

## Curriculum Abstracts

The following abstracts include, in this order, the name of the class, the objectives and a brief paragraph outlining the basics of the class and skills that can be developed.

### NATURAL SCIENCE

#### BIRDS OF A FEATHER

1 hour

Grades 3-8

Students will:

- List the six animal classes.
- Sort Animals into their classes.
- Define Adaptation.
- List bird characteristics.
- List adaptations that birds have.

Through the use of activities and discussion students will learn the characteristics and adaptations of birds. Students will view and identify birds throughout the camp setting. Along with role-playing as birds during different activities designed to teach about adaptation. This class is compatible with any of natural science classes.

#### BUGGING OUT

1 hour

Grades 3-8

Students will:

- Learn the difference between a true bug and an insect
- Discuss the 3 parts of an insect (head, thorax, abdomen)
- Discover adaptations of different insects, while on a 'bug hunt'
- Utilize field guides to attempt to identify insects

The students will understand the characteristics that make up an insect. They will go out on a 'bug hunt' and discover the wide variety of insects that exist. They will study the insects they find and discuss their adaptations.

#### DEER SURVIVAL

1 hour

Grades 3-8

Students will:

- Discuss the basic needs of survival: food, water, shelter, space
- Discuss the rise in population of Deer and their predators
- Act as a deer would and try to survive

In this class, the students get to play the role of a deer. They will need the basic survival supplies in order to survive (food, water, shelter). Predators will help to control the deer population. Can the deer survive?

#### ECOSYSTEMS

1 hour

Grades 4-8

Students will:

- Identify and define producer, primary consumer, secondary consumer, and decomposer as roles of organisms in the movement of energy through an ecosystem
- Trace the transmission of energy in an ecosystem in terms of a food chain
- Identify organisms as part of a food chain or web and demonstrate their feeding relationships within the web
- Distinguish between the roles of predator and prey in the energy movement in an ecosystem
- Describe how all organisms in an ecosystem acquire energy directly or indirectly from sunlight
- Explain the positive and negative impacts of human activity on the food webs of the earth

Ecological concepts such as food webs, predator and prey, communities and ecosystems are explored in this interactive class. Students may role-play a variety of organisms involved in a food chain. Eco-connections can strengthen students' abilities to make abstractions and generalizations from particular situations, and allow them to explore inter-connective patterns in nature. It is compatible with any of our natural science classes.

**FIREQUEST**

1 hour

Grades 4-8

Students will:

- Identify and demonstrate proper fire safety
- Identify the three needs of fire: oxygen, fuel and heat source
- Identify the three types of fuel: tinder, kindling and logs
- Be introduced to several methods of creating a heat source
- Build and light a fire using one or more fire starting techniques

This class consists of an introduction that covers methods of starting fires, fire building procedures, fire safety, and proper ways to extinguish a fire. Students, then, build their own fires. This class aims to provide both teambuilding skills and recreation

**FUNKY FUNGI**

1 hour

Grades 3-8

Students will:

- Learn the importance of fungus as a decomposer
- Discuss the different types of fungus we could find in Northern California
- Use field guides to assist in identification of local fungi growing on camp

Students will learn the importance of decomposers to our ecosystem. They will discuss the many different types and characteristics of fungi. They will discuss edible versus poisonous types of fungi. Students will travel around camp discussing the fungi that exist in Northern California.

**THE HIKE**

1 or 2 hours

Grades 5-8

Students will:

- Participate in an interpretive hike facilitated by a staff member
- Practice observation skills in a natural setting
- Practice simple plant and wildlife identification skills
- Visit points of historical/traditional interest
- Classify and identify certain wild plants on camp that are edible based upon observable characteristics

This nature hike/recreational activity is a fascinating hike stressing local ecology, animal signs and habitats, plants and trees, and environmental concerns along the way. This class aims to strengthen students' observation skills while participating in recreational activities.

**MAMMALIAN MAYHEM**

1 hour

Grades 3-8

Students will:

- List the six animal classes
- Sort animals into their families and orders.
- Define Adaptation.
- List some characteristics of mammals.
- Be able to name several mammals, its adaptation, and how its adaptation helps it survive

Through the use of activities and discussion students will learn the characteristics and adaptations of mammals. Students will view furs and/or skulls of California mammals. Students will research and discuss mammal characteristics.

**MEAN GREEN OXYGEN MACHINES**

1 hour

Grade 3-8

Students will:

- Explain how humans use and benefit from plant materials
- Explain the roles of trees in the energy movement in an ecosystem
- Describe physical characteristics and basic functions of plants and trees
- Classify and identify some of the camps plants and trees using a dichotomous key and field guides
- Safely identify plants that are edible using field guides and observable characteristics
- Discuss other alternative uses of plants such as dyes and medicines

This class sharpens student's observation skills and teaches how to use guides and keys. Students also learn what plants and trees are native to the area and what has been introduced, as well as historical uses for some plants and trees. The edible plant section is only offered when these plants are available.

**MICROSCOPIC PONDERINGS**

1 hour

Grades 3-8

Students will:

- Collect, observe, and classify aquatic organisms from a lake or creek
- Identify aquatic organisms based upon physical and/or behavioral characteristics
- Discuss the roles and needs of observed organisms in an aquatic ecosystem
- Use and care for a basic microscope

Students collect specimens from Lake George or Salmon Creek. They are then able to use microscopes and field guides to classify and identify various organisms. This class is highly experiential and can strengthen students' observation and classification skills.

**POWER OF WATER**

1 hour

Grades 3-8

Students will:

- Define weathering, erosion, deposition, moraine, suspended sediments, soluble sediments, till, valley glacier, and continental glacier
- Discuss natural, geological changes in the earth's surface caused by the force of water
- Demonstrate and compare patterns on the earth's landscape caused by rivers and glaciers

In this class, students have the opportunity to learn about glaciers and rivers and how they have shaped our planet through interactive hands-on activities. Students may play Mountain Peak Tag, role-play rivers and glaciers in their basic movement patterns or create a "real" river to determine the specific pattern of erosion and deposition! This class focuses on geological processes as opposed to aquatic processes. It aims to strengthen students' abilities to recognize patterns and make generalizations about natural phenomena.

**RESERVIOR RESEARCHERS!**

1 hour

Grades 6-8

Students will:

- Demonstrate their understanding of the water cycle.
- Define watershed, understand how a watershed works, and how human activity can affect its health.
- Predict and investigate the water quality of CYO's Lake George.
- Measure the water quality indicators of Lake George, specifically temperature, pH, turbidity, and dissolved oxygen.
- Determine what aquatic life can be found in Lake George based on their test results.

In this class, students act as scientific field researchers! Students will conduct various water quality tests on CYO's Lake George. Students will work in small, cooperative groups to perform the tests. Prior to their investigation, students will study the water cycle, watersheds, and how human activities can affect their health.

**TRACKING 101**

1 hour

Grades 3-8

Students will:

- Learn several tracks of animals that are found in Northern California
- Discuss the different ways that predators track their prey or a mate

The students will learn why animals track other animals and how they track other animals. They will use tracking skills and their senses to track each other. Students will discuss how to tell what animal creates what track.

## **CULTURAL HISTORY**

### **HOME ON THE RANGE!**

1 hour

Grades 3-8

Students will:

- Describe the customs, lifestyles and traditions of pioneers in the early US history, specifically in 19<sup>th</sup> century California
- Learn about pioneer cooking
- Create their own pioneer food, such as butter, biscuits, and baked apples
- Learn of the difficulties and struggles pioneers had with finding and cooking food that was necessary for survival

In this class, students will experience cooking as the pioneers once did in early America. They will have an opportunity to cook over a fire using a Dutch oven. They will discuss and possibly see the difficulty of cooking in this fashion. This class gives the students hands on experience as a pioneer.

### **CALIFORNIA COUNTRY**

2 hours

Grades 6-8

\*\*\*THIS CLASS IS CURRNETLY UNDER CONSTRUCTION!

Students will:

- Develop cooperation and communication skills during a role-playing experience
- Participate in community discussions and decision-making processes regarding the rule of law, individual rights, the common good, et cetera
- Draw inferences about, and discuss, the experiences, problems and opportunities that families encountered while settling the California Territory during the early 1800s

Students will participate in a simulation activity that depicts how the California area was settled in the 1800's. Students travel through part of the Oregon-California Trail and role-play early settlers in an attempt to establish their homesteads. In order to survive, settlers must secure land, shelter, food, clothing, salt and water. This extremely experiential class is excellent at developing students prioritizing skills, decision-making skills and cooperation skills.

### **ALPHA BETA**

1 hour

Grades 6-8

Students will:

- Discuss elements of culture
- Role-play a fictional culture
- Observe and/or attempt to participate in a second fictional culture
- Discuss any culture-related issues that arise such as difficulties in communicating with a different culture, cultural barriers and assumptions, and speaking in descriptive rather than evaluative terms of others

While role-playing a member of either Alpha-land or Beta-land society, students will get a chance to visit the other culture. They will then use their observations to interpret the cultures, discuss differences and similarities, and recognize the validity of every culture. This class aims to develop students' curiosity about, and tolerance for, other cultures and individuals marginalized by dominant cultures.

### **NATIVE AMERICAN GAMES**

1 hour

Grades 4-8

Students will:

- Explore Native American cultures through learning traditional survival tactics and participating in community games.
- Sharpen physical reflexes and quick-thinking skills
- Understand the importance of the Four Elements and cycles to Native American life.

The activities in this class will help the students to understand what games young Native Americans would play to learn life skills. The life skills learned through play would create the leaders for the next generation who can think on their feet.

## **TEAM BUILDING**

### **CHALLENGE COURSE**

2 hours

Grades 5-8

Students will:

- Demonstrate safe spotting techniques
- Reflect, discuss, and evaluate elements of group dynamics such as trust, common goal, common experience, leadership and challenge-by-choice of their team
- Participate in one or more low ropes activities in a group setting

In this class, students learn and develop teambuilding skills such as communication, cooperation and trust as groups work to overcome the challenges presented by our low ropes elements. Because the elements are more difficult, Low Ropes is a step above Incredible Journey in a teambuilding progression. Facilitators will determine 3 or more elements that are appropriate for the groups' growth and characteristics.

### **INCREDIBLE JOURNEY**

1 hour

Grades 3-8

Students will:

- Participate in several elements on the Incredible Journey course
- Practice communication and cooperation skills
- Reflect on, discuss, and evaluate the group dynamics of their team

Students participate in a series of obstacles, or challenges, that are designed to promote a strong group dynamic that includes every member of the group. This class aims to strengthen students' problem-solving skills while promoting tolerant and supportive attitudes towards others

### **THE BEAST**

1 hour

Grades 5-8

Students will:

- Describe aspects of and modes of communication including listening, speaking, viewing, reading, writing, gestures, et cetera
- Participate in The Beast activity in one of four roles
- Reflect on, discuss and evaluate their success and use of communication skills

The students are divided into teams, and each member chooses or is assigned a certain role within their team. Their goal is to build a replica of The Beast (made of Tinker toys) that has been hidden from everyone's view. Only one person from each team, the observer, is allowed to see the original Beast, and can then only speak to the relayer. The relayer tells the buyer what materials the Beast is made of and that person, finally, tells the builder how to build a replica. When they are finished, a discussion of their accomplishments and frustrations helps them focus on the two-way street of communication and effective teamwork skills.

### **TOTAL TEAM**

1 hour

Grades 4-8

Students will:

- Participate in several teambuilding games and initiatives
- Practice communication and cooperation skills
- Reflect on, discuss and evaluate the group dynamics of their team

Students play non-competitive games and initiatives, which creates a safe environment for discussion and processing between games, to facilitate students' understanding of cooperative and empathetic skills.

### **GOAL SETTING**

1 hour

Grades 6-8

Students will:

- Discuss the importance of goal setting
- Learn about the process of goal setting
- Formulate their own goals, within the framework of the values of Community, Responsibility, Participation, Solidarity and the Common Good, and Stewardship of God's Creation
- Participate in making class goals for their session at camp

One of the primary functions of leadership is working towards a goal. This class discusses why it is important to have goals, and why they should be as specific as possible. The goal setting process is examined and students are then given an opportunity to individually create some goals for themselves; for their time at camp, or the school year, or their lives. Back in the large group, the class works together to decide on a couple goals for the class to focus on for their time at camp.

### **BLIND BOATMAN**

1 hour

Grades 6-8

Students will:

- Practice giving and receiving directions.
- Examine the importance of leader's knowing how to give direction and take them.
- Explore the different types of communication; beyond verbal.

Students are lined up shoulder to shoulder and must give one classmate, who is facing them, directions, which that person will then relay to another student, who is blindfolded, to a rubber chicken lost at sea. The trick is that the initial line of students can't speak or mouth words. They must use nonverbal communication to give the directions. Trick #2 is that the first student has his/her back to the blindfolded student. The blindfolded student also can't speak.

### **MIXED UP PUZZLES**

1 hour

Grades 6-8

Students will:

- Use creativity to solve problems
- Explore the importance of having a plan
- Participate in group decision making

The group is given a bag of puzzle pieces and asked to put them together. The problem that they must identify is that there are pieces from more than one puzzle. As a group they will have to decide how to go about completing each of the puzzles. This class focuses on identifying problems, coming up with solutions and making a plan, all in a group situation.

### **LEARNING STYLES**

1 hour

Grades 7-8

Students will:

- Participate in a discussion of how everyone learns in different ways
- Take a learning styles inventory (visual, verbal, physical, etc.)
- Reflect on their results
- Discuss why having that kind of information can be useful to a leader

This class focuses on the idea that leaders must be aware that everyone is different, and for this reason must be flexible. There is also an aspect of looking at strengths and weakness and recognizing how to utilize others' strengths in areas that the leader is lacking. The learning styles inventory also serves as great information for students in general.

### **GIMME SHELTER**

1 hour

Grades 3-8

Students will:

- Discuss the importance of shelter as a basic human need
- Discuss the appropriate dimensions, materials and weather considerations in building an effective shelter
- Practice building debris shelters

Students will build debris shelters that are specific to outdoor survival. In small groups, the students will create a plan for building a shelter focusing on materials, structure and safety, then execute their plan. This class aims to promote independence and teambuilding among small groups of students.

## **ORIENTEERING**

1 hour

Grades 5-8

Students will:

- Identify parts of a compass
- Demonstrate setting and finding a bearing
- Apply compass skills to navigate an introductory orienteering course/activity

This class focuses on the basics of compass use and direction finding. After practicing their compass skills, students will participate in a small orienteering course. It aims to strengthen students' mathematical (geometry) skills and outdoor skills.

## **ENVIRONMENTAL STEWARDSHIP**

### **EXTINCTION DISTINCTION**

1 hour

Grades 3-8

Students will:

- Define threatened, endangered and extinct
- Recognize some threatened, endangered and extinct species in California
- List and explain why a species' population numbers can drop
- Explain how humans can help maintain a diversity of species on Earth
- Understand why diversity is important

This class discusses threats to species survival such as habitat fragmentation, pollution, overuse and global warming. Through discussion and activities, students will appreciate how interconnected they are to vanishing species. The students will also learn many ways that people can help disappearing species rebound.

### **MONA MANOR**

1 hour

Grades 5-8

Students will:

- Describe the positive and negative effects of different land development plans
- Participate in a democratic decision-making process
- Identify and discuss the importance of "voice" as personal opinion in a decision-making process
- Identify and discuss the power students may exert in order to influence decisions and situations that they identify as important

This is a role-playing class in which CYO Camp's land has proposed development plans from various company/industry interests. A mock (sometimes unbeknownst to students!) town meeting is the format for this role-play, where students must decide the fate of camp property. Cabin Leaders should expect to role-play company representatives. This class aims to empower students while strengthening their critical-thinking skills.

### **NATURE EXPLORERS**

1 or 2 hours

Grades 4-8

Students will:

- Practice observation skills in a natural setting
- Participate in a nature-based guided hike and cooperative activities
- Identify the basic requirements for all living things to maintain their existence
- Observe and record signs of animal life in their natural habitat
- Interpret the evidence found to determine health of the species that live in the areas covered

Explore the outdoors and sharpen your students' skills of observation with an OEE Staff member. Students will use their senses and learn how to identify the animals that live around CYO Camp through their tracks and other natural evidence.

### **SERVICE PROJECTS**

During afternoon activity time, we will be providing the opportunity for students to give back to the OEE program and CYO Camp. We have added a service project option to our afternoon activities. This will allow students to develop a sense of stewardship and responsibility, and to become active participants in the upkeep and preservation of CYO Camp's natural environment. Staff and students together will do projects such as critter tank cleaning, litter sweeps, clearing trails, and compost maintenance. Please let the PC know if you would like your students to have the option of doing service projects while at camp. There are two different options for service projects during afternoon activities:

1. All students and staff on one given day, preferably later in the week, will do various service projects
2. Service projects will be offered throughout the week

## **FIELD TRIP DAY**

### **KORTUM TRAIL FIELD TRIP**

6-7 hours

Grades 5-8

Students will:

- Learn that tides are a result of gravitational pull from the moon and the sun.
- Learn how the tides affect beach ecosystems.
- Explore the Tide-pool ecosystem, learn about tidal zones and examine organisms that live in this harsh environment.
- Learn about the water cycle, watch erosion and deposition processes
- Experience first hand how water shapes the Earth's surface.
- Be exposed to the beautiful area on the Sonoma Coast, different from the scenery at camp.
- Hike three miles along the Sonoma coastline.

Participants that go on this field trip love the idea of getting away from camp for the day to see another beautiful part of Sonoma County. The excursion begins at Shell Beach with learning about the tides, the intertidal zone ecosystem and "Microscopic Ponderings" in the tide pools. The adventure continues with a three mile hike from Shell Beach to Goat Rock State Beach on the beautiful Kortum Trail. While enjoying the spectacular views along this hike, we capture the moment and share about efforts of environmentalist Bill Kortum. This area was once a proposed sight for a nuclear power plant and housing developments. Through the efforts of Bill Kortum these projects were reconsidered and this wonderful landscape and ecosystem was preserved for future generations. Upon our arrival at Goat Rock State Beach and eating lunch, we continue the adventure with the "Power of Water" class on the beach and at the mouth of the Russian River.

\*Extra Fee Associated with this class

## **THEME DAY**

### **SURVIVAL DAY (4 and 5 day programs only)**

Full day

Grades 5-8

Students will:

- Discuss the most basic needs/priorities for human survival
- Identify the rule of "3s" in terms of outdoor survival
- Practice a variety of skills used to meet survival requirements in the outdoors
- Participate in a culminating activity (scenario hike or role playing game) to demonstrate mastery of various survival skills

Students spend the day learning a variety of survival skills, which might include knot tying, shelter building, fire building, wild edible plants, and first aid. The day ends with hands-on "test" of the students' skills. Through a staff led hike designed around survival scenarios or role-playing activity in which students visit survival stations, students practice new skills. This day is an excellent way to foster cooperation, communication and independence in students.

## **AFTERNOON ELECTIVES**

These activities, led by the Program Staff, occur in the afternoon before dinner, and are more recreational than classes. Students meet at a central location and select the activity they wish to attend. Everyone must participate in an activity since supervision of each student at the Outdoor Environmental Education Center is important.

Teachers may request certain activities. Here is a list of activities that staff may offer: animal tracking, hikes to interesting areas, Native American games, arts and crafts, photo hikes, field games, indoor games, ga-ga ball, volleyball, basketball, face-painting, capture the flag, creative dramatics, etc. Please understand that some activities are weather and season dependent.

## ***EVENING ACTIVITIES***

These activities are somewhat recreational as well as educational. They serve to bring everyone at the Outdoor Environmental Education Center together for enjoyable common experiences. The following activities have proven to be successful, but please feel free to make suggestions or add your own favorite activities to the program. At the conclusion of all evening activities a snack is provided for students, Cabin Leaders and teachers.

**Campfire:** This favorite activity of students includes singing, skits and stories.

**Dutch Auction:** This activity is designed to heighten group cooperation and imagination. The activity requires cabin groups to collect various items such as toothbrushes, flashlights, bandannas and stuffed animals from each member. An "auctioneer" will call for an item and cabins that present that item will receive a point based on creativity. Several requests are not tangible items, but tasks the group must perform or use their imagination to complete. This is a great activity to get cabin groups working together.

**Eco Drama:** This activity gives students a chance to do impromptu skits dealing with natural occurrences. Each cabin group will receive a card from a staff member with something that would occur in nature on it. The students will have a few moments to discuss what they are going to do and then perform their charade in front of the group. After they have finished the group will then try to guess the Eco Drama that was performed.

**Night Hikes:** This activity is designed to get students feeling comfortable in the outdoor world at night. It encourages them to use their senses of hearing, touch and smell in discovering the excitement of the night. For a true immersion in the night, choose the all-evening version

**Predator/Prey:** As students take on the roles of various animals in a food web, they embark on a journey to find food, water and shelter while trying to escape their predators. This high energy, active, outside simulation helps students understand the predator and prey relationship of nature. For groups larger than 80 students, we will split into multiple groups for a more positive experience. This program requires the entire evening.

**Skit Night:** Students, in their cabin groups, present short skits to the assembled group. Students are encouraged to use their imagination and skits are carefully screened. Teachers and Cabin Leaders often enjoy participating as well. It is recommended that skit night occur later in the week so that the students have time to prepare their skits.

**Zingers:** Students are divided into several small groups and rotate through stations. Each station has a high-energy task or relay, which promotes cooperation and teamwork. This activity can be combined with a Night Hike.