

SHADY CREEK OUTDOOR SCHOOL AND EVENT CENTER



Billing and Reservations:

970 Klamath Lane, Yuba City, CA 95993
(530) 822-2949 - (530) 822-3039 Fax

Camp Address:

18601 Pathfinder Way, Nevada City, CA 95959
(530) 292-3436 – (530) 292-3538 Fax



Shannon Cueva, Director

Shady Creek Classes

There are currently 10 classes offered at Shady Creek Outdoor School. The core classes are survival, communities, creek, and birds. If your school is a *FitQuest* school, garden class is required. Hikes not listed are the discovery hike, night hike, and closing hike. These are all susceptible to change based on a number of factors.

5 day week- Choose six classes

4 day week- Choose five classes

★ Objectives and correlated standards can be seen on the pages indicated in **bold** at the end of the description.

Survival

The survival class is designed to give students the opportunity to engineer a survival shelter based on criteria that the students establish. Over this two and a half hour class students will identify design constraints, and work together to improve their design to ensure survival under the wettest conditions. Students will learn about S.T.O.P. and F.I.B.S. as well as the most crucial aspects of surviving in the wild. **Page 3**

Communities

Communities is a team building class where students learn how they are individually important to your class community. While on communities class, students will have the opportunity to conquer a variety of challenges including Shady Creek's low-ropes course. Over the course of the lesson, students often make profound discoveries about themselves, and what it means to be a member of a community. **Page 3**

Birds

Utilizing argument from evidence is crucial to scientific practice. In birds class, students will collect evidence from bird observations to identify as many bird species as possible. Students explore bird adaptations in context and apply their knowledge to learning about how birds are nature's storytellers. Finally, students will visit with Shady Creek's injured raptors where they will discover how both knowledge and caring are necessary in order to make a positive difference. **Page 4**

Creek Ecology

In creek ecology students explore interactions between the living and nonliving components of the creek ecosystem. Students make predictions based on population models that they create. In the creek, students capture macroinvertebrates and utilize observation to explore animal structures in relation to their specific environment. Finally, the class makes conclusions about creek health based on the macroinvertebrates that they collect. **Page 4**

Garden

Garden Class is the most delicious class offered at Shady Creek Outdoor School. During this class, students will explore the garden using all of their senses. They will delve into the concepts of energy flow and matter cycling through exploring garden food chains. Students will learn guidelines for healthy food choices and enjoy fresh food from Shady Creek Outdoor School. By the end of class, students will understand why gardens have ingredients for life. **Page 5**

American Indian Studies

Over two and a half hours, students will delve into the lives of traditional American Indian cultures. The class will begin in Shady Creek Outdoor School's tipi where students will examine how different tribes' dwellings related to their environment. From there, students will get a chance to experience tidbits of Nisenan culture through fire making, acorn activities, tasting native plants, music, and Nisenan games. At the end of class, students will exercise their creative writing skills to write a Native American legend. By the end of class, students will discover how American Indians' lives were shaped by their environment. **Page 5**

Forest Ecology

During Forest Ecology, students will walk through three different plant communities. Students will begin by exploring the trees at Shady Creek through their senses. We will then hike through three distinct plant communities, investigating why each is different, and why. Students end by becoming the teachers and acting as the expert on one portion of the forest. This is Shady Creek's longest hike. It can be up to three miles in length, but can easily be amended to be shorter. By the end of this lesson students will view a larger ecosystem as a conglomerate of habitats, each with its own unique attributes. **Page 6**

Earth Processes

By the end of Earth Processes class, students will be able to explain water's role in shaping the Earth. Students will model the movement of convection currents and the Earth's plates. They will develop models of a watershed and make predictions about how water will affect the landscape. Finally, students will go rock hounding, where they find their own rock and use evidence to classify it two one of three rock types. **Page 6**

Nature Awareness (formerly Gorking)

Nature Awareness focuses on students using their senses to gain a deeper appreciation for nature. During this hike, students will engage in different sensory activities that include a barefoot walk, rock stacking, and sound maps. Students will end with a guided blind walk through our mixed woodland. This experience-based class leads to profound realizations and deep reflection **Page 7**

Nature Investigation and Exploration (NIE)

During our newest class at Shady Creek, students will start taking huge adventures on a small scale. Kids will discover natural mysteries and use science skills to conduct investigations. Scientific practices will be accentuated and utilized throughout the hike. By the end of class, students will have investigated the case of the disappearing log, and created their own field guide to a natural wonder. **Page 7**

Survival

Objective- By the end of class, students will be able to be able to design a survival shelter based on the available materials.

Next Generation Science Standards

Performance Expectations

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.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none">- Constructing Explanations and Designing Solutions- Engaging in Argument from Evidence- Developing and Using Models- Obtaining, Evaluating, and Communicating Information	ETS1.A: Defining and Delimiting Engineering Problems ETS1.B: Developing Possible Solutions ETS1.C: Optimizing the Design Solution	Cause and Effect

California Common Core State Standards

ELA/Literacy

RST.6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). (MS-ETS1-3)

RST.6-8.9 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic. (MS-ETS1-2),(MS-ETS1-3)

WHST.6-8.7 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. (MS-ETS1-2)

Communities

Objective- By the end of class, students will be able to be able to explain why each member of a community is important to its success.

California Common Core State Standards

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Birds

Objective- By the end of class, students will be able to create scientific arguments based on evidence.

Next Generation Science Standards

Performance Expectations

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.
MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none"> - Constructing Explanations and Designing Solutions - Engaging in Argument from Evidence - Obtaining, Evaluating, and Communicating Information 	<p>LS1.A: Structure and Function LS2.C: Ecosystem Dynamics, Functioning, and Resilience</p>	<p>Cause and Effect Stability and Change</p>

California Common Core State Standards

ELA/Literacy

RST.6-8.1 Cite specific textual evidence to support analysis of science and technical texts. (MS-LS2-1),(MS-LS2-2),(MS-LS2-4)
WHST.6-8.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. (MS-LS2-2),(MS-LS2-4)
SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)
SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Creek Ecology

Objective- By the end of class, students will be able to make predictions about populations based on patterns.

Next Generation Science Standards

Performance Expectations

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.
MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.
MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none"> - Analyzing and Interpreting Data - Constructing Explanations and Designing Solutions - Engaging in Argument from Evidence - Developing and Using Models - Obtaining, Evaluating, and Communicating Information 	<p>LS2.A: Interdependent Relationships in Ecosystems LS2.B: Cycle of Matter and Energy Transfer in Ecosystems LS2.C: Ecosystem Dynamics, Functioning, and Resilience LS4.D: Biodiversity and Humans ETS1.B: Developing Possible Solutions</p>	<p>Patterns Cause and Effect Energy and Matter Stability and Change</p>

California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)
SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details;

use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Mathematics

MP.4 Model with mathematics. (MS-LS2-5)

6.EE.C.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. (MS-LS2-3)

6.SP.B.5 Summarize numerical data sets in relation to their context. (MS-LS2-2)

Garden

Objective- By the end of class, students will be able to design their own garden showing components necessary to sustain life.

Next Generation Science Standards

Performance Expectations
5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Developing and Using Models Engaging in Argument from Evidence	LS2.B: Cycle of Matter and Energy Transfer in Ecosystems	Energy and Matter Cause and Effect Systems and Systems Models

California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details;

use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

American Indian Studies

Objective- By the end of class, students will be able to explain in what ways American Indians were closely linked to the environment.

California Common Core State Standards

ELA/Literacy

W.5.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

SL.5.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

L.5.2. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacherled) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.

W.6.3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

SL.6.1. 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.

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details;

use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

L.6.1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.6.2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

California Content Standards, History-Social Studies

4.1-5. Use maps, charts, and pictures to describe how communities in California vary in land use, vegetation, wildlife, climate, population density, architecture, services, and transportation.

4.2-1. Discuss the major nations of California Indians, including their geographic distribution, economic activities, legends, and religious beliefs; and describe how they depended on, adapted to, and modified the physical environment by cultivation of land and use of sea resources.

4.2-5. Describe the daily lives of the people, native and nonnative, who occupied the presidios, missions, ranchos, and pueblos.

5.1. Students describe the major pre-Columbian settlements, including the cliff dwellers and pueblo people of the desert Southwest, the American Indians of the Pacific Northwest, the nomadic nations of the Great Plains, and the woodland peoples east of the Mississippi River.

Forest Ecology

Objective- By the end of this class, students will be able to explain why plant communities differ based on available resources.

Next Generation Science Standards

Performance Expectations
<p>MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.</p> <p>MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.</p> <p>MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.</p>

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none"> - Constructing Explanations and Designing Solutions - Engaging in Argument from Evidence - Obtaining, Evaluating, and Communicating Information 	<p>LS1.B: Growth and Development of Organisms</p> <p>LS2.A: Interdependent Relationships in Ecosystems</p>	<p>Cause and Effect</p> <p>Stability and Change</p>

California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Earth Processes

Objective-By the end of class, students will be able to explain water's role in shaping Shady Creek.

Next Generation Science Standards

Performance Expectations
<p>4-ESS2-1. Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.</p> <p>5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</p> <p>MS-ESS2-1. Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.</p> <p>MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.</p>

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<ul style="list-style-type: none"> - Analyzing and Interpreting Data - Constructing Explanations and Designing Solutions - Engaging in Argument from Evidence - Developing and Using Models 	<p>ESS2.C: The Roles of Water in Earth's Surface Processes</p> <p>Nearly all of Earth's available water is in the ocean. Most fresh water is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. (5-ESS2-2)</p> <p>ESS2.C: The Roles of Water in Earth's Surface Processes</p> <p>Water continually cycles among land, ocean, and atmosphere via transpiration, evaporation, condensation and crystallization, and precipitation, as well as downhill flows on land. (MS-ESS2-4)</p>	<p>Patterns</p> <p>Cause and Effect</p> <p>Systems and Systems Models</p>

- Obtaining, Evaluating, and Communicating Information		
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California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Nature Awareness

Objective- By the end of class, students will know how to gain a deeper connection to nature through using their senses.

California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Nature Investigation and Exploration

Objective- By the end of class, students will be able to use science practices to create explanations about natural phenomena.

Next Generation Science Standards

Performance Expectations

MS-LS2-2. Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
- Constructing Explanations - Engaging in Argument from Evidence - Obtaining, Evaluating, and Communicating Information	LS2.A: Interdependent Relationships in Ecosystems LS2.B: Cycle of Matter and Energy Transfer in Ecosystems LS2.C: Ecosystem Dynamics, Functioning, and Resilience LS4.D: Biodiversity and Humans ETS1.B: Developing Possible Solutions	Patterns Cause and Effect Energy and Matter

California Common Core State Standards

ELA/Literacy

SL.6.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly. (MS-LS2-2)

SL.6.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation. (MS-LS2-2)

Name _____

School _____

Email _____

Class Selection:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Notes: