while taking them on a hike through our 'outback'. Camp's naturalists, teachers or parents can lead this hike into the outback trails.
Communication	Activity Meeting Component
1.1.1	Students focus on different senses individually to experience the forest as a whole.
Forest Ecology	Explore the forest by taking part in a nature walk; not only to identify various plant, animal, and fungi species commonly found at Camp Seymour, but also to learn about their niche in the forest ecosystem. Food webs, diversity, photosynthesis, life cycles, and identification will be covered.
Science	Activity Meeting Component
SYSA	Students discuss the different layers within a forest and identify and characterize plants and animals that are essential to this ecosystem.
SYSB	Students will learn all the parts of a tree, and how they work together. Activity: Build a Tree
SYSD	Students discuss what happens in a forest if a link in the food chain is removed. Activity: PIT
INQB	Students learn tree identification and systematic way of categorizing trees through a field study in Camp Seymour's outback. Activity: Dichotomous Keys
LS1A	Students will identify different species within the forest.
LS1D	By studying a tree cookie or stump, students determine the trees age and the amount of sunlight and energy it produced each year.
LS2A	Students will learn the difference between living and nonliving parts of an ecosystem.
LS2B	Students follow the energy through the food chain moving from the sun to plants, animals, and finally breaking down by decomposition into energy used by plants again. Activity: Photosynthesis activity
LS2C	Students learn to how to create a food web with producers, consumers and decomposers. Activity: Food Web Knot
LS2D	Students learn how plants and animals within the forest change over time in a process called forest succession. Activity: Forest Evolution(rock/paper/scissors game)
EALR Vocabulary	adaptation, air, characteristic, consumer, decomposer, ecosystem, energy, environment, evidence, food web, function, habitat, nutrients, observe, organism, photosynthesis, producer, relationship, species, system
Marine Science I	Students are introduced to the basics of marine biology on Puget Sound. The focus of this class is on tides, estuaries, and marine life, including a hands-on encounter with sea stars, moon snails, crabs, anemones, and many more of the marine creatures in touch tanks in the Powell Marine Science Center.
Science	Activity Meeting Component
ES1A, ES1B	Naturalists and students demonstrate how the moon's gravity causes the tides through a simple model of students and hula hoops. Students make this abstract concept more concrete through the simulation of the earth's rotation and the moon's orbit. (if taking a marine 2 class, this will be demonstrated in marine 2)
LS1A	Students identify characteristics of marine invertebrates in pictures and in the touch tanks; students learn how scientists group these animals into phyla based on these characteristics.
LS1B	Students identify a variety of life functioning parts of creatures, including barnacle cirri, moon snail radula, echinoderm tube feet, crab pinchers, and anemone stinging cells.

LS2A	Students discuss how estuaries have components of both oceans and rivers. They discuss what a unique ecosystem an estuary is for both plants, animals, and people. Activity: Estuary Shuffle
LS2C	Plankton is the essential building block of the marine ecosystem. Students learn different types of plankton as well as how they fit into the food chain.
LS2F	Students learn how human pollution is affecting marine life. Students are also asked to describe ways to properly handle and treat animals on the beach.
LS3D	Students view animals that have not changed over many millions of years. These living fossils include chitons, barnacles, and limpets.
EALR Vocabulary	adaptation, air, characteristic, consumer, ecosystem, environment, evidence, evolution, factor, food web, function, gravity, habitat, investigation, moon, orbit, observe, organisms, photosynthesis, population, producer, relationship, species, system, wind
Marine Science II	One marine class is just not enough! Marine 2 broadens students' knowledge of marine biology, taking a closer look at marine invertebrates, and discovering some of their unique adaptations. Information from the Marine 1 class may be further explored. Tides permitting, students may find themselves exploring on the beach or doing 'BELLY BIOLOGY' off the dock.
Science	Activity Meeting Component
INQA	Students explore the beach and learn more about the animals by asking questions from their experiences.
INQB	Students observe and explore the ecosystem thriving underneath Camp Seymour's boat dock. Activity: Belly Biology
ES1A	Naturalists and students demonstrate how the moon's gravity causes the tides through a simple model of students and hula hoops. Students make this abstract concept more concrete through the simulation of the earth's rotation
LS1B	Students design and answer questions about an imaginary marine animal, and share how it is adapted to living in its tidal zone. Activity: Create-A-Critter
LS1C	Students examine tidal zones and discuss why animals with certain adaptations survive better in certain zones. Activity: Tidal Board
EALR Vocabulary	adaptation, air, characteristic, consumer, ecosystem, environment, evidence, evolution, factor, food web, function, gravity, habitat, investigation, moon, orbit, observe, organisms, photosynthesis, population, producer, relationship, species, system, wind
Nature Drawing and Poetry	This class allows students to have time to appreciate nature in their own ways. After hiking through the woods, students have the opportunity to express their feelings about nature through drawing, writing poetry, or painting. Students discuss types of poetry and share their thoughts and ideas. This class is a great way for campers to have a little down time to reflect during a fun-filled and active camp experience.
Writing	Activity Meeting Component
2.2.1	Students demonstrate different purposes for writing, by recording observations or writing a structured poem.
2.3.1	Students write in a variety of creative forms, such as acrostic poems, haikus, free verse, or prose.
3.1.2	Students create poems based on their observations and emotions in the forest.
3.2.2	Students use literary devices such as metaphors, similes and vivid verbs in their nature writing.
3.2.3	Students write rhyming poems to describe an event, memory or observation.
Communication	Activity Meeting Component
1.1.1	Students will create art or poetry based on observations in the forest.

3.3.1	Students present their poem, story or art with the rest of their learning group.
EALR Vocabulary	describe, metaphor, observe, poem, simile, vivid verb
Orienteering	Instruction takes place on the compass course in the outback. Students use math skills to learn how to use a compass and practice taking bearings and pacing. Students gain self-confidence as they become familiar with the use of a compass in this popular class.
Science	Activity Meeting Component
APPB	Students discuss how people determined direction in the past.
APPG	Students discuss the difference between a compass and a GPS, and how advances in technology have changed the way people find directions.
ES1C	Students discuss how the location of the sun and moon and the North Star can help with determining direction.
EALR Vocabulary	Moon, orbit, predict, technology
Ornithology	Get out binoculars and bird field guides! Students watch for gulls, ducks, great blue herons, and bald eagles from the Environmental Center balcony. Learn what makes birds such an amazing species through a variety of hands-on activities.
Science	Activity Meeting Component
LS1A	Students discuss essential characteristics to classifying an animal as a bird.
LS1B	Students identify the functions of bird feathers, feet, and beaks, including how different beaks and feet allow for different types of feeding.
LS1C	Students identify characteristics that help birds survive better in their environment, including behaviors such as hiding nests and adaptations such as beaks and feet that allow them to find food in their ecosystems. Activity: Jays and Wrens, Feeding Frenzy
LS1D	Students discuss how birds find food. They also learn that birds store food in their crop for times when food is scarce.
LS2C	Students discuss where birds fit in a food web.
EALR Vocabulary	adaptation, air, characteristic, consumer, describe, ecosystem, energy, evolution, food web, function, habitat, investigation, observe, species, system
Reptiles	Designed to teach students basic concepts and general knowledge about reptiles. Teaching and discussing the facts can dispel many myths, misconceptions and irrational fears surrounding these animals. This class will identify reptile characteristics and explain their needs, habitats and habits. Students will have the opportunity to touch some of these animals and to observe them all.
Science	Activity Meeting Component
LS1A	Students will understand the characteristics of reptiles. Activity: Build A Snake
LS1B	Students discuss how snakes use their scales for a variety of things, including light sensory, movement, moisture regulation, protection, camouflage, and biomimicry. They also discuss how a snakes jaw allows it to eat, and its specialized rib cage allows it to swallow. Activity: Build A Snake
LS2A	Students discuss how snakes, being predators and ectothermic, depend on their habitat for survival.
LS2C	Students determine where reptiles belong in a food web.
LS2D	Students learn how the loss of snakes will affect their prey populations.

LS2F	Students discuss how human actions have affected the populations of many species of reptiles, through habitat loss and the pet trade.
LS3B	Students learn how pythons and male boas have vestigial legs. Scientists believe that a long time ago, snakes may have had legs since they have remaining hip bones and bone spurs. Over time, snakes changed to become the "legless" creatures we see today.
Communication	Activity Meeting Component
1.2.2	Students discuss how the media influences people's feeling towards reptiles.
2.3.2	Students discuss how cultural views and the beliefs of influential adults in children's lives can impact children's feelings about reptiles.
EALR Vocabulary	adaptation, characteristic, consumer, ecosystem, energy, environment, evolution, food web, functions, habitat, observe, organism, population, species, system
Salmon	Salmon are a vital part of the Pacific Northwest culture and environment. Find out how much you know about these famous fish. Visit one of Washington's largest natural salmon runs – Lackey Creek. Are there signs of salmon habitation? Is this a healthy stream? What can you and your family do to help conserve salmon habitat? In this class we will discuss many questions and thoughts about salmon and our environment.
Science	Activity Meeting Component
LS2D, LS2F	Students describe what happens to salmon if part of their habitat is destroyed or if the riparian zone is polluted; students also discuss how fishing practices impact the population of salmon.
LS2A	Students learn about the importance of riparian zones and estuaries for salmon reproduction.
LS2C	Students identify where salmon fit into a food web. Activity: Bear, Salmon, Mosquito
EALR Vocabulary	adaptation, characteristic, consumer, describe, ecosystem, energy, environment, factor, food web, habitat, investigation, nutrients, observe, organism, population, predict, relationship, species, system
Sasquatch	Sasquatch... myth or reality? In this class students learn about the controversy surrounding Sasquatch in the Pacific Northwest ecosystems. There have been recent sightings of Sasquatch in the 150 acres of Camp Seymour. Students armed with scientific inquiry will go out into the woods in search of Sasquatch. They will discover how Sasquatch could survive in this ecosystem: what plants could Sasquatch eat? where would Sasquatch take shelter? would Sasquatch use tools to survive? Lastly, will the students see a Sasquatch today?
Science	Activity Meeting Component
INQA	Students formulate a scientific question to investigate about Sasquatch at Camp Seymour.
INQB	Students go on an exploratory hike to investigate the possibility of Sasquatch, by searching for possible food, water, shelter and space.
INQG	Students will generate a conclusion to the question: could Sasquatch survive in our ecosystem?
LS1A	Students categorize Sasquatch based on physical characteristics of mammals and two-legged animals.
LS2A	Students learn how Sasquatch would use the living and nonliving parts of its ecosystem to survive.
EALR Vocabulary	adaptation, characteristic, consumer, ecosystem, environment, evidence, food web, habitat, investigation, observe, predict, question

Squid Dissection	Cephalopod! Students explore what makes squid such unique creatures as they get their hands dirty in squid juice. They learn characteristics of Mollusk and Squid, as well as an enjoyable introduction to why dissection is important and fascinating. Not “Eww, gross” but “Hmmm, how interesting!”
Science	Activity Meeting Component
SYSA, SYSB	Students learn how a squid functions as a whole system, by dissecting it into smaller subsystems (organs).
SYSD	Students discuss the importance of all the organs; for example, could squid survive without their gills?
INQA	Students ask a question about squid that they look to answer during the investigation.
LS1A	Students identify the characteristics of animals in the mollusk phylum. They discuss the range of characteristics that can be used to identify animals within this phylum.
LS1B	Students identify multiple components of a squid's basic life functions, including beak, brain, siphon, ink sac, mantle, eye, finlets, gills, heart, and reproductive organs.
LS3B	Students discuss how countershading (a form of camouflage) helps a squid function in the ocean. They also discuss how the lens of a squid allows for better vision in a low light environment.
EALR Vocabulary	adaptation, characteristic, consumer, describe, ecosystem, food web, function, habitat, investigation, observe, organism, predict, question, species, system
Sustainability and the Living Machine	Camp Seymour installed Washington's largest Living Machine in 2003. What's a Living Machine? It's a sewage treatment facility that will treat effluent to a level that will allow its reuse in irrigation of the play field and in flushing toilets throughout the camp. The most visible part of the treatment facility is a greenhouse, where plants and other living organisms – housed in six aerobic hydroponic tanks – treat camp's wastewater. The final processing is done in a wetland just outside the greenhouse. <u>Essentially the Living Machine is its own ecosystem, accelerating nature's own water purification process!</u>
	This visible demonstration of functional and sustainable systems will provide a living classroom of alternative ways to process waste and reuse resources. The environmental education program will incorporate concepts of sustainability into its curriculum. As a result the more than 8,000 school children, parents and teachers who visit the camp annually will have the opportunity to learn first-hand how sustainable systems can work cooperatively with nature to produce useful end products. So come learn all about Sustainability and our Living Machine!
Science	Activity Meeting Component
SYSB, SYSC	Students learn how our Living Machine cleans water using multiple steps. Activity: Living Machine Tour
INQB	Students perform a water treatment experiment in which they determine which tools they should use to treat/clean water. They develop a plan to remove "waste" from water.
INQG	Students draw conclusions about actual water treatment processes including the best materials to use and the most difficult substances to remove. Students also infer what real treatment plants do with waste water.
INQH	Students orally report their findings in regards to their experiment back to the group.
APPG	Students discuss how waste water treatment and other options, like the Living Machine, improve water quality.
PS2A	Students learn the stages of the water cycle. Activity: water cycle aerobics, Incredible Journey
LS2F	Students discuss why it is important to be sustainable in our use of the earth and its natural resources. Activity: Landfill Legacy, Sustainability Charades, Logging Game
EALR Vocabulary	decompose, describe, energy, evaporate, function, investigation, nutrients, observe, organism, photosynthesis, population, predict, relationship, sustainability, system, technology, wind

Tree-ific	The towering forests of Camp Seymour are an ideal laboratory for learning about trees. Students are trained to be 'tree detectives' as they investigate the mysteries of tree biology and identification. Naturalists use creative activities to teach students how trees function as part of a forest ecosystem.
Science	Activity Meeting Component
SYSA, SYSB	Students "build a tree" becoming xylem, phloem, cambium, and heartwood to learn how a tree functions as a whole system. Activity: Build a tree
LS1A	Students identify different species of trees based on their physical characteristics. Activity: Dichotomous keys
LS2A	Students discuss the different components within a forest and identify and characterize plants and animals that are essential to this ecosystem.
LS2B	Students learn how photosynthesis and producers are the base of the forest food web.
EALR Vocabulary	adaptation, air, characteristic, ecosystem, energy, environment, evidence, factor, function, habitat, nutrients, observe, organism, photosynthesis, producer, relationship, species, system
Underworld	What lurks on the forest floor? Students examine what lies on the forest floor and how nature recycles its resources. Concepts of community, soil, and habitat are discovered through exploration, insect discovery, and the use of field microscopes.
Science	Activity Meeting Component
ES2D	Students discover the many ingredients in soil, including plant and animal matter, minerals, water and air. Activity: Ingredients of Soil Cards
LS1A	Students identify decomposers based on their behaviors and characteristics. Activity: Brock Scopes
LS2A	Students identify living and nonliving parts of the forest floor ecosystem.
LS2B, LS2C	Students investigate the last link in the energy chain, decomposers. Students answer the question of how energy stored in dead material reenters the food chain through decomposition.
EALR Vocabulary	adaptation, air, characteristic, consumer, decomposer, describe, ecosystem, energy, environment, evidence, food web, function, habitat, investigation, nutrients, observe, organism, predict, question, system
Wild Worms	Worms are part of the natural process of decomposition within an ecosystem. Humans have found a way to use that process to their advantage. Vermicomposting is the process of using worms to convert food waste into nutrient rich soil. This class will discuss this process, experience Camp's vermicomposting system, which houses about 100 pounds of worms, and have a hands-on experience with live worms where students measure, observe and use critical thinking skills to answer questions about worms.
Science	Activity Meeting Component
INQD	Students collect data about worms through personal study and observation
ES2E	Students discover how worms, and other decomposers, create all the soil in our ecosystem. Activity: Compost Bin Tour
LS1B	Students identify unique characteristics of worms, including setae, gizzard, crop and segments. Activity: Build a worm
LS2C	Students investigate the last link in the energy chain, decomposers. Students answer the question of how energy stored in dead material reenters the food chain through decomposition.
LS2A	Students learn how essential decomposition is to the food chain and for soil production.

LS2F	Students visit our worm-composting bin where food from their plates is recycled. During spring and fall, students can view plants growing in our garden where the compost is used.
EALR Vocabulary	adaptation, characteristic, consumer, decomposer, describe, ecosystem, environment, food web, function, habitat, investigation, nutrients, observe, organism, producer, question, relationship, system
Wildlife Ecology	Take a walk on the wild side of the food web! Students experience life as predator and prey through activities and role-playing games, learning that in nature, everything is connected. Look at skulls and bones of native wildlife and find out why the mountain goat has eyes on the side of its head, but the cougar has its eyes on the front!
Science	Activity Meeting Component
SYSB, LS2D	Students learn the what could happen to the ecosystem if links in the food chain are removed. They also investigate what happens to specific populations when there are not enough resources. Activity: Oh, Deer!
LS2A	Students identify the living and nonliving parts of ecosystems.
LS2B, LS2C	Students compare the roles of carnivore, herbivore and omnivores in a food web.
LS1A, LS1B	Students identify unique characteristics of herbivores, omnivores, and carnivores, including binocular or monocular vision, horns, antlers, molars, canine teeth, hooves, and paws. Activity: Skull Observation
LS3B	Students discuss a variety of characteristics that allow predator and prey to survive. They investigate how animals that are better adapted survive longer and are better able to reproduce.
EALR Vocabulary	adaptation, characteristic, consumer, describe, ecosystem, energy, environment, evidence, evolution, factor, food web, function, habitat, investigation, observe, organism, population, predict, question, relationship, species, system

