Environmental Education

**Beach Walk** (Highly suggested for spring schools)
Location: The Beach

**Possible Learning Outcomes:**
- Students observe and interact with the marine inter-tidal ecosystem on a short marine hike
- Students relate the beach formation with the tidal and geological cycles
- Students will discover and respond to the human impact and use of beaches and rocky shores

**Possible Activities:**
By hiking on our beautiful beach, students observe and examine the shore community (including tidal pools, invertebrates, marine algae, and coastal wildlife) and show understanding of concepts related to tides and tidal zones. At the different coastal habitats, students explore the physical features of the beach and organisms living there. In this course, students are active participants in their own learning: they question, explore, and identify their living surroundings.

**Main Vocabulary and Concepts:**
- Intertidal Zones
- Tides and Currents
- Phyla and Species of Marine Invertebrates

**5th Grade Common Core Learning Targets:**
- 5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
- 5SL 4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- 5SL 6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
- 5L 1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- 5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

**6th Grade Common Core Learning Targets:**
- 6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
6 NS8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
6 SP4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
6 SP5 Summarize numerical data sets in relation to their context.

**Marine Invertebrates**
Location: The Marine Center and the Beach

**Possible Learning Outcomes:**
Students discover the characteristics of tidal zones and the animals living in them
Students identify the adaptations of marine invertebrates common to the Puget Sound
Students understand and draw connections among organisms in a marine food web and discuss role of plankton
Students discuss the effects of human impact and preservation of both local and global marine habitat

**Possible Activities:**
Students meet creatures from the saltwater ecosystem. Through hands-on activities, students explore how marine invertebrates have adapted to different habitats and why these critters are suited to their habitats. Depending on the tides, students will identify and get to know creatures on the beach or in the Marine Center’s touch tanks. Through interactive lessons, students will uncover the interconnectedness within the marine community.

**Main Vocabulary And Concepts:**
Marine Invertebrate
Habitat (sandy, rocky, muddy, and sub tidal)
Niche
Adaptations (locomotion, protection, and nutrition)
5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5SL 4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5SL 6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5L 1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

Squid Dissection
Location: Squid Lab (Morris Room)

Possible Learning Outcomes:
Students learn the internal and external anatomy of a squid.
Explore some of the Phyla of Marine Invertebrates present in the Puget Sound.
Discover, recognize and discuss squid adaptations that make the animal suited for survival in an aquatic environment.

Possible Activities:
Students will learn various steps of hygienic and safe dissection by observing an instructor dissecting a large squid. Students will then have a chance to dissect a market squid in pairs and will make and discuss observations about the external and intern anatomy of a squid. A
discussion about various adaptations and ethics of dissection will be lead.

**Main Vocabulary And Concepts:**
Adaptations  
Basic Anatomy Terminology  
Taxonomy Key Words

**5th Grade Common Core Learning Targets:**
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.  
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.  
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.  
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.  
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

**6th Grade Common Core Learning Targets:**
6 RST 3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.  
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.  
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.  
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.  
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

**Pacific Salmon**  
Location: The Lagoon, the Marine Center, or the Beach

**Possible Learning Outcomes:**
Students describe the life cycle of the Pacific salmon (egg, alevin, fry, smolt, and, adult)  
Students are introduced to the unique physical adaptations salmon make between fresh and salt water environment
Students discover the importance of salmon within the food chain and be able to describe the predator and prey relations involving salmon. Students discuss human impact and its effect on the spawning grounds and home streams of Pacific salmon.

**Possible Activities:**
Students have the opportunity to learn about salmon development at different stages of their lives. Through active role-playing and lessons, students experience the life cycle of the salmon, learn of salmons’ physical adaptations, and understand salmons’ role in the food chain. Students can become more involved and informed in the lives and experiences of salmon.

**Main Vocabulary And Concepts:**
- Life Cycle
- Physical Adaptations
- Food Chain

**5th Grade Common Core Learning Targets:**
- 5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
- 5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
- 5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
- 5 L 1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- 5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

**6th Grade Common Core Learning Targets:**
- 6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
- 6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
- 6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
- 6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
**Birds of the Pacific Northwest**

Location: The Forest and the Lagoon

**Possible Learning Outcomes:**
Students explore a healthy bird habitat
Students identify different species of birds found during exploration
Students discuss bird adaptations and behaviors
Students investigate predator/prey relationships

**Possible Activities:**
Students will examine characteristics of a healthy bird habitat at the lagoon and the forest and will observe birds in their natural habitat to discuss their behavior. Students will discuss the interdependence of birds and other species in the ecosystems they observe. They will explore adaptations through games, observation, and discussion. Students may also have the opportunity to investigate predator prey relationships through a dissection of an owl pellet.

**Main Vocabulary And Concepts:**
Diversity
Interdependence
Habitat health
Adaptations

**5th Grade Common Core Learning Targets:**
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5SL 4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5SL 6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5L 1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.
4-5 LS1B Plants and animals have different structures and behaviors that serve different functions.
4-5 LS1C Certain structures and behaviors enable plants and animals to respond to changes in their environment.
4-5 LS2A An ecosystem includes all of the populations of living organisms and nonliving physical factors in a given area. Living organisms depend on one another and the nonliving physical factors in their ecosystem to help them survive.
6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Forest Ecology
Location: Forested Areas

Possible Learning Outcomes:
Students learn some basic botanical identifications and plant anatomy.
Students are exposed to the cycle of the forest succession as a process of a healthy forest.
Students analyze how species function as individuals and as part of a larger system in the forest community.

Possible Activities:
Students explore Colman’s forests and woodland ecosystems to learn about different forest communities. Students will study examples of competition and adaptation to discuss cycles of forest succession. Along with seeing the forest as a whole, interdependent, ever-changing community, students play games and participate in activities to learn about the concepts of food chains, tree functions, and animal adaptations.

Main Vocabulary And Concepts:
Biodiversity
Forest Succession
Human Impact and Disturbances

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

6th Grade Common Core Learning Targets:
6 RST 3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

Plant Exploration
Location: Forested Areas

Possible Learning Outcomes:
Students learn some basic botanical identification.
Students explore historical and common uses of individual species.
Students sharpen sensory awareness of forest community.

Possible Activities:
Students explore Colman’s forests, exploring both native and non-native species. Students have the opportunity to be the expert through the Each-One-Teach-One curriculum. Students participate in sensory activities, allowing them the opportunity to experience the forest individually through imaginative instructions. Students will study examples of competition and adaptation to discuss cycles of forest succession.

Main Vocabulary And Concepts:
Native and Non-native species
Plant Identification
Sensory awareness
5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Micro-Forest
Location: Forest

Possible Learning Outcomes:
Understand the importance of decomposition in the ecological processes of the forest.
Explore the roles played by other inhabitants of the forest floor such as insects, slugs, amphibians, and small mammals.
Identify and differentiate between fungi, lichen, and moss.

Possible Activities:
Students may spend time exploring the forest floor and exploring found insects, slugs, amphibian, and fungi under magnifying glasses. Student may discuss the process of soil formation. Students may play a tag game to illustrate the roles of decomposers, producers, and consumers. Students may examine various aspects of the soil and undergrowth by building mini-national parks then “guide” other students through their park explaining the feature, habitats, and niches that exist there.
Main Vocabulary And Concepts:
Decomposition
Decomposer, Consumer, Producer
Habitat, Community, Niche, Ecosystem
Soil Formation

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.
4-5 ES2D Soils are formed by weathering and erosion, decay of plant matter, transport by rain through streams and rivers, and deposition of sediments in valleys, riverbeds, and lakes.
4-5 ES2E Soils are often found in layers, with each layer having a different chemical composition and different physical properties.
4-5 LS2A An ecosystem includes all of the populations of living organisms and nonliving physical factors in a given area. Living organisms depend on one another and the nonliving physical factors in their ecosystem to help them survive.
4-5 LS2B Plants make their own food using energy from the sun. Animals get food energy by eating plants and/or other animals that eat plants. Plants make it possible for animals to use the energy of sunlight.
4-5 LS2C Plants and animals are related in food webs with producers (plants that make their own food), consumers (animals that eat producers and/or other animals), and decomposers (primarily bacteria and fungi) that break down wastes and dead organisms, and return nutrients to the soil.
4-5 LS2F Ecosystems can change slowly or rapidly. Big changes over a short period of time can have a major impact on the ecosystem and the populations of plants and animals living there.

6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate
volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

**Circle of Life**
**Location: Forested Areas**

**Possible Learning Outcomes:**
- Students discover how food chains and food pyramids are constructed
- Students experience a predator-prey relationship and animal feeding patterns and strategies through role playing an herbivore, omnivore, or carnivore
- Students understand human impact on animal habitats in terms of pesticide use and appropriation of territory
- Students understand the key concepts of habitat

**Possible Activities:**
“Life and Death in the Forest” is an advanced hide and seek-style game that provides a fun venue for examining population dynamics. Students role-play herbivores, omnivores, and carnivores foraging for food and water to better understand predator-prey interactions. After the game, there is a debriefing session to recognize and evaluate students’ animal-like strategies, their adaptations, and human impact in the food chain and forest.

**Main Vocabulary And Concepts:**
- Interdependence
- Adaptations
- Food Web
- Habitat

**5th Grade Common Core Learning Targets:**
5 G2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.
6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
6 NS8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
6 SP4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
6 SP5 Summarize numerical data sets in relation to their context.

Geology
Location: Beach and Forest

Possible Learning Outcomes:
To identify three main categories of rock: Sedimentary, Metamorphic, and Igneous
Learn about plate tectonics and the formation of Mt. Rainier and the Cascade and Olympic mountain ranges.
To understand the concept of geologic time.
Talk about different types and formation of shorelines.
Discuss ways in which humans impact the local and global geology.

Possible Activities:
Students may spend time on the beach observing various types of rocks and geological formations visible from camp (the Olympic Mountains!). Students may do an activity with a geologic time line included important historic events. Students may act out various geologic concepts such as the layers of the earth or plate tectonics.

Main Vocabulary And Concepts:
Geologic Time Line
Igneous, Sedimentary, and Metamorphic Rocks
Layers of the Earth (Inner and outer core, mantle, crust, atmosphere)
Plate Tectonics
Cascade and Olympic Mountains

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
5 RI4 Determine the meaning of general academic and domain-specific words and phrase in a text relevant to a grade 5 topic or subject area.

6th Grade Common Core Learning Targets:
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 WHST7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
Outdoor Education

Orienteering
Forest, and Map and Compass Sites

Possible Learning Outcomes:
Students identify the essential elements of a map and a compass
Students complete an orienteering courses at Camp Colman
Students use a compass to set bearings, travel distances, and find markers

Possible Activities:
Students learn to identify the parts of a compass. Students use the compass to move to different locations. To familiarize students with these materials, they will use compasses in playing games and hands-on activities.

Main Vocabulary And Concepts:
Cardinal directions
Degrees
Dial
Direction of travel arrow
Magnetic needle
Orienting arrow

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST 3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 RST4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 6–8 texts and topics.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
6 NS5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values; use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.
6 SP5 Summarize numerical data sets in relation to their context.

Canoeing
Location: The Lagoon
*Please select an alternative class if selecting canoeing. This is a weather dependent class.

Possible Learning Outcomes:
Students learn about water, paddling, and safety and technical skills
Students connect their marine ecosystem knowledge to canoeing
Students practice the importance of communication and team-oriented tasks

Possible Activities:
After learning about canoeing and water safety skills, instructors will give students a chance to independently paddle around the lagoon to explore with their canoe group while instructors lifeguard. Along the way, students ask questions about what they see on and around the water; instructors will answer these questions and pose others to students. Through this activity, students practice pod traveling and how they, as a group, need to be safe and are interdependent. Please note that this class is weather dependent and may need to be called off for safety reasons if there is inclement weather. If the weather appears to be uncooperative, instructors will move to the alternative class that the teachers have previously selected.

Main Vocabulary And Concepts:
Parts of the Paddle
Technical Skills
Safe Boating

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
Outdoor Wilderness Living Skills
Location: Beach and Forest

Possible Learning Outcomes:
Students learn the 10 essential things to bring for wilderness travel
Students learn basic outdoor skills such as fire building, setting up shelters, and wild edibles etc.
Students explore ways to reduce their impact on the land while hiking and camping

Possible Activities:
Students play games and participate in practicing outdoor living skills. This class helps to inform students about what materials they need in order to be safe while camping outdoors and how to experience the outdoors with minimum impact on their environment. Students may work in teams to build shelters and fires. If indicated beforehand, this class could be combined with map and compass skills.

Main Vocabulary And Concepts:
Ten Essentials
Shelter/Fire-Building
Leave No Trace
Human Impact

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

6th Grade Common Core Learning Targets:
6 RST 3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
Challenge Education

Challenge I (Teambuilding/Initiatives)
Location: Field Initiatives

Possible Learning Outcomes:
Students will develop group cooperation and group communication skills by facing challenging activities
Students will practice constructive group problem solving skills
Students will debrief these activities

Possible Activities:
In these classes, students work together to solve physical and mental problems. The group starts with simple problems requiring basic communication and problem solving skills. Activities range from non-prop and prop initiatives (use of physical items to facilitate the activity) to group efforts on a low element initiative course. Progression through the elements is dependent on the group’s ability to work together safely.

The program director will be happy to work with you on this to define goals for the groups and the instructors are trained to help the group achieve those goals by using sequenced activities and lesson plans specific to the groups needs. The Colman staff is ultimately responsible for the logical progression of activities the students will encounter and may not attempt some elements if the team is not physically, emotionally or socially ready for it. There are several factors that determine a group’s readiness to progress to more challenging activities and the instructors will attempt to meet the groups’ needs while also making sure that all students are safe at all times.

Main Vocabulary And Concepts:
Listening
Problem Solving
Cooperation
Challenge by Choice

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Challenge II (Teambuilding/Initiatives)
Prerequisite: Challenge I
Location: Low ropes

Possible Learning Outcomes:
Students will continue to develop group cooperation and group communication skills by facing challenging activities on low ropes elements
Students will practice constructive group problem solving skills
Students will debrief these activities

Possible Activities:
In these classes, students work together to solve physical and mental problems. Groups will build upon skills gained throughout Challenge I. Groups will move to more difficult problems requiring trust and strong reliance on each other. The course is composed of obstacles that require the groups to cooperatively problem solve and devise safe and effective solutions. Progression through the elements is dependent on the group’s ability to work together safely.
The program director will be happy to work with you on this to define goals for the groups and the instructors are trained to help the group achieve those goals by using sequenced activities and lesson plans specific to the group’s needs. The Colman staff is ultimately responsible for the logical progression of activities the students will encounter and may not attempt some elements if the team is not physically, emotionally or socially ready for it. There are several factors that determine a group’s readiness to progress to more challenging activities and the instructors will attempt to meet the group’s needs while also making sure that all students are safe at all times.

Main Vocabulary And Concepts:
Listening
Problem Solving
Cooperation
Challenge by Choice

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-lead) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Climbing Tower
Capacity: 16 students maximum
Location: Climbing Tower

Possible Learning Outcomes:
Students are exposed to a challenging experience where they will gain insight into their abilities and self-perception
Students understand that all individuals have different challenges and goals
Students practice supporting one another by helping each other reach goals and providing encouragement in their endeavors regardless of the outcome.
Students relate their skills and process use in the climbing wall to other areas of their lives

Possible Activities:
Students climb an outdoor climbing tower consisting of various hand and foot holds. This activity, while very safe, provides a sense of perceived risk and generates a great feeling of accomplishment for those who choose to accept the challenge. The climbing wall, for some students, is a physical challenge. The climber is in a harness and belayed by a team of participants or an instructor. Each participant requires steady support from the rest of the group. Afterwards, staff facilitates a debriefing discussion to help students process their experience and express their feelings.

Main Vocabulary And Concepts:
Challenge by Choice
Helmet and Harness
Belaying
5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Catwalk Log
Capacity: 16 students maximum
Location: The High Ropes Course
*This class can take up to 2 ½ hours to complete. Please consult with OEE Director before electing this class for students. Please note the suggested minimum age is 7th grade.

Possible Learning Outcomes:
Students are exposed to a challenging experience where they will gain insight into their abilities and self-perception
Students understand that all individuals have different challenges and goals
Students practice supporting one another by helping each other reach their goals and providing encouragement in their endeavors regardless of the outcome.
Students relate their skills and process use in the climbing wall to other areas of their lives

Possible Activities:
This activity, while very safe, provides a sense of perceived risk and generates a great feeling of accomplishment for those who choose to accept the challenge. Students climb a tree to a height of 35 feet where they have the opportunity to walk across a 25 foot log suspended between two trees. Students set their own goals can choose to climb partially up the tree, across the log, go blindfolded, or even backwards. Students are in harness and belayed by two teams. Each participant requires steady support from the rest of the group. Afterwards, staff facilitates a debriefing discussion to help students process their experience and express their feelings.
Main Vocabulary And Concepts:
Challenge by Choice
Helmet and Harness
Belaying

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

Vertical Playpen
Capacity: 16 students maximum (grades 7-12)
Location: High Ropes Course
*Please note the suggested minimum age is 7th grade.

Possible Learning Outcomes:
Students can work together to practice supporting one another by helping each other reach their goals and providing encouragement in their endeavors regardless of the outcome
Students can be exposed to a challenging experience where they can gain insight into their abilities and self-perception
Students can understand that all individuals have different challenges and goals
Students can relate their skills and process use in the high ropes course to other areas of their lives

Possible Activities:
All participants use safety equipment: helmets, belay lines, harnesses, and other climbing safety gear. This activity, while very safe, provides a sense of perceived risk for those who choose to
take on this challenge. Each participant requires steady support from the rest of the group. Afterwards, staff facilitates a debriefing discussion to help students process their experience and express their feelings. At least two adult chaperones are required for this activity.
A team of three students will collaborate as a team to climb a vertical jungle gym, which is hung in between two trees. While one team is climbing, staff supervises the other students as they work together in teams to belay their classmates. This activity pinpoints and stresses the necessity of cooperation, communication, and problem solving skills to accomplish a task.

Main Vocabulary And Concepts:
Challenge by Choice
Helmet, Harness, and Belaying
Group Work

5th Grade Common Core Learning Targets:
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

6th Grade Common Core Learning Targets:
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
6 SL4 Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

The Beast
Capacity: No student maximum
Location: Campfire Pit or Morris Room

Possible Learning Outcomes:
Students will realize the importance of clear, concise communication
Students will learn to use descriptive language
Students will practice having patience while communicating
Students will work together in teams
**Possible Activities:**
This communication workshop challenges students to explore different methods of conveying and receiving information. Participants are split into smaller groups and assigned differing roles that limit and focus their ability to communicate with each other. In one activity, they must construct an exact replica of a hidden Lego “Beast” that only one team member can see. In another, students are using their visual and listening skills to recreate an intricate drawing. This is an active, inclusive, hands-on class that deals with relationships between people and adapting to help others communicate. This is a class that can enhance group communication and team skills, providing an opportunity for students to examine communication barriers, and to create an avenue for developing solutions.

**Main Vocabulary And Concepts:**
Listening
Speaking

**5th Grade Common Core Learning Targets:**
5 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.
5 SL4 Report on a topic or text or present an opinion sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5 SL6 Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation.
5 L1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

**6th Grade Common Core Learning Targets:**
6 RST3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.
6 SL1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
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