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# Curriculum Guide

## YMCA Camp Seymour Outdoor and Environmental Education Program

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Dear Teachers,

Thank you so much for choosing YMCA Camp Seymour for your Outdoor and Environmental Education (OEE) experience. This curriculum guide has been designed to give you all the tools you need to decide which classes are right for your students and your school's OEE experience.

We want to support you in what you are teaching in the classroom, so we are aligning our classes with the Next Generation Science Standards as well as some Common Core and Health and Physical Education Standards. For all of the classes that are completely aligned, we have included detailed information on how each class relates to the standards.

Please let us know if you have any curriculum questions. We look forward to working with you.

Sincerely,

A handwritten signature in black ink that reads "Scott and Becca Gjertson". The signature is written in a cursive style with a horizontal line underlining the names.

Scott and Becca Gjertson  
Outdoor and Environmental Education Directors

# **YMCA CAMP SEYMOUR**

## **OUTDOOR AND ENVIRONMENTAL EDUCATION GOALS**

YMCA Camp Seymour's Outdoor and Environmental Education Program creates an atmosphere where children are given an opportunity to learn in a natural environment. Our program is set up with many goals in mind, and the unique surroundings of camp help us to achieve these goals. The OEE program provides an opportunity for students to learn more about themselves and their places in the world. Students will learn about relating to each other and being a member of a community. They will discover new things about themselves and the natural world and how each impacts the other. Through growing awareness and appreciation, we help students to become more responsible citizens of our planet.

Each group visiting YMCA Camp Seymour has its own unique goals and objectives. By working together, we can plan a program that satisfies the needs of your school, achieves the goals of Camp Seymour's environmental education, and provides a program that complements school curriculum. Below are our goals:

- ✓ **To foster an awareness of and an appreciation for the natural world.**
- ✓ **To increase knowledge of ecological concepts.**
- ✓ **To help students understand and experience the relationship between themselves and the natural world.**
- ✓ **To strengthen social relationships, encouraging cooperation and communication.**
- ✓ **To promote personal growth, self-confidence, and a sense of belonging in young people.**
- ✓ **To increase understanding of the effects of choices students make.**
- ✓ **To increase students' enjoyment of and comfort in the natural world.**
- ✓ **To foster the YMCA values of Responsibility, Caring, Respect, and Honesty.**
- ✓ **To support students in reaching Washington State Learning Standards.**

## **CURRICULUM AND ACTIVITIES**

We split our curriculum offerings into two categories: 1) Environmental and Science Classes and 2) Adventure Classes. You can use our “quick reference” sheet below to get a clear overview of each class and which standards they hit. Below that, each class and activity is listed with a description, key vocabulary, and which Washington State Learning Standards it meets.

All of our activities and classes take a hands-on approach to science learning and involve investigation, exploration, and discussion. Our classes span Washington State Learning Standards from Next Generation Science Standards (NGSS) to Common Core to Physical Education. We’ve also included which of the Environmental and Sustainability Education Standards we think each class specifically hits as they are a pivotal focus of our program.

### **How to use the quick reference sheet:**

All classes have special notes and logistical considerations listed next to them. For our Environmental and Science Classes, we’ve listed how they fit NGSS Standards and which Crosscutting Concept they hit. We’ve explained exactly how each Practice, Crosscutting Concept, and Disciplinary Core Idea is met in each class description.

For our Adventure Classes, we’ve listed the following class objectives:

- Culture building – students positively shape relationships through challenge and support.
- Problem solving – students collaboratively work to reach a goal while building skills in planning, discussion, and perseverance.
- Decision making – students practice making smart, sometimes challenging, decisions for themselves and their team.
- Goal setting – students discuss how to set incremental goals and step out of their comfort zone.
- Physical coordination – students hone gross and fine motor skills through outdoor challenge.
- Nature Awareness and Appreciation – students immerse themselves in nature, fostering connection and a sense of place.

If a class of either type meets a Health and Wellness, Physical Education or Common Core Standard, it’s specifically list under the class description.

### **Choosing your classes**

For most groups, classes run approximately 1 hour and 15 minutes. For a three-day program, schools take six classes. Camp Seymour naturalists teach all six of the classes. In some cases, schools are responsible for teaching the sixth class; this class can be your own curriculum or a Camp Seymour class. Camp Seymour classes that could be led by a school adult are noted on the reference sheet below.

# Environmental and Science Classes

## ALBATROSS INVESTIGATION

**Class Description:** An Albatross produces a bolus to get rid of indigestible material, very similar to an owl pellet. The students will use the scientific method to investigate the contents of an Albatross bolus\* and learn what they may be eating. Don't tell your students, but the results of our exploration lead us into a discussion about the amount of human-made debris floating in the ocean. By brainstorming solutions, the students can implement action plans in their school or their community once they learn how even as children the choices they make can have a positive effect on the world.

\*Please note that boluses will not look like an owl pellet-in a solid piece. This is because boluses aren't necessarily regurgitated in one piece and they have already been dissected by scientists for research.

**Key Vocabulary:** Explanation, Evidence, Observe, Decision, Responsibility, Community, Action

Dimension from NGSS Framework	Connection to Dimension
<p><b>Science &amp; Engineering Practices</b></p> <ol style="list-style-type: none"> <li>1. Carrying out Investigations</li> <li>2. Constructing Explanations</li> <li>3. Engaging in Argument from Evidence</li> <li>4. Communicating Information</li> </ol>	<ol style="list-style-type: none"> <li>1. Students collaboratively conduct an investigation on an albatross bolus to determine the contents and what produced it.</li> <li>2. Students use their observational evidence and field guides to construct theories as to what they believe is in the bolus and what is happening to albatross habitat.</li> <li>3. Students present their ideas and theories to discuss how plastic ended up in the bolus and what they believe is happening to albatross habitat. Following rules of discussion etiquette, students are encouraged to agree, disagree, elaborate or offer alternatives to each other's ideas.</li> <li>4. Each student takes part in presenting explanations and evidence to the class.</li> </ol>
<p><b>Crosscutting Concept</b> Cause and Effect</p>	<p>After students make observations about the albatross bolus, they discuss the relationship between the contents of the bolus and the impact human have on an ecosystem. This point is clearly illustrated when students identify humans as the cause of plastic refuse in the ocean.</p>
<p><b>Disciplinary Core Idea</b> LS2 Ecosystems: Interactions, Energy, and Dynamics ESS3 Human Impacts on Earth's Systems</p>	<p>Students explore an albatross bolus while gaining content knowledge about the impact humans have on the ocean ecosystem, the albatross' habitat.</p>
<p><b>Performance Expectations that Students Move Toward</b></p> <ol style="list-style-type: none"> <li>1. 3-5-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.</li> <li>2. 3-5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</li> <li>3. 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas</li> <li>3. 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.</li> </ol>	
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information</p>	

gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).

## **BEACH ECOLOGY**

**Class Description:** Available only during low tides\*. Beach Exploration gives the students a chance to explore Camp Seymour’s beach habitat and see organisms in their own environment. Naturalists and students will investigate using shovels, sieves, hand lenses and other tools and get up close and personal with an array of flora and fauna.

Due to its exploratory nature, every session of this class will be different. For this reason, we will not be specifically aligning it with Next Generation Science Standards.

*\*This class requires a beach and is only available seasonally. As a result, this class may not be available depending on the tides*

**Key Concepts & Vocabulary:** adaptation, characteristic, ecosystem, environment, evidence, function, habitat, investigation, observation, organism

### **Washington Physical Education Learning Standards**

Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns

Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits

Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.

Personal Responsibility, Rules and Etiquette, Safety

Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.

Challenge, Self-Expression and Enjoyment, Social Interaction

### **Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards**

1. The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).

## **THE FOREST FLOOR:**

**Class Description:** 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.

**Key Vocabulary:** adaptation, characteristic, decomposer, describe, ecosystem, environment, evidence, habitat, investigation, nutrients, observe, organism, predict, question, system

### **Dimension from NGSS Framework**

### **Connection to Dimension**

#### **Science & Engineering Practices**

1. Asking Questions
2. Carry Out Investigations
3. Constructing Explanations
4. Engaging in Argument from Evidence
5. Communicating Information

1. Children discuss scientific and non-scientific questions to see if they can explain any phenomenon with their investigation.
2. Students investigate the forests around them for evidence of life in the forest floor.
3. After examining their collections more closely under Brock scopes, children construct explanations as to what organisms they are seeing and how they might interact.
4. Students share and discuss their explanations.

	They're encouraged to elaborate and politely disagree with one another. 5. Throughout the class, students are asked to share their ideas and theories with one another.
<b>Crosscutting Concept</b> Structure and Function	In investigating organisms of the forest floor, especially through Brock scopes, students explore the shapes, structures and subsequent roles of the organisms in their ecosystems.
<b>Disciplinary Core Idea</b> LS1 From Molecules to Organisms: Structures and Processes LS2 Ecosystems: Interactions, Energy, and Dynamics	The forest floor offers insight into the structures of organisms and their relationships within this, and across multiple, ecosystems.
<b>Performance Expectations that Students Move Toward</b> 1. 3-5-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment. 2. 3-5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. 3. MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems	
<b>Washington Physical Education Learning Standards</b>	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Safety
<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>	
1. Ecological, Social, and Economic Systems: Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels. 2. The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	

## **FOREST INVESTIGATION:**

**Class Description:** Students will hike through Camp Seymour's forest, building skills to help them construct explanations and engage in argument from evidence. Students start by practicing detailed observations both individually and as a group. After reviewing guidelines and etiquette of group discussion, students use their observations skills to, as a group, construct an explanation for the origin of a mystery object found in our forests. Students are then given field guides that outline organisms found in our local ecosystem, as well as evidence that they leave behind. With their new skills and this information, students end their class with an investigation of a disappearing log. Together, they must argue the timeline of what they think happened to the log and what organism they think have played a part in the tree's life, death and decomposition. For a deeper dive, choose two class blocks.

**Key Vocabulary** adaptation, cause and effect, characteristic, claim, conclusion, data, evidence, hypothesis, investigation, observation, organism, question

<b>Dimension from NGSS Framework</b>	<b>Connection to Dimension</b>
<b>Science &amp; Engineering Practices</b> 5. Carrying out Investigations 6. Constructing Explanations	5. Students collaboratively conduct an investigation on a decomposing tree to determine what has happened to it.

<p>7. Engaging in Argument from Evidence 8. Communicating Information</p>	<p>6. Students use their observational evidence and field guides to construct theories as to what they believe is happening in the forest around them. 7. Students present their ideas and theories to each to discuss what they believed has happened to the log. Following rules of discussion etiquette, students are encouraged to agree, disagree, elaborate or offer alternatives to each other's ideas. 8. Each student takes part in presenting explanations and evidence to the class.</p>
<p><b>Crosscutting Concept</b> Cause and Effect</p>	<p>As students make observations about the forest around them, they discuss how many observations are an effect of an organism or phenomenon. This point is clearly illustrated as they use their field guides to identify the effects of a particular organism.</p>
<p><b>Disciplinary Core Idea</b> LS2:Ecosystems: Interactions, Energy and Dynamics</p>	<p>Students engage in an investigation and gain content knowledge regarding ecosystem interactions in the forest around them.</p>
<p><b>Performance Expectations that Students Move Toward</b> Because this class is skills-based, we believe that students are moved toward any NGSS performance expectation that requires them to construct an explanation or engage in argument supported by evidence.</p>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b> 4. 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. 5. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas 6. 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. 7.</p>	
<p><b>Washington Physical Education Learning Standards</b></p>	
<p>Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns</p>	<p>Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits</p>
<p>Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.</p>	<p>Personal Responsibility, Rules and Etiquette, Safety</p>
<p>Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.</p>	<p>Challenge, Self-Expression and Enjoyment, Social Interaction</p>
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).</p>	

## **LIFE & DEATH IN THE ESTUARY**

**Class Description:** Students become herbivores, omnivores, and carnivores. They must survive life in the estuary by meeting their needs in the food chain. Can they collect enough food and water without being eaten? Beware; wildlife biologist (adults) will capture any creature breaking the laws of nature. (Also available as a last morning activity)

**Key Vocabulary:** characteristic, consumer, ecosystem, energy, environment, factor, food web, function, habitat, nutrients, population, predict, relationship, species, system

<p><b>Dimension from NGSS Framework</b></p>	<p><b>Connection to Dimension</b></p>
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<p><b>Science &amp; Engineering Practices</b></p> <ol style="list-style-type: none"> <li>Using Models</li> <li>Constructing Explanations</li> <li>Engaging in Argument from Evidence</li> </ol>	<ol style="list-style-type: none"> <li>This game is, itself, a model of population dynamics and predator-prey relationships in an estuary ecosystem. With each round, Naturalists manipulate conditions to mimic the dynamic equilibrium of an ecosystem.</li> <li>Throughout the game, as conditions and results change, children are asked to construct explanations as to what has happened and why.</li> <li>Students share and discuss their explanations. They're encouraged to elaborate and politely disagree with one another.</li> </ol>
<p><b>Crosscutting Concepts</b></p> <ol style="list-style-type: none"> <li>System Models</li> <li>Cause &amp; Effect</li> </ol>	<ol style="list-style-type: none"> <li>This class is a study of the estuary ecosystems as a system and a model through which to study it.</li> <li>As the conditions of the game change, students see the effects of those changes on the model.</li> </ol>
<p><b>Discipline</b></p> <p>LS1: From Molecules to Organisms: Structures and Processes</p> <p>LS2: Ecosystems: Interactions, Energy, and Dynamics</p> <p>LS4: Biological Evolution: Unity and Diversity</p>	<p>As a model of an ecosystem, students study the forces that contribute to an organism's ability to survive in its particular ecosystem. These forces include the individual's biology, interactions within the ecosystem and how surviving organisms pass on their traits.</p>
<p><b>Performance Expectations that Students Move Toward</b></p> <ol style="list-style-type: none"> <li>3-5-LS1-1 Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.</li> <li>3-5-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</li> <li>MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.</li> <li>MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas</li> <li>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.</li> </ol>	
<p><b>Washington Physical Education Learning Standard</b></p>	
<p>Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns</p>	<p>Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits</p>
<p>Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.</p>	<p>Personal Responsibility, Rules and Etiquette, Safety</p>
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).</p>	

## MARINE INVESTIGATION

**CLASS DESCRIPTION:** Students will explore marine invertebrates through an NGSS investigative lens. An emphasis on critical thinking and careful observations allows students to effectively conduct a scientific experiment while interacting with marine creatures in our touch tanks. The students will be

challenged to ask testable questions, develop a hypothesis, record data, and formulate a conclusion based on evidence.

**Key Concepts and Vocabulary:** adaptation, cause and effect, characteristic, claim, conclusion, data, evidence, hypothesis, investigation, observation, organism, pattern, question

Dimension from NGSS Framework	Connection to Dimension
<b>Science &amp; Engineering Practices</b> 1. Asking Questions 2. Carrying out Investigations 3. Analyzing and Interpreting Data 4. Constructing Explanations 5. Engaging in Argument from Evidence 6. Communicating Information	1. Students discuss and engage with scientific and non-scientific questions. 2. Students are assigned a non-scientific question to answer through a pre-designed experiment. 3. Students collect and analyze data from their experiment. 4. Using their data, children are expected to create a claim supported by evidence and reasoning. 5. In small and large groups, students compare their claims and discuss their findings to arrive at the best answer to their question. 6. Students present their findings to one another and the whole class.
<b>Crosscutting Concept</b> Cause and Effect	Each of our experiments is based on a scientific question that reflects a cause and effect relationship.
<b>Discipline</b> Life Sciences	Because this class is skills-based, no specific core idea is discussed. Their interactions with living organisms have led us to classify the discipline of this class as "Life Sciences."
<b>Performance Expectations that Students Move Toward</b> Because this class is skills-based, we believe that students are moved toward any NGSS performance expectation that requires them to construct an explanation regarding organisms on which they've collected data.	
<b>Common Core Speaking and Listening Standards for Grades 3-6</b> 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. 2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas 3. 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.	
<b>Common Core Writing Standards 3rd-6th Grade</b> 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. 2. Conduct short research projects that build knowledge through investigation of different aspects of a topic. 3. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.	
<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>	
The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	

## ORNITHOLOGY (BIRDS)

**Class Description:** Students have the opportunity to learn about Citizen Science in this hands on class where students interact with real bird specimens. In pairs students use observation skills to make predictions about their bird specimen, identify their bird using a field guide, and present and defend on their bird based on their observations. Students learn how they can contribute at home through Citizen Science by volunteering for a real research project.

**Key Vocabulary:** Adaptation, Characteristic, Describe, Ecosystem, Energy, Evolution, Habitat, Investigation, Observe, Species, System

Dimension from NGSS Framework	Connection to Dimension
<p><b>Science &amp; Engineering Practices</b></p> <ol style="list-style-type: none"> <li>1. Carrying Out Investigations</li> <li>2. Analyzing Data</li> <li>3. Constructing Explanations</li> <li>4. Engaging in Argument from Evidence</li> <li>5. Communicating Information</li> </ol>	<ol style="list-style-type: none"> <li>1. Students investigate a bird specimen to determine what species it is.</li> <li>2. Students will record information and evidence from their specimen that they will use to determine its species. Students combine their own observations with information from field guides to identify their birds.</li> <li>3. Students will construct a claim for which species, supported by evidence from their investigation.</li> <li>4. Students will discuss each other's findings and will be required to explain their claim.</li> <li>5. Each group will present their findings to the class.</li> </ol>
<p><b>Crosscutting Concept</b> Structure and Function</p>	<p>Students investigate the characteristics and structure of their bird specimen to determine its species and how it survives in its ecosystem.</p>
<p><b>Disciplinary Core Ideas</b></p> <p>LS1 From Molecules to Organisms: Structures and Processes</p> <p>LS2 Ecosystems: Interactions, Energy, and Dynamics</p> <p>LS3 Heredity: Inheritance and Variation of Traits</p> <p>LS4 Biological Evolution: Unity and Diversity</p>	
<p><b>Performance Expectations that Students Move Toward</b></p> <ol style="list-style-type: none"> <li>1. 3-5-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.</li> <li>2. 3-5-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</li> <li>3. 3-5-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</li> <li>4. MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas</li> <li>3. 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.</li> </ol>	
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).</p>	

## REPTILES:

**Class Description:** What is a reptile? What about a reptile's physical structure has led scientists to classify it as a "reptile?" Can we confidently argue that an animal is a reptile based solely on observational evidence? In this class, students seek to answer these questions by investigating living reptiles and objects related to reptiles. Students will make rich observations, ask probing questions, and discuss their ideas in small groups and as a whole class. Many will grow personally, pushing through fears and misconceptions as they hold and interact directly with our live animals. The ultimate goal is for students to construct a claim regarding reptiles that they can support with observational evidence from their class.

**Key vocabulary:** Adaptation, Characteristic, Function, Organism, Evolve, Species, Claim, Evidence, Reasoning, Discuss

Dimension from NGSS Framework	Connection to Dimension
<p><b>Science &amp; Engineering Practices</b></p> <ol style="list-style-type: none"> <li>1. Carrying out Investigations</li> <li>2. Constructing Explanations</li> <li>3. Engaging in Argument from Evidence</li> <li>4. Communicating Information</li> </ol>	<ol style="list-style-type: none"> <li>1. Students conduct a hands-on investigation of live reptiles and objects related to reptiles.</li> <li>2. Students are asked to construct explanations supported by evidence. They are pushed to site the source of their evidence and are encouraged to rely largely on their own observations to support claims.</li> <li>3. Children discuss what they are observing in small groups and large groups. They are asked to respectfully listen to others' explanations and discuss conflicting ideas with one another.</li> <li>4. Students are asked to communicate their scientific explanations and supporting evidence orally in pairs, in small groups, and to the whole class.</li> </ol>
<p><b>Crosscutting Concept</b> Structure and Function</p>	<p>Students investigate the physical characteristics, or structure, of reptiles to determine their function and how they help the animal to survive.</p>
<p><b>Disciplinary Core Ideas</b></p> <p>LS1: From molecules to organisms: Structures and processes          LS3: Heredity: Inheritance and variation of traits          LS4: Biological evolution: Unity and diversity</p>	<p>Students investigate the biology and structure of individual species of reptile, compare reptiles to one another, and discuss how reptiles are shaped by their environment.</p>
<p><b>Performance Expectations that Students Move Toward</b></p> <ol style="list-style-type: none"> <li>1. 3-5-LS3-1 Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</li> <li>2. 3-5-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.</li> <li>3. 3-5-LS4-2 Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.</li> <li>4. 3-5-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</li> <li>5. 3-5-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</li> <li>6. MS-LS4-2 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships.</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas</li> <li>3. 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.</li> </ol>	
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).</p>	

**SALMON:**

**Class Description:** Salmon are a vital part of the Pacific Northwest culture and environment. Find out how much you know about these famous fish. Visit a natural salmon run – 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.

\*Although we can lead this class any time of the year, our Salmon Class is best from late-November through mid-January when the chum salmon run through Glen Cove and up Lackey Creek.

**Key Vocabulary:** adaptation, characteristic, consumer, describe, ecosystem, energy, environment, factor, food web, habitat, investigation, nutrients, observe, organism, population, predict, relationship, species

Dimension from NGSS Framework	Connection to Dimension
<b>Science &amp; Engineering Practices</b> 1. Defining Problems 2. Using Model	1 and 2. The class is spent using one large model activity that represents the salmon life cycle to define and understand the problems facing salmon survival.
<b>Crosscutting Concepts</b> 1. Systems and System Models 2. Cause and Effect	1. The class, itself, is a model of the salmon life cycle and, through it, students will better understand its boundaries, properties and functions. 2. Naturalists will manipulate conditions in the model to represent forces that affect the survival of salmon. Students will see the results of these manipulations in the model. 3.
<b>Disciplinary Core Ideas</b> LS1 From Molecules to Organisms: Structures and Processes LS2 Ecosystems: Interactions, Energy, and Dynamics LS3 Heredity: Inheritance and Variation of Traits LS4 Biological Evolution: Unity and Diversity	Through this model of a salmon life cycle, students study the forces that contribute to salmon's ability to survive in its particular ecosystem. These forces include the individual's biology, interactions within the ecosystem and how surviving individual's pass on their traits.
<b>Performance Expectations that Students Move Toward</b> 1. 3-LS1-1 From Molecules to Organisms: Structures and Processes: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. 2. 3-LS3-2 Heredity: Inheritance and Variation of Traits: Use evidence to support the explanation that traits can be influenced by the environment. 3. 3-LS4-3 Biological Evolution: Unity and Diversity: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. 4. 3-LS4-2 Biological Evolution: Unity and Diversity: Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing 5. 4-LS1-1 From Molecules to Organisms: Structures and Processes: Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. 6. MS-LS4-4 Biological Evolution: Unity and Diversity: Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.	
<b>Washington Physical Education Learning Standards</b>	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Safety
<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>	
1. The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place). 2. Sustainability and Civic Responsibility Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.	

## **SQUID DISSECTION:**

**Class Description:** Not “Ewww,” but “Hmmm... Interesting.” Students carry out a dissection of a California Market Squid, investigating how each fascinating part serves an indispensable function in the biological system that is a living squid. They’ll discuss what a student can hope to discover during a dissection, practice making rich and descriptive observations, construct and discuss explanations, and predict what might happen if a particular part of a squid’s system were removed. Our objective is for students to gain a stronger understanding of science “in-action” by increasing their ability to make deep observations, ask testable questions and construct well supported arguments.

**Key vocabulary:** Adaptation, Characteristic, Function, System, Organism, Evolve, Claim, Evidence, Reasoning, Discussion

<b>Dimension from NGSS Framework</b>	<b>Connection to Dimension</b>
<b>Science &amp; Engineering Practices:</b> 1. Asking Questions 2. Carrying out Investigations 3. Constructing Explanations 4. Engaging in Argument from Evidence 5. Communicating Information	1. Students discuss scientific and non-scientific questions. 2. Students carry out a dissection of the squid, investigating it as a biological system. 3. Students construct a prediction of what would happen if a particular anatomical feature were removed from the squid. 4. Throughout the dissection, children discuss what they are observing in small groups and large groups. They are asked to respectfully listen to others’ explanations and discuss conflicting ideas with one another. 5. Students are asked to communicate their scientific explanations and supporting evidence orally in pairs, small groups and to the whole class.
<b>Crosscutting Concept</b> Structure and Function	Students investigate the structure, and substructures, of the squid to determine how it lives and survives in the marine environment.
<b>Disciplinary Core Ideas</b> LS1: From molecules to organisms: Structures and processes LS3: Heredity: Inheritance and variation of traits LS4: Biological evolution: Unity and diversity	Students investigate the biology and structure of the squid, compare their specimens to one another, and discuss how the environment has shaped both the species and individuals within the species.
<b>Performance Expectations that Students Move Toward</b> 1. 3-5-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment. 2. 3-5-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. 3. 3-5-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. 4. MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals’ probability of surviving and reproducing in a specific environment.	
<b>Common Core Speaking and Listening Standards for Grades 3-6</b> 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. 2. Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas 3. 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.	
<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b> The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	

## **STREAM TABLE:**

**Class Description:**

**NEW!**

Students begin by exploring a watershed leading to the Puget Sound while learning the anatomy of a river system, then move to our interactive stream table for hands-on instruction. The stream table provides a hands-on experience in watershed dynamics: how

landforms are affected by water and weathering forces from glacier to ocean, as well as how humans can impact and are impacted by these powerful natural processes.

**Key vocabulary:** Geology, watershed, river, meander, oxbow lake, delta, flood plain, wetlands, sediment, weathering, erosion, transport, deposition

Dimension from NGSS Framework	Connection to Dimension
<b>Science &amp; Engineering Practices:</b> 1. Asking Questions 2. Defining Problems 3. Using Models 4. Carrying out Investigations 5. Constructing Explanations 6. Engaging in Argument from Evidence 7. Communicating Information	1. Students engage in “I notice, I wonder, It reminds me of” utilizing a seasonal stream bed. 2. – 3. Students use the stream table model to define problems moving water can create in the real world 4. – 7. Students are asked to make predictions, share those predictions using evidence, and communicate how they think water will move through the stream table and what impacts it will have in the model.
<b>Crosscutting Concepts</b> 1. Systems and System Models 2. Stability & Change 3. Cause & Effect 4. Patterns	1-2. The stream table serves as a watershed model, allowing students to alter the dynamics of the model by placing dams, slowing down or speeding up water flow, or changing the topography. 3. Students manipulate the landscape within the stream table, then observe and discuss the effects of their changes on the land and the flow of water. 4. Students observe patterns in samples of rocks and categorize them accordingly.
<b>Disciplinary Core Ideas</b> ESS2C: The Role of Water in Earth’s Surface Processes ESS3B: Natural Hazards	Students use systems thinking to understand cause and effect, speeding up geologic time by manipulating the stream table model and transfer concepts learned in the model to environmental impacts including erosion and landslides.
<b>Performance Expectations that Students Move Toward</b> 1. 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. 2. 4-ESS2-1 Make observations to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. 3. 5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, or atmosphere interact	
<b>Common Core Speaking and Listening Standards for Grades 3-6</b> 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. 2. Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas 3. 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.	
<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>	
The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	

## **SUSTAINABLE SYSTEMS:**

**Class Description:** Students explore our Sustainability Center to find real life examples of sustainable systems including our Living Machine<sup>1</sup> and Aquaponics system<sup>2</sup> and consider these systems as inventions to solve a problem. Afterward, in small groups, students will work collaboratively to engineer a possible solution to a real-world problem – how to clean polluted water. Students will implement the design process of design, build, test, and rebuild. They will be challenged to discuss and defend the design decisions they made as they relate to form and function and specific failure points.

<sup>1</sup>Camp Seymour installed Washington’s largest Living Machine in 2003. A Living Machine (Living Machine® Technology) is a sewage treatment facility that treats effluent so the water can be reused in irrigation. The most visible part of the treatment facility is a greenhouse,

where plants and beneficial bacteria in six aerobic hydroponic tanks efficiently treat camp's waste water. The final processing is done in a wetland just outside the greenhouse. The Living Machine is its own ecosystem and modeled from a wetland, accelerating nature's own water purification process!

<sup>2</sup>Camp Seymour installed an Aquaponics System in December 2016.

"Aquaponics is the cultivation of fish and plants together in a constructed, recirculating ecosystem utilizing natural bacterial cycles to convert fish waste to plant nutrients."

– Aquaponic Gardening Community, November 2010

This invention allows humans to 1) grow food in areas where the soil is too nutrient deficient and 2) use water more efficiently than conventional agriculture. At Camp Seymour, we use it as another model of sustainable living.

**Key Vocabulary:** constraints, engineering, fair tests, form and function, invention, model, predict, specific failure points, sustainability, system, technology

Dimension from NGSS Framework	Connection to Dimension
<p><b>Science &amp; Engineering Practices:</b></p> <ol style="list-style-type: none"> <li>1. Defining Problems</li> <li>2. Carrying Out Investigations</li> <li>3. Analyzing and Interpreting Data</li> <li>4. Develop and Using Models</li> <li>5. Design Solution</li> <li>6. Engaging in Argument from Evidence</li> <li>7. Communicating Information</li> </ol>	<ol style="list-style-type: none"> <li>1. Student discuss to discover themselves what problem the Living Machine helps to solve.</li> <li>2. Students carry out an engineering investigation by testing the effectiveness of their design.</li> <li>3. Students will analyze the results of their design testing to improve upon their design. They will compare each other's results to come up with the best design.</li> <li>4. The student water purification design will be a modifiable prototype that children can adjust between tests to improve efficacy.</li> <li>5. Students will propose their design solution based on specific criteria, such as failure points.</li> <li>6. Students will discuss with one another how their design and testing process went, using evidence to argue whether or not it was effective.</li> <li>7. Students present the form and functions they chose for their prototype to the class. They must justify why they designed their solution the way they did and explain how it works.</li> </ol>
<p><b>Crosscutting Concepts:</b></p> <ol style="list-style-type: none"> <li>1. Systems and System Models</li> <li>2. Cause and Effect</li> </ol>	<ol style="list-style-type: none"> <li>1. The problem of wastewater purification is defined and one example of a designed system solution is given. Students then design their own system model as a potential solution.</li> <li>2. In testing and redesigning their prototype, children engage in cause and effects relationships of engineering and design.</li> </ol>
<p><b>Disciplinary Core Idea:</b> ETS1: Engineering Design</p>	<p>Students engineer and design a solution to the issue of wastewater purification.</p>
<p><b>Performance Expectations that Students Move Toward:</b></p> <ol style="list-style-type: none"> <li>1. 3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.</li> <li>2. 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</li> <li>3. 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.</li> <li>4. MS-LS2-5 Evaluate competing design solutions for maintaining biodiversity and ecosystem services.</li> <li>5. MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.</li> <li>6. MS-ETS1-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> </ol>	



2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas
3. 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.

**Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards**

Ecological, Social, and Economic Systems: Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels.

***WILDLIFE ECOLOGY:***

***Class Description:*** 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!

***Key Vocabulary:*** adaptation, characteristic, consumer, data, describe, ecosystem, environment, evidence, evolution, food web, habitat, investigation, observation, organism, question, species

Dimension from NGSS Framework	Connection to Dimension
<p><b>Science &amp; Engineering Practices:</b></p> <ol style="list-style-type: none"> <li>1. Using models</li> <li>2. Carrying out investigations</li> <li>3. Analyzing and interpreting data</li> <li>4. Constructing explanations</li> <li>5. Engaging in argument from evidence</li> <li>6. Communicating information</li> </ol>	<ol style="list-style-type: none"> <li>1. Students use animal skulls to create a model of an ecosystem food web, moving skulls and adding arrows to represent predation.</li> <li>2. Students investigate skulls in small groups, gathering evidence to support arguments of what type of consumer it might be and of what species.</li> <li>3. Students' observational data is added to a whole-class data table. Students analyze and identify trends in the data to make claims about the skulls.</li> <li>4. Students are consistently pushed to use their own observational data to make and support claims.</li> <li>5. Students are asked to respectfully listen to others' explanations and discuss conflicting ideas with one another.</li> <li>6. Students are asked to communicate their scientific explanations and supporting evidence orally in pairs, small groups and to the whole class.</li> </ol>
<p><b>Crosscutting Concept</b> Structure and Function</p>	<p>Students investigate the structure of skulls to draw conclusions on how they shape an animal's behaviors and physical adaptations. Students investigate the biology and structure of the wildlife</p>
<p><b>Disciplinary Core Ideas</b> LS1: From molecules to organisms: Structures and processes LS3: Heredity: Inheritance and variation of traits LS4: Biological evolution: Unity and diversity</p>	
<p><b>Performance Expectations that Students Move Toward</b></p> <ol style="list-style-type: none"> <li>1. 3-5-LS3-2 Use evidence to support the explanation that traits can be influenced by the environment.</li> <li>2. 3-5-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.</li> <li>3. 3-5-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.</li> <li>4. MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.</li> </ol>	
<p><b>Common Core Speaking and Listening Standards for Grades 3-6</b></p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas</li> <li>3. 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.</li> </ol>	
<p><b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b></p>	
<p>The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).</p>	

## ADVENTURE CLASSES

### ARCHERY

**Class Description:** Students learn the basic skills and safety rules of using a bow and arrow. Students learn parts of the bow and arrow, how to nock an arrow, aim and fire, and safely retrieve arrows when finished. Shooting an arrow well requires honed fine motor skills. As they practice, they set and achieve goals as to how close they get to a bullseye.

**Vocabulary:** fletching, shaft, nock, recurve bow

Washington Physical Education Learning Standards	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Space; Speed, Direction, and Force; Strategies
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Receive and Provide Feedback, Work with Others, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

### CABIN TIME

**Class Description:** Utilize a class time as an opportunity to give your campers some down time to practice skits, reflect, bond and build culture with their cabin group. This class should be led by cabin leaders and counts as your school's class.

### CANOEING and WATERFRONT SAFETY

**Class Description:** Students learn the basic skills of canoeing and water safety. They learn how to put on a lifejacket, why it's important to always wear a lifejacket on the water, 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 sand dollars and crabs right over the sides of their canoes! Each canoe holds two to three campers, pushing students to communicate and problem solve to properly steer the boat. For a different twist on boating, ask about our "Big Canoes." This class is supervised by a Seymour Staff with a certification in CPR, First Aid, and Lifeguarding and/or Red Cross Small Craft Safety and Basic Water Rescue. **(PA-23)**

**Vocabulary:** paddle, blade, grip, PFD, bow, stern, keel

Washington Physical Education Learning Standards	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Balance, Individual-Performance Activity, Outdoor Pursuits
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Space; Speed, Direction, and Force; Strategies
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment

## CLIMBING WALL

**Class Description:** The Wall is limited to learning groups of **16** campers or less (sorry no more exceptions). Students have the opportunity to climb to the top of our 37-foot wall. Students are given a safety orientation, fit into a climbing harness, and “belayed” by a trained Camp Seymour staff member. Naturalists will focus on how to set incremental goals to be most successful as students step out of their comfort zone. It is a great way for students to build their self-esteem, as well as boosting each other as they encourage their classmates!

**Vocabulary:** safety, harness, belay, goal, challenge

Washington Physical Education Learning Standards	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Balance, Weight Transfer, Individual-Performance Activity, Outdoor Pursuits
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Space; Strategies
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Receive and Provide Feedback, Work with Others, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

## CO-OP I & II

**Class Description:** 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. Try Co-op II to have an extra class period to delve deeper into team building.

**Vocabulary:** teamwork, leader, verbal, nonverbal, communication, safety, positive, attitude

Common Core Speaking and Listening Standards for Grades 3-6	
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. 2. Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric. Presentation of Knowledge and Ideas 3. 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.	
Washington Physical Education Learning Standards	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Non-locomotor, Balance, Weight Transfer
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Space; Strategies
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Receive and Provide Feedback, Work with Others, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

## DISCOVERY HIKE

**Class Description:** 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 Forest."

**Key Vocabulary:** ecosystem, environment, evidence, habitat, observe, organism, producer, species, system

Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards	
1. The Natural and Built Environment: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	
Washington Physical Education Learning Standards	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Balance, Weight Transfer, Outdoor Pursuits
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

## DUAL ZIPLINE AND OUTBACK COOP\*

**Class Description:** Please allow two class blocks when selecting. We pair them together into two blocks, because both take place in the "Outback" with significant travel time on both ends. While in the forest, they will participate in approximately 75 minutes of Coop time (see Coop description above) and 75 minutes with their whole group at our Dual Zip line. Groups will not return to main camp between classes.

Our Dual Zip line, built in the spring of 2016, is comprised of two parallel, static zip lines (one line that runs from point A to point B). Students are given a safety orientation, fitted to their safety gear, and may ride the zip line next to a classmate. The simple, yet challenging goal of stepping off the zip line platform makes it a fantastic opportunity for groups to rally behind each individual, helping to shape a nurturing and supportive group culture.

\*Limit 20 person learning groups. Because this class is staff intensive, it is subject to staff availability and cannot be scheduled with Climbing Wall class. 250 pound weight limit. If you think you have a camper who might be close to that range, please contact us at camp, so we can work with you.

Washington Physical Education Learning Standards (for Dual Zip line)	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Non-locomotor, Weight Transfer, Individual-Performance Activity, Outdoor Pursuits
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Speed, Direction, and Force
Standard 4: Students will exhibit responsible personal and social behavior that respects self and others.	Personal Responsibility, Rules and Etiquette, Safety
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

## NATURE, DRAWING, AND POETRY

**Class Description:** This class allows students to have time to appreciate nature in their own ways. During a hike through Camp Seymour’s forest, 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. They are also encouraged to present their creative writing or art to their classmates. This class is a great way for campers to have a little down time to reflect during a fun-filled and active camp experience.

We’d like to note that Common Core Standards do not specifically outline writing standards for creative writing or poetry. Considering this, we’ve listed some standards below that we believe, through creative writing and presentation, students move toward in this class.

**Vocabulary:** describe, metaphor, observe, poem, simile, vivid verb

<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>
1. The Natural and Built Environment Students: engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place). 2.
<b>Common Core Speaking and Listening Standards for Grades 3-6</b>
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. 2. 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.
<b>Common Core Writing Standards 3rd-6th Grade</b>
1. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. 2. Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. 3. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. 4. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. 5. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

## ORIENTEERING

**Class Description:** 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.

**Key Vocabulary:** compass, direction, bearing, degree, pace

<b>Washington State K-12 Integrated Environmental and Sustainability Education Learning Standards</b>	
1. The Natural and Built Environment Students: engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments (sense of place).	
<b>Washington Physical Education Learning Standards</b>	
Standard 1: Students will demonstrate competency in a variety of motor skills and movement patterns	Locomotor, Individual-Performance Activity, Outdoor Pursuits
Standard 2: Students will apply knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Space; Speed, Direction, and Force; Strategies
Standard 5: Students will recognize the value of physical activity for health, enjoyment, challenge, self-expression, and social interaction.	Challenge, Self-Expression and Enjoyment, Social Interaction

