NATURE BOWL 2007

COACHES ORIENTATION PACKET

NATURE BOWL OVERVIEW

Goal:

The NATURE BOWL is a team competition for 3rd-6th grade students. Activities focus on regional ecology, natural history and conservation. Its purpose is to motivate students, reinforce environmental concepts, connect science to the environment, and involve students in community conservation projects. The NATURE BOWL also serves as a model for teachers to use in their environmental education instruction.

The NATURE BOWL started as a youth activity in the teacher-oriented Delta Environmental Education Resources (DEER) Fair in 1986. As the NATURE BOWL quickly grew in popularity, the DEER Coalition, a group of environmental educators representing local agencies and organizations, shifted its efforts to focus on the NATURE BOWL. The NATURE BOWL serves students and teachers from counties of the Sacramento Valley, Delta, foothills and Sierra Nevada.

In order to assist teachers in preparing their students for the NATURE BOWL and to promote environmental education as an integral part of the curriculum, regional orientations serve to introduce activities and format. One extended workshop is also available for interested parents and/or teachers.

Any school may send one 3rd/4th grade and one 5th/6th grade team to the semi-finals. Teams may be coached by the teacher or a parent. Regional semi-finals will be conducted in March and April and the finals will be held May 19, 2007 at California State University, Sacramento.

GENERAL PARTICIPATION RULES
SEMI-FINALS AND FINALS

1. Up to 6 or 7 children may be on a team. Only 3 members participate in any given round unless indicated by the judges.

2. Points will be earned for correct answers. Partial credit may be given at the judge's discretion. No points will be lost for an incorrect answer. If you are unsure of an answer, try a guess. You have nothing to lose. You may be right.

3. Be sure to listen for the complete question before you answer. Team members must wait for the judge to ask them for their answer. Participants must be quiet while other individuals are giving an answer.

4. Team members and/or the teacher/coach are not allowed to attend any other session of the NATURE BOWL semi-finals. Your doing so may result in your disqualification.

Most important - RELAX AND ENJOY THE NATURE BOWL! We look forward to seeing you.

NATURE BOWL ACTIVITIES

ROUND 1

NATURE INVESTIGATIONS	Each team will answer a set of questions through outside investigations. Each question will have a time limit. Emphasis is on team work for problem solving. A monitor will record answers.
NATURE RELAY	Items representing environmental concepts are kept on a snow saucer. Team members line up opposite the saucer and rotate one at a time to saucer to retrieve the item that represents the environmental concept announced by the facilitator. Many glossary words are used in this event.

ROUND 2

TEAM PROBLEMS	Each team will be given a series of questions to answer. Team members should quietly discuss their answer. Only one team member should respond to any given question. All answers must be written on the answer sheet provided unless otherwise specified.
BELL-RINGERS	Short answer questions will be given for all teams to answer on a "first-ring" basis. Each team will have a bell to signal an answer.

ROUND 3

ENVIRO-MERCIAL	Each of three students will have up to 60 seconds to present an individual commercial focusing on a local or regional environmental problem and solution. The judges will ask questions after a commercial has been presented.
NATURE GAME	Teams will participate in a nature game. No preparation is needed. Be ready for an active thought-provoking experience.

NATURE BOWL SEMI-FINALS

SAMPLE QUESTION FORMAT

NATURE INVESTIGATIONS ROUND

Each team will be given a set of 5-10 questions to answer through investigation in the out-of-doors. Each question will have a time limit. Teachers are asked to accompany another team through the questions in this round. Students will be accompanied by a monitor who will read the questions and write down the answer the students offer. For this activity, a team is 3 children.

SAMPLE NATURE INVESTIGATIONS QUESTIONS 3RD/4TH GRADE

1. Identify the objects in these touchy-feely boxes and answer the following questions:
   Leave items in box. (2 minutes)
   A – What habitat would you find this in? (river rock)
   B – How is this formed? (gall)
   C – What is the function of this item? (feather)
2. What are two things you can tell about the animal that made this track? (90 seconds)
3. Search the trail and list the objects that would not naturally be found there. (The trail will be identified by the staff.) 20-25 items. (3 ½ minutes)
4. Here is a tray of 15 items. You have 1 minute to study it. Now I will cover the tray and you must think of as many of the items as you can. (90 seconds)
5. Animals often see their world different. Match the picture of the animal with the tool that shows how it sees. What is the advantage of seeing this way for that animal? (2 minutes)

SAMPLE NATURE INVESTIGATIONS QUESTIONS 5TH/6TH GRADE

1. Look at the skull and list three things the skull tells you about the animal. (90 seconds)
2. Search the trail and list the objects that would not naturally be found there. (The trail will be identified by the staff.) 20-25 items. (3 ½ minutes)
3. Using a tree key, determine the name of this tree using this branch of leaves. (2 minutes)
4. Identify the niche or job of three creepy crawlies found in this soil sample. (90 seconds)
5. Locate a deciduous tree. What's the advantage of being deciduous? (90 seconds)
6. One at a time students are blindfolded. Each is led on a circuitous route to a tree. The blindfolded student should study the tree for about 20 seconds (touch, smell, measure) and then be led back to the starting point. Student then locates his/her tree without the blindfold and another student takes a turn.

NATURE RELAY

NATURE RELAY FORMAT

Three teams will line-up across from three snow saucers. The monitor will call out a word or term. One member from each team will run to the saucer and search the items to find one that most closely relates to the word or phrase. For example, if the team members were asked to finds a "producer", they would look for a green plant on the snow saucer, pick up the item and run back to the line. The monitor looks at each item retrieved and if correct the team gets a point. Team members then return the item to the saucer.

NATURE RELAY SAMPLE ITEMS

Word or phrase is what the monitor would say – item in () is what would be on the saucer.

3RD/4TH GRADE

Herbivore(mouse picture)
Amphibian (frog)
Decomposer (fungus)
Nocturnal mammal (bat)
Migration (salmon)
Seed (pinecone)
aquatic animal(picture of fish)
metamorphosis (butterfly)
pollution (oil)
marsh plant (cattail)
predator (snake)
webbed feet (duck)

5th/6th GRADE

Lichen (lichen)
Invertebrate (spider)
Feral (cat)
Commensalism (gall)
Raptor (hawk)
Exotic (opossum)
reptile (snake)
terrestrial mammal (deer)
riverine (smooth rock)
coniferous (pinecone)
renewable (water)
spawning (salmon)

TEAM PROBLEMS

Each team will be asked a series of 5-7 questions. Team members should quietly discuss their answer. One person on the team will write down the team's answer on the answer sheet provided. Answers do not have to be in complete sentences. A single word. phrase or diagram that shows the team knows the answer is adequate. For this activity, a team is 3 children.

TEAM PROBLEMS 3RD/4TH GRADE

1. Using four of the animal puppets in front of you, make a food chain that might be found in Northern California. In what habitat would the food chain occur? (60 seconds)
2. Choose one of the animals listed on the blue card in front of you. Write the word on your answer sheet. Act it out *as a team* for the other teams to guess. You will have 60 seconds to prepare and 30 seconds to act out the word you selected. You may not use oral sound effects. The other teams will have 30 seconds to write down their answer. Each team receives points when they correctly guess or when their acting is correctly guessed.
3. In the basket are a number of lunch items and lunch containers. Which would you choose to have a no-garbage lunch? (1 minute)
4. Look at the items on the table. Trees provide us with many items which we use everyday. We want you to identify which of the items in front of you are made from trees. (2 minutes)

Styrofoam (petroleum)	sugar (plant)
Paint thinner (tree)	popcorn (plant)
Chocolate (tree)	chewing gum (tree)
Powder (talc mineral)	Vick's Vapor Rub (tree)
Cinnamon (tree)	apple (tree)
Basball bat (tree)	maple syrup (tree)

5. Match renewable and non-renewable resources with the objects (products) in front of you. (60 seconds)

TEAM PROBLEMS 5TH/6TH GRADE

1. Choose one of the three concepts listed on the blue card in front of you. Write the word on your answer sheet. Act it out *as a team* for the other teams to guess. You will have 60 seconds to prepare and 30 seconds to act out the word you selected. You may not use oral sound effects. The other teams will have 30 seconds to write down their answer. Each team receives points when they correctly guess or when their acting is correctly guessed.
2. Select an animal/puppet and construct a five part food chain appropriate for the animal. (90 seconds)
3. Name three types of wetlands found in California, three values of wetlands to people, and three human threats to wetlands. (75 seconds)
4. Match each seed with its main way of being dispersed in nature. (60 seconds)
5. On the map, follow the flow of a major river from its origin to its drainage into the Delta.
   (90 seconds)
6. Match the animals with the term that most accurately describes their current population

status. (i.e., opossum=exotic; skunk=native) (60 seconds)

BELL RINGER QUESTIONS

Each team will be given a bell. We will ask a question. The team that rings the bell first will be given the opportunity to answer the question. Teams will be given a BRIEF discussion time of 10 seconds after ringing the bell before they should give their answer. The team member who rings the bell should be prepared with an answer and should not depend on the brief check-in time to poll team members for an answer. If an incorrect answer is given, the team that rang the bell second will be given the opportunity to answer. If another team did not ring, the question will be read again. For this activity, a team is 3 children.

SAMPLE BELL RINGER QUESTIONS 3RD/4TH GRADE

1. Name two reasons animals migrate. (climate, food, shelter)
2. Name one animal that migrates through the Sacramento Valley. (Snow geese, Sandhill Crane, Canadian Geese, King Salmon, Monarch Butterfly)
3. Habitat provides space and clean water. name two other basic needs which must be provided by the habitat. (food, shelter)
4. Name two of the mountain ranges that border the Central Valley. (Sierra Nevada, Coast Range)
5. Name a reason to conserve our natural resources.
6. I will read a series of clues. As soon as you think you know what kind of animal I am, ring the bell. If you are wrong, I will continue for the other participants.
7. Name an adaptation of a grassland animal.
8. Name the California State flower.

SAMPLE BELL RINGER QUESTIONS 5TH/6TH GRADE

1. What is a biologist? (see glossary)
2. Name two energy sources that are not supplied by fossil fuels or nuclear fuels or water. (solar, wind, geothermal, gas-methane-from digesting garbage and other organic material)
3. I will read a series of clues. As soon as you think you know what kind of animal I am, ring the bell. If you are wrong, I will continue for the other participants.
4. What is the major cause of air pollution in the Sacramento Valley? (automobiles)
5. Name two benefits and two problems of having dams. (recreation, power irrigation; disrupts natural migrations, prevents sediment flow, floods habitat)
6. Two parts: name an endangered or threatened species in the delta, Sacramento Valley or foothill region; and name one of the main reason causing its endangerment.
7. What are two functions of feathers? (flight, warmth, camouflage)
8. While habitat loss is the most serious threat to native plants and animals, there are other major threats. Identify another threat to our native plants and animals. (pollution, poaching, invasive species, competition)

ENVIRO-MERCIAL

THE ASSIGNMENT

Students are to identify a local environmental issue affecting the region or community in which the students live. The subjects will vary with each student. Each TEAM will be required to give three individual presentations. Each commercial message should be 60 seconds in length. Each commercial should:

1. Describe the issue, its cause(s) and effects. Be specific.
2. Describe what, if anything, is being done about the issue in your region or community.
3. Suggest a practical solution that the student thinks would help correct the issue. This could be a solution the student invents of the current efforts could be defended.
4. We strongly encourage student to gain first hand information such as by visiting a site, interviewing people, attending a meeting and/or being part of a solution.
5. We highly recommend that students narrow their topic. Possibilities of interest might be local air quality; vernal pool or riparian habitat loss; local recycling oil or plastics; use of disposable diapers, or smart consumer choices when buying food, or other products. Contact your local environmental groups for other ideas.

GROUND RULES

1. Each team will give three individual presentations. Each member of a team presenting a commercial must have a unique presentation. (No team presentations allowed). The commercial should focus on a local issue.
2. A 3" x 5" file card listing the sources of information must be submitted to the judges. 3rd/4th grade students need to list at least three sources; 5th/6th grade students need to list at least five sources. At least one source should be from the community (a person or agency knowledgeable about the problem). Use up-to-date sources. The URL of any website used must be listed.
3. Notes may be made on the rest of the card. Only ONE file card may be used for the presentation. Students do not need to memorize their presentation.
4. A visual aid may be used during the presentation. THE USE OF A VISUAL AID IS NOT REQUIRED. If used, the visual aid must be the size which allows the student to carry it easily into the room in one trip. Judges prefer students' homemade props over adult made or driven props. Some students have created poems, raps and songs; others have personified one or multiple roles.
5. The judges will ask a question(s) about the presentation.

JUDGING CRITERIA:

Response to questions(s) - comprehension of subject; student involvement
Problem selection - regional, relevant, significant, focused
Sources of information - credible, diverse
Thoroughness - cause, effects, solutions
Originality and Creativity
Overall impact of message

COACH PREPARATION

How do I get started? Here are some suggestions we have gathered from past coaches that may help guide you.

COACHES WORKSHOP

Two workshop options are available for coaches. The mini-workshop takes place on a weekday from 3:45 to 5:00. Returning coaches find this one convenient for receiving the coaches packet and any new updates about Nature Bowl. Questions are answered and a brief review of the events and their format are reviewed. The half day workshop is on a Saturday and is recommended for new coaches. This workshop begins with an overview of the Greater Sacramento Valley region's natural history and ecosystems and ends with a mock Nature Bowl. In this way the coaches get the full experience on what the Nature Bowl is all about. Take a workshop to get you started and ideas for fun learning activities to do with your team.

GETTING A TEAM/TEAM MEETINGS

Coaches use many different methods getting a team together. Here are a few.

- Give a presentation to a class about Nature Bowl and have those interested in participating give you a call.
- Send a flyer home describing Nature Bowl and ask those interested to contact you.
- Put an article about Nature Bowl in the school newsletter describing the event and the date for those interested to meet.
- Have an evening meeting and invite parents too, to hear about Nature Bowl. This may help you get a co-coach.
- Offer Nature Bowl as an after school enrichment activity. Many schools have funds that support these kinds of classes. If interest is high, have the students pick the 6/7 member team to represent the school and come and watch the event.
- Meet at lunch with the Nature Bowl Team. This way you can meet often and for short periods of time while they're eating.
- If you are a teacher, integrate environmental education into your curriculum. For example have all students do an enviromercial and have the class pick those to represent their school.
- If you are a parent, meet Saturday mornings or use a classroom after school.
- Many coaches practice with both teams (3rd/4th and 5th/6th) at the same time.

If you get more interest than the rules allow, see if any of the students are in Boy Scouts or 4-H together. They could form their own team.

WHEN TO START

Most teams begin to get organized and start meeting in January. Usually coaches wait till after the workshops and start meeting once a week for 1-2 hours.

TEAM PREPARATION

Here's a few plans including activities to do with the team members to prepare them for Nature Bowl.

JANUARY (3-4 meetings)

- Provide overview of Nature Bowl
- Focus these meetings on learning glossary words and increasing observation skills
- Make flashcards, have team members come up with examples
- Set up an un-nature trail or a nature scavenger hunt
- Try activities in Nature Bowl Brochure
- Pick an animal or plant – What's its adaptation?
- Key concepts-habitat, microhabitat, niche

FEBRUARY (3-4 meetings)

- Decide and start enviromercials; talk about local issues, what's pollution?
- Teach phone etiquette, share resources
- Discuss food chains, life cycles, water cycle
- Identify food chains of different habitats- oak woodlands, rivers, foothills, grasslands
- Practice bell ringers/team problems
- Play charades on environmental concepts from glossary
- Practice teamwork
- List examples to illustrate flashcard vocabulary
- What can you tell from a skull, a track?

MARCH (3-4 meetings)

- Discuss native/non-native plants and animals
- What are natural resources? Which are renewable, nonrenewable? What are the 3 R's?
- What's conservation/preservation?
- Take a field trip to your semifinal site, or zoo. Apply what they have been studying.
- Finish enviro-mercials and practice
- Practice nature investigations by going for a walk at the park or school ground. Can they find an animal sign, stage of a life cycle, a non-native plant?
- Practice nature relay
- Practice teamwork

APRIL

- Semifinal competition at your site
- Talk to classmates about Nature Bowl experience
- Put an article in your school newsletter about the competition and list team members
- Prepare for finals; review concepts, practice enviro-mercials, do Finals extra activity

MAY

- Finals competition

COACH PREPARATION CHECKLIST

Before the Event

Acquaint students with NATURE BOWL
* a fun event; teamwork is emphasized
* opportunity to apply their knowledge of the environment
* review rules
* review format
* focus on regional environments and conservation of natural resources

-Attend orientation workshops to familiarize self with NATURE BOWL format.
-If possible, visit semi-finals site with students (arrange a guided tour, too)
-Practice sample questions and enviro-mercials (in front of others)
-Inform and invite parents, administrators, other teachers, PTA to hear presentations.
-Include time for awards ceremony in transportation logistics
-Confirm transportation arrangements (and have back-up plan)
-Contact local media for coverage (some schools have a public relations person who can make these contacts for you)

Day of Event

-Please contact site if you will be detained or if you are unable to attend!
-Review format, rules; stress teamwork
-Bring snack and lunch
-Arrive early to register, use rest-rooms, etc.
-Get comfortable, relax
-Stay for awards ceremony
-Complete student and teacher evaluation forms before leaving

After the Event

-Encourage students to continue studying the environment and get involved in local issues and activities.
-Write an article for PTA/school newsletter about your experiences at Nature Bowl
-Recognize team at school assembly
-Share enviro-mercials with schoolmates