The SES Adventure Challenge:
An Interdisciplinary, Outdoor Event that Focuses on Team Dynamics, Decision Making and Environmental Education

by

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ABSTRACT

The purpose of this project was to develop an interdisciplinary, outdoor event at the School of Environmental Studies (SES) that focused on team dynamics, decision making and environmental education. This event, the SES adventure challenge, included twenty teams, with approximately ten students on each team, who completed a five-mile hike through Lebanon Hills Regional Park. The hike included a series of eleven checkpoints that were to be completed in order. Each checkpoint had at least one set of questions and/or activities, most of which had an environmental focus.

A committee composed of SES staff members was organized to oversee development of the adventure challenge. An adventure challenge course was created at Lebanon Hills. Question packets and activities, reflecting a mosaic of staff talents and interests, were developed by most SES staff members and incorporated into the adventure challenge course. Heterogeneous student teams were selected and given pre-event instructions. The first SES adventure challenge occurred on June 6, 2000. Slightly modified events took place on June 6, 2001 and June 5, 2002. It is believed that the structure of the adventure challenge is adaptable to a wide variety of locations and situations.
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THE PROBLEM AND ITS SETTING

Statement of the Problem

The purpose of this project was to develop an interdisciplinary, outdoor event at the
School of Environmental Studies (SES) that focused on team dynamics, decision making
and environmental education.

Subproblems

1. To identify a location and create a course appropriate for the adventure
   challenge.
2. To develop question packets and activities appropriate for incorporation
   into the adventure challenge.
3. To coordinate staff development and operation of the adventure challenge.
4. To select student teams and provide motivation and instruction for
   participation in the adventure challenge.
5. To enhance the adventure challenge by implementing appropriate
   enrichments.
Setting

The School of Environmental Studies (SES) at The Minnesota Zoo is a community of leaders learning to enhance the relationships between people and their environments. SES was founded as a partnership between Independent School District 196 (ISD 196) and The Minnesota Zoo in Apple Valley, Minnesota. The first year for SES was 1995-96. Approximately 200 juniors and 200 seniors from ISD 196 attend SES each year. ISD 196 contains four other high schools, six middle schools and twenty-six elementary schools. Approximately 8000 students attend these other four high schools.

All students at SES are required to take house (thematic studies). House is the combined curriculum of language arts, social studies and environmental science. House meets for 180 minutes each day. There are two junior and two senior houses. Each house has approximately 100 students. Houses contain a heterogeneous group of students. Each house is divided into ten pods. There are approximately ten students in each pod. Senior house curriculum differs from junior house curriculum. Electives are course offerings that are not part of house. Electives meet for 90 minutes every other day. Most students take all of their electives at SES. Some students return to their original high school (in ISD 196) for classes not offered at SES, athletics and some other extracurricular activities. SES offers some extracurricular activities.

SES students are required to take intensive theme courses. Intensive theme courses last seven school days and occur near the end of each trimester. There is no house and elective instruction during the intensive theme periods. Intensive theme courses are
offered on site at SES and as field studies away from the SES site. Students must pay for their own field study expenses.

Spring intensive theme courses are completed four days before the official end of the school year in order that seniors can complete graduation activities. These remaining four days of school provide juniors with opportunities to engage in activities that will assist them in their transition to senior year. Such activities include off-site explorations, off-site service projects, leadership workshops and the adventure challenge.

Importance of the Study

The mission of SES is to develop active citizen leaders who are environmentally informed, self-perpetuating learners and are connected to the local and global community. Environmental education (EE) is the focal point of SES. The five objectives of EE (see Definition of Terms – Objectives of EE) are incorporated into SES belief statements.

The adventure challenge immerses SES students in Lebanon Hills Regional Park for most of the day, heightening their awareness of all it contains. Question packets and activities test students’ knowledge and problem solving skills. Students are expected to have an attitude of general respect for the park and the event. Students commit to following an honor code for unmonitored areas. Strong social group skills may be the most valuable asset teams utilize during the adventure challenge. One person simply cannot do it all. It is highly advantageous for everyone on a team to contribute. It is hoped that some
students will take the next step and participate in planning the future of Lebanon Hills Regional Park through committee and volunteer work.

The adventure challenge provides all teachers (both house and elective) at SES with the opportunity to develop an interdisciplinary event that emphasizes EE. It is hoped that this event will stimulate increased coordination between house and elective curricula.

The adventure challenge focuses on effective team dynamics and decision making. At SES, we also choose to make our adventure challenge interdisciplinary, outdoors and EE focused as well. The adventure challenge is adaptable. Logistics, locations, and focus can be adapted. It is hoped that the models provided in this project can be modified to meet the goals of those developing their own adventure challenge.

Limitations

1. The adventure challenge only included the juniors at SES.
2. The adventure challenge was only a one-day event.
3. This project did not formally evaluate student competencies.
4. The adventure challenge generated interest in EE. It was not a complete EE program.
5. This project focused only on an adventure challenge at SES.
Definition of Terms

1. Activity: Skill a team must perform or specific outcome that a team must achieve. (See Appendix C.)

2. Checkpoint (CP): Place on adventure challenge course where teams pick up question packets and/or complete activities.

3. Elective: Any course offering that is not part of house. Electives meet for approximately 90 minutes every other day.

4. Environmental Education (EE): The National Environmental Education Advisory Council (1990) defined EE as:

   A learning process that increases people’s knowledge and awareness about the environment and associated challenges;
   Develops the skills necessary and expertise to meet these challenges;
   Fosters attitudes, motivations and commitments to make informed decisions and take responsible action.

5. House (Thematic Studies): Combined curriculum of language arts, social studies and environmental science. House meets for approximately 180 minutes each day.

6. Intensive Theme: Short course offerings that meet for seven school days near the end of each trimester.

7. ISD 196: Independent School District 196
8. Objectives of EE: The Tbilisi Declaration (International Conference on Environmental Education, 1997) endorsed the following objectives for EE:

- **Awareness** – to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.
- **Knowledge** – to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.
- **Attitudes** – to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.
- **Skills** – to help social groups and individuals acquire the skills for identifying and solving environmental problems.
- **Participation** – to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.

9. Pod: Division of students within a house that share the same work area and many common work responsibilities. There are ten pods in each house with approximately ten students in each pod.

10. Question packet: List of topically related questions. (See Appendix B.)

11. SES: School of Environmental Studies
Assumptions

1. An EE theme will emerge from the question packets and activities created by staff members.

2. Students will respect the adventure challenge honor code and complete initiatives as instructed.

3. Participation in the adventure challenge will help students make connections between house and elective curricula.

4. Participation in the adventure challenge will assist juniors in their transition to senior year.

5. The structure of the adventure challenge is adaptable to a variety of locations and situations.
REVIEW OF LITERATURE

Rationale for Environmental Education

The Tbilisi Declaration (International Conference on Environmental Education, 1977) endorsed the following objectives for EE:

- **Awareness** - to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.

- **Knowledge** - to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

- **Attitudes** - to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.

- **Skills** - to help social groups and individuals acquire the skills for identifying and solving environmental problems.

- **Participation** - to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.

The National Environmental Education Advisory Council (1990) reinforced and clarified these objectives as it defined EE as:

- A learning process that increases people’s **knowledge** and **awareness** about the environment and its associated challenges;

- Develops the necessary **skills** and expertise to meet these challenges;

- Fosters **attitudes, motivations, and commitments** to make informed decisions and take **responsible action**.

Lifelong responsible citizenship is the manifestation of EE objectives and implies students will continue to make informed decisions about environmental issues as adults. Knowledge is a prerequisite for responsible action. Other prerequisites are needed as well (Hines, Hungerford, and Tomera, 1986-87). Environmental literacy must extend
beyond content knowledge and include attitudes, skills and behaviors necessary for functioning responsibly in society (Barron and Cantrell, 1994). Entry-level, ownership and empowerment variables all contribute significantly to citizenship behavior (Hungerford and Volk, 1990). EE objectives address these three variables.

Development of NAAEE Guidelines

The North American Association for Environmental Education (NAAEE) has developed guidelines in three areas of environmental education. They are *Environmental Education Materials: Guidelines for Excellence* (1996), *Excellence in Environmental Education – Guidelines for Learning (K-12)* (1999) and *Guidelines for Initial Preparation of Environmental Educators* (2000). These guidelines were created to provide educators and the public with common, voluntary guidelines for environmental education. Existing frameworks, definitions and models in EE were the foundation for the development of these guidelines (NAAEE, 1999). “These guidelines draw on the best thinking in the field to outline the core ingredients for environmental education” (NAAEE, 1999). These guidelines provide “the scaffolding upon which cohesive, sequential, comprehensive environmental education programs can be created” (Simmons, 1998a).

Connections between NAAEE Guidelines and the SES Adventure Challenge

The SES adventure challenge is an interdisciplinary, outdoor event at the School of Environmental Studies (SES) that focuses on team dynamics, decision making and environmental education. The five objectives of EE (awareness, knowledge, attitudes, skills and participation) are incorporated into the SES adventure challenge to varying degrees. (See Importance of the Study.) These five objectives of EE are emphasized in
the NAAEE Guidelines. The SES adventure challenge is interdisciplinary, outdoors and focused on team dynamics and decision making. NAAEE Guidelines also emphasize the importance of interdisciplinary education, outdoor sites, team dynamics, and decision-making skills. The NAAEE Guidelines and other EE research will be examined more closely in the following sections to establish support for selecting these four components for the SES adventure challenge.

Interdisciplinary Education

"Environmental education is, at its heart, an integrative undertaking. Instructors teach across disciplines, linking the methods and content of natural and social sciences, arts, mathematics, and humanities to help learners fully understand and address complex environmental issues" (NAAEE, 2000). NAAEE Guidelines (1999) also state that EE "works best when infused across the curriculum, rather than being treated as a separate discipline or subject area".

"Because environmental education is, by its very nature, interdisciplinary, the synthesis of learning across subject material is a deliberate and essential outcome" (Simmons, 1998a). In some cases, attitude changes appear to be greatest when interdisciplinary approaches to EE are used (Hepburn, 1978). Interdisciplinary approaches imply the use of a variety of teaching methods. "Various types of teaching methods seem to be effective in improving environmental attitudes and values" (Iozzi, 1986a). Using a variety of teaching methods is effective for connecting with the affective domain (Iozzi, 1986b).
Outdoor Sites

"Instructors foster learners' innate curiosity and enthusiasm, providing them with early and continuing opportunities to explore their environment. 'Taking the show on the road' – or at least out of the classroom – is an important instructional strategy for engaging students in direct discovery of the world around them" (NAAEE, 1999). NAAEE Guidelines (2000) suggest that experiences outside the classroom can allow students to raise their awareness of their local community. This can "prompt a personnel commitment to apply skills and knowledge in pursuit of environmental quality and quality of life" (NAAEE, 2000).

"There is overwhelming research to support the fact that children not only enjoy outdoor experiences, but benefit from them in many ways. So don't just talk about the environment; go outside and touch it, smell it, and feel it" (Iozzi, 1986b). Iozzi (1986a) also states that outdoor education improves environmental values and attitudes. Outdoor environmental units have a significant positive effect on student attitudes toward the environment (Jernigan and Wiersch, 1978). Both Iozzi (1986b) and Volk (1993) advocate participation in outdoor experiences whenever possible. Simmons (1998b) observed that teachers believed "it was important to provide nature experiences as part of the curriculum, that their students would enjoy these experiences, and that participation in programs at natural areas would be educationally worthwhile". Tanner (1980) states that "youthful experience of the outdoors in relatively pristine environments emerges as a dominant influence" later in life.
Team Dynamics / Skills

“Critical and creative thinking, decision making, and communication, as well as collaborative learning, are emphasized. These skills are essential for active and meaningful learning, both in school and over a lifetime” (NAAEE, 1999). NAAEE Guidelines (2000) also emphasize that the development of “communication skills helps learners demonstrate and disseminate their knowledge.”

“Environmental education supports the development of an active learning community where learners share ideas, expertise, and prompt continued inquiry” (Simmons, 1998a). Brooks and Brooks (1993) claim that “discourse with one’s peer group is a critical factor in learning and development.” They also state that it is important for schools to create settings that encourage this type of interaction.

Decision-Making / Critical Thinking Skills

“It (EE) emphasizes critical and creative thinking skills along with higher level thinking processes that are key to identifying, investigating, and analyzing issues, and formulating and evaluating alternative solutions” (NAAEE, 1996). NAAEE Guidelines (1996) also recognize the possibility of multiple solutions to some problems. EE “cultivates the ability to recognize uncertainty, envision alternative scenarios, and adapt to changing conditions and information” (NAAEE, 1996).

Iozzi (1986b) mentions the importance of developing “thinking, problem solving and decision-making skills”. Developing decision-making / critical thinking skills will allow students to become more active in their learning. Active participation is a more effective approach to EE than passive participation (Schwaab, 1982).
Limitations of the SES Adventure Challenge

The SES adventure challenge is a one-day event. Although the adventure challenge successfully reinforces EE concepts and generates future interest in EE for both students and staff at SES, it is only a small part of a much larger EE program. Ramsey, Hungerford and Volk (1992) caution against the episodic treatment of EE. “Environmental education must be systematically constructed and theoretically valid to achieve its goals” (Ramsey, Hungerford and Volk, 1992). Simmons (1998a) states that “only the development of a comprehensive environmental education program insures that it will not be marginalized or fragmented... To be effective, environmental education programs must be constructed and cannot be left to chance.”

Inspiration for the SES Adventure Challenge

Inspiration for the initial SES adventure challenge came from the Eco-Challenge, a six to twelve day expedition race that has been held annually in different locations worldwide since 1995. It is a multi-sport endurance race that features teams of four members completing activities such as mountaineering, horseback riding, rafting, kayaking, swimming, trekking and mountain biking. “The Eco-Challenge is a challenge that transcends physical fitness and the individual; its very essence lies in team dynamics and the ability to solve problems under constant stress ... The race demands mutual respect for others and for the environment, while each individual is pushed to the very edge of human endurance” (Eco-Challenge, 2001). “Competing in the Eco-Challenge demands inspired strategy, relentless stamina, and iron will – and perhaps the key factor and toughest to train for is teamwork” (Burnett and Yates, 2000).
There is a heavy emphasis on team dynamics and critical thinking / decision-making skills in both the Eco-Challenge and SES adventure challenge. Pushing one’s limits is a major component of the Eco-Challenge. Students are asked to push their limits physically, cognitively and affectively in the SES adventure challenge, although not to the “very edge of human endurance”.

“The Eco-Challenge is based on the philosophy that interaction with the environment requires both a knowledge of and respect for the terrain through which the race travels” (Eco-Challenge, 2001). Participants must abide by a “leave no trace” philosophy and assist with an environmental service project in the host country. This “leave no trace” ethic is emphasized during the SES adventure challenge.

Lesson plans based on the Eco-Challenge have been developed and are available at www.usanetwork.com/cableinclassroom/eco. These plans appear to be written at the middle school level, but could be adapted to fulfill various objectives.
RESEARCH METHODOLOGY

In this section each subproblem is restated followed by a description of steps completed to address each subproblem. This section focuses on the first SES adventure challenge in the spring of 2000.

Subproblem 1: To identify a location and create a course appropriate for the adventure challenge.

Lebanon Hills Regional Park contains a mix of grassland, woodland and swampland in the 2000 acres it encompasses. It contains a large number of lakes and rolling hills created by receding glaciers. Lebanon Hills is also adjacent to SES, making it an ideal location for the SES adventure challenge.

I repeatedly skied, hiked and ran through the trail system of Lebanon Hills in order to develop a course that had the distance and features most suited to our adventure challenge. A small group of staff also hiked the trails with me to discuss the most advantageous course set-up. We developed a course map. Some checkpoints would be staff-monitored and include both activities and question packets. Other checkpoints would be self-monitored and include only question packets. I discussed the adventure challenge with the personnel at Dakota County Parks and received a permit for the event.

The night before the adventure challenge, we placed the question packets in ziploc bags and taped them to posts at each of the checkpoints. Flagging tape was also used in order
to help students locate the checkpoints more easily. All materials were picked up shortly after the adventure challenge.

To accommodate 200 students, the course needed to have two start/finish areas. Two itineraries were developed in order that ten teams would begin at each start/finish point staggered in four-minute intervals. (See Appendix A for details of the adventure challenge course for each of the years 2000, 2001 and 2002.)

Subproblem 2: To develop question packets and activities appropriate for incorporation into the adventure challenge.

All staff members were invited to create question packets and/or activities for the adventure challenge. It was important to create a mosaic of staff talents and interests. Although EE was not a requirement for these question packets and activities, it was expected that an EE theme would still emerge since so much of the SES curriculum is focused on EE.

It was expected that staff would set-up, take-down, oversee and assign point values to the activities they created. I assisted with the assignment of point values to these activities, filling staff in on general scoring guidelines and giving them as much autonomy and flexibility as they chose to have. I also assigned point values to the question packets in consultation with the contributing staff. (See Appendix B for the actual question packets. See Appendix C for a description of each activity.)
Subproblem 3: To coordinate staff development and operation of the adventure challenge.

Pre-adventure challenge

I organized an adventure challenge committee and served as its chair. We fit question packets and activities designed by staff into the adventure challenge course, aligning them with the most appropriate checkpoints. I delegated junior house staff to select student teams and provide a roster for monitoring attendance on the adventure challenge course. (See Appendix D for examples of organizational correspondence with staff.)

The-adventure challenge

I made sure all checkpoints were adequately staffed and gave written instructions for what needed to be done at each checkpoint. (See Appendix D.) Staff signed up for the monitored checkpoints of their choice. Staff monitored the activities they created. Supporting staff recorded times/attendance, assisted with snack distribution and even graded completed question packets.

Post-adventure challenge

Various staff members monitored post-race activities, tabulated results, wrote certificates, constructed awards and captured the adventure challenge on film.

Subproblem 4: To select student teams and provide motivation and instruction for participation in the adventure challenge.

House teachers divided students into twenty teams with approximately ten students on each team. Each pod was randomly divided in half and paired with half of a pod from the
other junior house. The result was that each student was very familiar with half of his/her team and most likely not familiar with the other half of his/her team. This was intentional. We wanted students to get used to working with unfamiliar students in preparation for their senior year.

On the day before the adventure challenge, I gave students a fifteen-minute orientation about the adventure challenge. Students watched a five-minute video clip from *Discovery Channel Eco-Challenge Argentina* (Burnett and Yates, 2000), which was compared and contrasted to their adventure challenge. Students were given a written and verbal overview of the event and notified of team selection. (See Appendix A: *SES Adventure Challenge – An Odyssey into Body, Mind, and Team*)

On the day of the adventure challenge, students gathered with their teammates. They were given an itinerary, course map and final briefing.

Subproblem 5: To enhance the adventure challenge by implementing appropriate enrichments.

Snacks and water were made available to students at the start/finish area and the midpoint of the course. Since it was expected that teams would finish in a wide variety of times, self-monitored post-race activities were conducted at each start/finish area. Pictures were taken during the adventure challenge and displayed at the awards ceremony the following day. All participating students received certificates of completion. Students on the top three teams for each course received special recognition medals.
RESULTS

In this section each subproblem is restated followed by what was retained and what was adjusted during the 2001 and 2002 adventure challenges. The adjustments were a response to items identified that could improve the adventure challenge.

Subproblem 1: To identify a location and create a course appropriate for the adventure challenge.

We retained the same general area in Lebanon Hills for both the 2001 and 2002 adventure challenges because of its wide array of natural features and proximity to SES. The course was slightly adjusted and one checkpoint was added in order to create a longer event starting in 2001. We retained the same two start/finish areas for 2001 and 2002 since each area had adequate picnic and restroom facilities. Teams were staggered in five-minute intervals starting in 2001 in order to minimize congestion at some checkpoints. Park permits were obtained each year. The system of question packet set-up and take-down remained unchanged in 2001 and 2002 because it was effective. (See Appendix A.)

Subproblem 2: To develop question packets and activities appropriate for incorporation into the adventure challenge.

There were a considerable amount of adjustments made to question packets and activities in 2001 as staff members sought to improve the adventure challenge. Question packets added in 2001 in order to lengthen the adventure challenge and emphasize different
components of the SES curriculum were *National Parks* and *Those Dam Rivers*. Question packets adjusted in 2001 were *Multiple Meaning*, *Chemistry Corner* and *Name that Quote*. The primary reason for these adjustments was to reflect changes in curriculum. (See Appendix B.)

The SES adventure challenge is a dynamic event and SES staff members enjoy experimenting with new ideas. Therefore, there were major changes in some activities in 2001, although the locations of the four activity centers were retained for 2001. *Who Let the Dogs Out* replaced *Habitat Balance / The Penguins*. *Wild Fire* replaced *Wounded at Checkpoint 8(B)*. Minor adjustments were made to existing activities as well. (See Appendix C.)

In 2001, a few question packets were moved to different checkpoints to reduce congestion at some checkpoints. Minor adjustments were made to the point values of some question packets and activities to make the scoring system more balanced.

Fewer adjustments were made in 2002 since course length had been optimized. Question packets adjusted in 2002 in order to reflect changes in curriculum were *National Parks* and *Name that Quote*. (See Appendix B.) There were some significant changes in activities in 2002, reflecting the wish for staff members to experiment with new ideas. *Trick or Tweet* replaced *Who Let the Dogs Out*. *Amazing* replaced *Math Bibliography Jeopardy*. *Skullduggery* replaced *Fecal Follies*. (See Appendix C.) No question packets were moved to different checkpoints and point value adjustments were minimal in 2002.
Subproblem 3: To coordinate staff development and operation of the adventure challenge.

The same organizational structure for staff operation of the adventure challenge was retained for 2001 and 2002 because it was very effective. An increasing number of SES alumni (graduates) have assisted with the adventure challenge each year. The adventure challenge has greatly benefited from the alumni support both in terms of the enthusiasm brought to the event and the operational assistance provided at the event.

Subproblem 4: To select student teams and provide motivation and instruction for participation in the adventure challenge.

The same process of team selection was used in 2001 and 2002 in order that students were teamed with a heterogeneous mixture of familiar and unfamiliar students. Starting in 2001, more attention was given to the number of students on each team who would have to leave early or arrive late to the adventure challenge due to classes at their original ISD 196 school. This adjustment helped equalize the number of students on each team. The method of motivating and instructing students was essentially retained for 2001 and 2002 since it was effective. Displays with past adventure challenge pictures and results have generated interest prior to the adventure challenges in 2001 and 2002.
Subproblem 5: To enhance the adventure challenge by implementing appropriate enrichments.

The same adventure challenge enrichments were retained in 2001 and 2002. Only minor adjustments were made to these enrichments since they were effective at making the adventure challenge more enjoyable. The creation of an adventure challenge video in 2002 was the only new enrichment.
CONCLUSIONS AND RECOMMENDATIONS

The adventure challenge has been successful enough to become an annual event at SES. It provides a structure for students to reinforce aspects of EE, link house and elective curricula and begin their transition from junior year to senior year. It emphasizes team dynamics and decision making, critical components of SES. Equally important, the adventure challenge is fun – fun for students, staff and supporting alumni.

The structure of the adventure challenge appears to be adaptable to a wide variety of locations and situations. It has been successfully incorporated into our Outdoor Winter Recreation intensive theme at SES, although the focus of this event is not EE. Outdoor Winter Recreation at SES has thirty to forty students. (See Appendix E.) A well-organized adventure challenge may be an excellent way to generate staff interest in EE and interdisciplinary teaching.

In this section each subproblem has been restated. Comments under “Conclusion” summarize the SES adventure challenge. Comments under “Recommendations” provide insights that may be useful for instructors who choose to develop their own adventure challenge.

Subproblem 1: To identify a location and develop a course appropriate for the adventure challenge.

Conclusions: Lebanon Hills Regional Park was an excellent site for the SES adventure challenge because of its wide array of natural features, adequate facilities and proximity
to SES. The large time investment spent developing the course was very worthwhile. Relatively few adjustments needed to be made.

Recommendations: Natural features, facilities and proximity should be considered when identifying a location for an adventure challenge. Activities, question packets and the locations of checkpoints must be well planned in order to minimize congestion on the course.

Subproblem 2: To develop question packets and activities appropriate for incorporation into the adventure challenge.

Conclusions: Our staff at SES developed a wide array of question packets and activities, reflecting a mosaic of staff talents and interests. An EE theme emerged during our adventure challenge since EE was incorporated into most question packets and activities.

Recommendations: Expectations for question packets and activities should be clear, but staff needs to be allowed considerable autonomy in creating them. Emphasizing the incorporation of EE into question packets and activities should increase the extent to which an adventure challenge will take on an EE focus.

Subproblem 3: To coordinate staff development and operation of the adventure challenge.

Conclusions: Our staff at SES developed a successful structure for the adventure challenge because of the active involvement of so many staff members. The operation of the adventure challenge was quite smooth since written and verbal instructions regarding
staff responsibilities were clear and our staff was exceptional at making appropriate adjustments as needed.

Recommendations: Many staff members should be involved in the development process of an adventure challenge. An atmosphere of experimentation, risk and fun should be encouraged. Staff members need to be well versed as to the operation of the adventure challenge, but also prepared to make adjustments as needed.

Subproblem 4: To select student teams and provide motivation and instruction for participation in the adventure challenge.

Conclusions: Team formation was successful in that students were able to work closely with a wide range of their peers. Smaller teams would be preferred, but this was not practical to our situation at SES. Motivation and instruction prior to the adventure challenge was adequate.

Recommendations: Team dynamics are a very important component of an adventure challenge. Developing teams with a heterogeneous mixture of familiar and unfamiliar students worked well for the SES adventure challenge. Giving students the itinerary and course map on the day of the adventure challenge emphasizes the importance of team planning while “on the go”.
Subproblem 5: To enhance the adventure challenge by implementing appropriate enrichments.

Conclusions: Enrichments have helped make our adventure challenge at SES a truly enjoyable event for students, staff and alumni.

Recommendations: Enrichments can help make an adventure challenge more enjoyable. The ideas and talents of staff members should be well received.
REFERENCES


USA Network. Cable in the Classroom. http://www.usanetwork.com/cableinclassroom/eco

APPENDIX A
Instructions, Itineraries, Maps and Final Results

Instructions, itineraries (one for each start / finish area), course maps and final results appear sequentially in this appendix for the SES adventure challenge on June 6, 2000.

The same information for the SES adventure challenges in 2001 and 2002 is also included in this appendix in chronological order.
SES ADVENTURE CHALLENGE
An Odyssey into Body, Mind and Team (2000)

OBJECTIVE
Complete a challenging course through Lebanon Hills Regional Park using teamwork, endurance and academic skills.

DESCRIPTION
20 teams (10 students on each team) will complete a 4-5 mile hike through Lebanon Hills Regional Park. There will be a series of checkpoints (11 total, plus two bonus checkpoints). Checkpoints must be completed in order. Teams must arrive at each checkpoint together and leave each checkpoint together.

This is not just a hike---Each checkpoint will have at least one set of questions and/or an activity for the team to complete. Performance will be measured by a simple formula: each question/activity will be worth a certain number of points, and each point obtained will reduce your total time by 30 seconds.

INSTRUCTIONS

Gold Course
Starts and ends at Jensen Lake picnic shelter. Passes by Holland Lake --- follow the NUMBERS on map.

Green Course
Starts and ends at Holland Lake picnic shelter. Passes by Jensen Lake --- follow the LETTERS on map.

- At each checkpoint, team must write their team number and the time on their question packet. (Packets will be found in a ziploc bag attached to checkpoint)
- Re-seal ziploc bags tightly in case of rain.
- Each question packet will specify where it is to be handed in (usually to a teacher at a future checkpoint).
- If there is an activity, it will be explained by a staff member at the checkpoint.
- Follow all instructions at each checkpoint!

RULES
1. Stay on HIKING trails --- Absolutely NO using horse trails.
2. No collaborating with other teams to complete question packets.
3. Although many staff an alumni will be present throughout the course, completion of group initiatives will be based on honor code. Please respect the SES Adventure Challenge and the other teams by completing all instructions given.
4. There will be a 20 minute time penalty for any missed checkpoint (except for bonus checkpoints).
5. All teams must be at their respective start/finish area by 1:30 pm.

SAFETY
- There will be water/bathrooms at CP 6/K and 11/E, and water only at CP 8/B.
- In case of injury, send 2 runners to CP 6/K, 8/B or 11/E for staff assistance.
- In the event of lighting storm, find nearest shelter if possible and stay put.
EQUIPMENT
Each person must have the following while on trail:
- Small backpack or fanny pack
- Water bottle (full)
- Raingear
- Trail snacks (granola bars, snickers, etc.)
- Comfortable shoes (running or hiking)
- Enough layers to keep you warm in any weather

Your clothes will get dirty --- dress appropriately.

Each team must have the following while on trail:
- Watches (3)
- Pens (1 each)
- Trail maps (3)
- Itinerary (3)
- Copy of rules (this form) (3)
- Calculators (3)
- Periodic table of elements (2)

Each person should have the following at the start/finish area:
- Lunch
- Extra set of dry clothes
- Change of socks
- Change of shoes

SCHEDULE
7:35-7:45 Gather as teams. Check out maps and itinerary. Attendance.
7:45-8:00 Pre-Race meeting
8:00-8:15 Transport to Jensen/Holland Lake (BUS)
8:30 Race start. This will be staggered start--- be ready 5-10 minutes before you start time so you may benefit from last minute reminders/instructions.

<table>
<thead>
<tr>
<th>Gold Teams (Jensen)</th>
<th>Green Teams (Holland)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 1A</td>
<td>8:30 1B</td>
</tr>
<tr>
<td>8:34 2A</td>
<td>8:34 2B</td>
</tr>
<tr>
<td>8:38 3A</td>
<td>8:38 3B</td>
</tr>
<tr>
<td>8:42 4A</td>
<td>8:42 4B</td>
</tr>
<tr>
<td>8:46 5A</td>
<td>8:46 5B</td>
</tr>
<tr>
<td>8:50 6A</td>
<td>8:50 6B</td>
</tr>
<tr>
<td>8:54 7A</td>
<td>8:54 7B</td>
</tr>
<tr>
<td>8:58 8A</td>
<td>8:58 8B</td>
</tr>
<tr>
<td>9:02 9A</td>
<td>9:02 9B</td>
</tr>
<tr>
<td>9:06 10A</td>
<td>9:06 10B</td>
</tr>
</tbody>
</table>

Post Race Activities (TBA)
Return to SES at 1:40 pm

WORDS TO THE WISE
- Plan for a 3 to 5 hour Adventure Challenge
- Eat well and drink well before and during Adventure Challenge
- Remember the 6 P’s of adventure challenges
SES ADVENTURE CHALLENGE

Itinerary

Team A - Gold Course.
Course Start: Jensen Lake

Checkpoint 1:
- Question Packet: “Multiple Meaning”
  - Record Team and Pick-up Time
  - Turn in when you arrive at CP 3

Checkpoint 2:
- Question Packet: “Environmental”
  - Record Team and Pick-up Time
  - Turn in when you arrive at CP 3

Checkpoint 3:
- Check in with teacher
  - Turn in Questions from CP 1, 2
  - Question Packet: “French/Spanish Challenge”
    - Record Team and Pick-up Time
    - Turn in before you leave CP 3
  - Activity: “Habitat Balance”
  - Activity: “The Penguins” (turn this in to teacher)

Checkpoint 4:
- Question Packet: “Bolsoni Quiz”
  - Record Team and Pick-up Time
  - Turn in when you arrive at CP 6

Checkpoint 5:
- Special Instructions:
  - Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
  - These 2 people will meet the team at CP 6 - TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP 6.
  - Bonus Question Packet: “Animal Planet”
    - Record Team member names, team number and Pick-up Time
    - Turn in before you leave CP 6
  - Question Packet: “People’s Choice”
    - Record Team and Pick-up Time
    - Turn in when you arrive at CP 6

Checkpoint 6:
- Check in with teacher
  - Turn in Questions from CP 4, 5
  - Question Packet: “Counselor’s Corner”
    - Record Team and Pick-up Time
    - Turn in before you leave CP 6
  - Activity: “Math Bibliography Jeopardy” (turn this in to teacher)
  - Activity: “How Tall is that Tree, Anyway?”
  - Activity: “How well do you know your sh##?”

Check out with teacher (Those at East Bonus MUST be back before you leave CP6)
Checkpoint 7:
  Question Packet: “It’s Elementary”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 8

Checkpoint 8:
  Check in with teacher
  Turn in Questions from CP 7

  Question Packet: “Name that Quote”
  Record Team and Pick-up Time
  Turn in before you leave CP 8

  Activity: “Wounded at Checkpoint 8”
  Check out with teacher

Checkpoint 9:
  Question Packet: “Who Wants a Million Doll-Hairs?”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 11

Checkpoint 10:
  Special Instructions:
  Send 2 people from your team to West Bonus (15 minutes credited to your score).
  These 2 people will meet the team at CP 11- TEAM CAN CONTINUE ACTIVITIES
  WITHOUT THEM UNTIL THEY REJOIN AT CP 11.

  Bonus Question Packet: “It Must be the Water”
  Record Team member names, team number and Pick-up Time
  Turn in before you leave CP 11

  Question Packet: “Interpretive Signs”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 11

Checkpoint 11:
  Check in with teacher
  Turn in Questions from CP 9,10

  Question Packet: “Chemistry Corner”
  Record Team and Pick-up Time
  Turn in before you leave CP 11

  Question Packet: “RU Renewable”
  Record Team and Pick-up Time
  Turn in before you leave CP 11

  Activity: “Voyageur Canoe Rendezvous”

  Check out with teacher (Those at west Bonus MUST be back)
  THIS IS THE END OF YOUR RACE- make sure you check out so your final time is
  recorded

  ****Stay tuned for post-race activities****
SES ADVENTURE CHALLENGE

Itinerary

Team B- Green Course.
Course Start: Holland Lake

Checkpoint A:
Question Packet: “It’s Elementary”
Record Team and Pick-up Time
Turn in when you arrive at CP B

Checkpoint B:
Check in with teacher
Turn in Questions from CP A

Question Packet: “Name that Quote”
Record Team and Pick-up Time
Turn in before you leave CP B

Activity: “Wounded at Checkpoint B”
Check out with teacher

Checkpoint C:
Question Packet: “Who Wants a Million Doll-Hairs?”
Record Team and Pick-up Time
Turn in when you arrive at CP E

Checkpoint D:
Special Instructions:
Send 2 people from your team to West Bonus (15 minutes credited to your score).
These 2 people will meet the team at CP E- TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP E.

Bonus Question Packet: “It Must be the Water”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP E

Question Packet: “Interpretive Signs”
Record Team and Pick-up Time
Turn in when you arrive at CP E

Checkpoint E:
Check in with teacher
Turn in Questions from CP C,D

Question Packet: “Chemistry Corner”
Record Team and Pick-up Time
Turn in before you leave CP E

Question Packet: “RU Renewable”
Record Team and Pick-up Time
Turn in before you leave CP E

Activity: “Voyageur Canoe Rendezvous”
Check out with teacher (Those at west Bonus MUST be back)

Checkpoint F:
Question Packet: “Multiple Meaning”
Record Team and Pick-up Time
Turn in when you arrive at CP H
Checkpoint G:
   Question Packet: “Environmental”
   Record Team and Pick-up Time
   Turn in when you arrive at CP H

Checkpoint H:
   Check in with teacher
   Turn in Questions from CP F,G
   Question Packet: “French/Spanish Challenge”
   Record Team and Pick-up Time
   Turn in before you leave CP H
   Activity: “Habitat Balance”
   Activity: “The Penguins” (turn this in to teacher)
   Check out with teacher

Checkpoint I:
   Question Packet: “Bolsoni Quiz”
   Record Team and Pick-up Time
   Turn in when you arrive at CP K

Checkpoint J:
   Special Instructions:
   Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
   These 2 people will meet the team at CP K. TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP K.
   Bonus Question Packet: “Animal Planet”
   Record Team member names, team number and Pick-up Time
   Turn in before you leave CP K

Question Packet: “People’s Choice”
   Record Team and Pick-up Time
   Turn in when you arrive at CP K

Checkpoint K:
   Check in with teacher
   Turn in Questions from CP I,J
   Question Packet: “Counselor’s Corner”
   Record Team and Pick-up Time
   Turn in before you leave CP K
   Activity: “Math Bibliography Jeopardy” (turn this in to teacher)
   Activity: “How Tall is that Tree, Anyway?”
   Activity: “How well do you know your sh##?”
   Check out with teacher (Those at East Bonus MUST be back before you leave CP K)

THIS IS THE END OF YOUR RACE- make sure you check out so your final time is recorded

*****Stay tuned for post-race activities*****
Lebanon Hills Regional Park
Summer Trails

- Respect the rights of other park visitors.
- Use trail for designated purposes only.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or other park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.
| Team:            | 1a | 2a | 3a | 4a | 5a | 6a | 7a | 8a | 9a | 10a | 1b | 2b | 3b | 4b | 5b | 6b | 7b | 8b | 9b | 10b |
|-----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Multiple Meaning| 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | -  | -  | -  | -  | 28 | 28 | -  | -  | -  | -  | 28 |
| Environmental 8 | 12 | 12 | 14 | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 12 | 14 | 10 | 12 | 10 | 10 | 12 | 10 | 12 |
| French/Spanish | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Habitat Balance | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Penguins       | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Bolsoni        | 9  | 17 | 17 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Animal Planet  | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| East Bonus     | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| People's Choice| 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |
| Math Bible     | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| How tall is tree | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Poop           | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| It's Elementary | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 20 | 20 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Name That Quote | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 20 | 20 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Wounded        | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 20 | 20 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Million Doll-Hairs | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 20 | 20 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| Must be water  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| West Bonus     | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Interpretive Signs | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Chemistry Corner | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| RU Renewable   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Voyageur Canoe | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Credit Points  | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 |
| Credit Minutes | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 |
| Bonus Minutes  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  | -  |
| Subtotal Credit/Time | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 | 1:08 |
| Time (Adjusted) | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 | 2:06 |

**IF YOUR NAME WASN'T ON IT, WE DIDN'T COUNT IT!**

Congratulations for completing your Adventure Challenge!
SES ADVENTURE CHALLENGE  
*An Odyssey into Body, Mind and Team*  
(2001)

**OBJECTIVE**  
Complete a challenging course through Lebanon Hills Regional Park using teamwork, endurance and academic skills.

**DESCRIPTION**  
20 teams (10 students on each team) will complete a 4-5 mile hike through Lebanon Hills Regional Park. There will be a series of checkpoints (12 total, plus two bonus checkpoints). Checkpoints must be completed in order. **Teams must arrive at each checkpoint together and leave each checkpoint together.** (This means all team members must touch each checkpoint post simultaneously.)

This is not just a hike---Each checkpoint will have at least one set of questions and/or an activity for the team to complete. Performance will be measured by a simple formula: each question/activity will be worth a certain number of points, and each point obtained will reduce your total time by **30 seconds.**

**INSTRUCTIONS**

<table>
<thead>
<tr>
<th>Gold Course</th>
<th>Green Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starts and ends at Jensen Lake picnic shelter. Passes by Holland Lake --- follow the NUMBERS on map.</td>
<td>Starts and ends at Holland Lake picnic shelter. Passes by Jensen Lake --- follow the LETTERS on map.</td>
</tr>
</tbody>
</table>

- At each checkpoint, team must write their team number and the time on their question packet. (Packets will be found in a ziploc bag attached to checkpoint)
- Re-seal ziploc bags tightly in case of rain.
- Each question packet will specify where it is to be handed in (usually to a teacher at a future checkpoint).
- If there is an activity, it will be explained by a staff member at the checkpoint.
- Follow all instructions at each checkpoint!

**RULES**

1. Stay on HIKING trails --- Absolutely NO using horse trails.
2. No collaborating with other teams to complete question packets.
3. Although many staff and alumni will be present throughout the course, completion of group initiatives will be based on honor code. Please respect the SES Adventure Challenge and the other teams by completing all instructions given.
4. There will be a 20 minute time penalty for any missed checkpoint (except for bonus checkpoints).
5. All teams must be at their respective start/finish area by 1:30 pm.

**SAFETY**

- There will be water/bathrooms at CP 6/L and 12/F.
- In case of injury, send 2 runners to CP 6/L or 12/F for staff assistance.
- In the event of lightning storm, find nearest shelter if possible and stay put.
EQUIPMENT
Each person must have the following while on trail:
- Small backpack or fanny pack
- Water bottle (full)
- Raingear
- Trail snacks (granola bars, snickers, etc.)
- Comfortable shoes (running or hiking)
- Enough layers to keep you warm in any weather

Your clothes will get dirty --- dress appropriately.

Each team must have the following while on trail:
- Watches (3)
- Pens (1 each)
- Trail maps (3)
- Itinerary (3)
- Copy of rules (this form) (3)
- Scientific calculators (3)
- Periodic table of elements (2)

Each person should have the following at the start/finish area:
- Lunch
- Extra set of dry clothes
- Change of socks
- Change of shoes

SCHEDULE
7:35-7:50 Gather as teams. Check out maps and itinerary. Attendance.
7:50-8:10 Pre-Race meeting
8:10-8:30 Transport to Jensen/Holland Lake (BUS)
8:40 Race start. This will be staggered start---be ready 5-10 minutes before your start time so you may benefit from last minute reminders/instructions.

Gold Teams (Jensen) Green Teams (Holland)
8:40 1A 1B
8:45 2A 2B
8:50 3A 3B
8:55 4A 4B
9:00 5A 5B
9:05 6A 6B
9:10 7A 7B
9:15 8A 8B
9:20 9A 9B
9:25 10A 10B

Post Race Activities (TBA)
Return to SES at 1:40 pm

WORDS TO THE WISE
- Plan for a 3 to 4 hour Adventure Challenge
- Eat well and drink well before and during Adventure Challenge
- Remember the 6 P’s of adventure challenges
SES ADVENTURE CHALLENGE
Itinerary
Team A- Gold Course.
Course Start: Jensen Lake

Checkpoint 1:
  Question Packet: “Multiple Meaning”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 3

Checkpoint 2:
  Question Packet: “Environmental”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 3

Checkpoint 3:
  Check in with teacher
  Turn in Questions from CP 1,2
  Question Packet: “French/Spanish Challenge”
  Record Team and Pick-up Time
  Turn in before you leave CP 3
  Question Packet: “RU Renewable”
  Record Team and Pick-up Time
  Turn in before you leave CP 3
  Activity: “Who Let the Dogs Out?”
  Check out with teacher

Checkpoint 4:
  Question Packet: “Bolsoni Quiz”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 6

Checkpoint 5:
  Special Instructions:
  Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
  These 2 people will meet the team at CP 6- TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP 6.
  Bonus Question Packet: “Animal Planet”
  Record Team member names, team number and Pick-up Time
  Turn in before you leave CP 6
  Question Packet: “People’s Choice”
  Record Team and Pick-up Time
  Turn in when you arrive at CP 6

Checkpoint 6:
  Check in with teacher
  Turn in Questions from CP 4,5
  Question Packet: “Counselor’s Corner”
  Record Team and Pick-up Time
  Turn in before you leave CP 6
  Activity: “Math Bibliography Jeopardy”
  Activity: “How Tall is that Tree, Anyway?”
  Activity: “Fecal Follies”
  Check out with teacher (Those at East Bonus MUST be back before you leave CP6)
Checkpoint 7:
Question Packet: “It’s Elementary”
Record Team and Pick-up Time
Turn in when you arrive at CP 8

Checkpoint 8:
Check in with teacher
Turn in Questions from CP 7

Question Packet: “National Parks”
Record Team and Pick-up Time
Turn in before you leave CP 8

Activity: “Wild Fire”
Check out with teacher

Checkpoint 9:
Question Packet: “Who Wants a Million Doll-Hairs?”
Record Team and Pick-up Time
Turn in when you arrive at CP 12

Checkpoint 10:
Question Packet: “Those Dam Rivers”
Record Team and Pick-up Time
Turn in when you arrive at CP 12

Checkpoint 11:
Species’ Instructions:
Send 2 people from your team to West Bonus (15 minutes credited to your score). These 2 people will meet the team at CP 12. Team can continue activities without them until they rejoin at CP 12.

Bonus Question Packet: “It Must be the Water”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP 12

Question Packet: “Interpretive Signs”
Record Team and Pick-up Time
Turn in when you arrive at CP 12

Checkpoint 12:
Check in with teacher
Turn in Questions from CP 9, 10, 11

Question Packet: “Chemistry Corner”
Record Team and Pick-up Time
Turn in before you leave CP 12

Question Packet: “Name that Quote”
Record Team and Pick-up Time
Turn in before you leave CP 12

Activity: “Voyageur Canoe Rendezvous”
Check out with teacher (Those at west Bonus MUST be back)
This is the end of your race- make sure you check out so your final time is recorded

****Stay tuned for post-race activities****
SES ADVENTURE CHALLENGE

Itinerary

Team B- Green Course.
Course Start: Holland Lake

Checkpoint A:
Question Packet: “It’s Elementary”
Record Team and Pick-up Time
Turn in when you arrive at CP B

Checkpoint B:
Check in with teacher
Turn in Questions from CP A

Question Packet: “National Parks”
Record Team and Pick-up Time
Turn in before you leave CP B

Activity: “Wild Fire”
Check out with teacher

Checkpoint C:
Question Packet: “Who Wants a Million Doll-Hairs?”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint D:
Question Packet: “Those Dam Rivers”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint E:
Special Instructions:
Send 2 people from your team to West Bonus (15 minutes credited to your score).
These 2 people will meet the team at CP F- TEAM CAN CONTINUE ACTIVITIES
WITHOUT THEM UNTIL THEY REJOIN AT CP F.

Bonus Question Packet: “It Must be the Water”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP F

Question Packet: “Interpretive Signs”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint F:
Check in with teacher
Turn in Questions from CP C,D,E

Question Packet: “Chemistry Corner”
Record Team and Pick-up Time
Turn in before you leave CP F

Question Packet: “Name that Quote”
Record Team and Pick-up Time
Turn in before you leave CP F

Activity: “Voyageur Canoe Rendezvous”
Check out with teacher (Those at west Bonus MUST be back before you leave CP F)
Checkpoint G:

Question Packet: “Multiple Meaning”
Record Team and Pick-up Time
Turn in when you arrive at CP I

Checkpoint H:

Question Packet: “Environmental”
Record Team and Pick-up Time
Turn in when you arrive at CP I

Checkpoint I:

Check in with teacher
Turn in Questions from CP G,H

Question Packet: “French/Spanish Challenge”
Record Team and Pick-up Time
Turn in before you leave CP I

Question Packet: “RU Renewable”
Record Team and Pick-up Time
Turn in before you leave CP I

Activity: “Who Let the Dogs Out?”

Check out with teacher

Checkpoint J:

Question Packet: “Bolsoni Quiz”
Record Team and Pick-up Time
Turn in when you arrive at CP L

Checkpoint K:

Special Instructions:
Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
These 2 people will meet the team at CP L- TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP L.

Bonus Question Packet: “Animal Planet”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP L

Question Packet: “People’s Choice”
Record Team and Pick-up Time
Turn in when you arrive at CP L

Checkpoint L:

Check in with teacher
Turn in Questions from CP J,K

Question Packet: “Counselor’s Corner”
Record Team and Pick-up Time
Turn in before you leave CP L

Activity: “Math Bibliography Jeopardy”
Activity: “How Tall is that Tree, Anyway?”
Activity: “Fecal Follies”

Check out with teacher (Those at East Bonus MUST be back.)

THIS IS THE END OF YOUR RACE- make sure you check out so your final time is recorded

****Stay tuned for post-race activities****
Gold Course (numbers) → Start/End at Jensen Lake
Green Course (letters) → Start/End at Holland Lake

- Respect the rights of other park visitors.
- Use trail for designated purposes only.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or other park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.
### 2001 ADVENTURE CHALLENGE

#### FINAL RESULTS

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→ No Team # on Answer Sheet - No credit points (Sorry!)

* Congratulations to all participants for a great event!!!*
SES ADVENTURE CHALLENGE
An Odyssey into Body, Mind and Team

OBJECTIVE
Complete a challenging course through Lebanon Hills Regional Park using teamwork, endurance and academic skills.

DESCRIPTION
20 teams (10 students on each team) will complete a 4-5 mile hike through Lebanon Hills Regional Park. There will be a series of checkpoints (12 total, plus two bonus checkpoints). Checkpoints must be completed in order. **Teams must arrive at each checkpoint together and leave each checkpoint together.** (This means all team members must touch each checkpoint post simultaneously.)

This is not just a hike---Each checkpoint will have at least one set of questions and/or an activity for the team to complete. Performance will be measured by a simple formula: each question/activity will be worth a certain number of points, and each point obtained will reduce your total time by **30 seconds.**

INSTRUCTIONS

<table>
<thead>
<tr>
<th>Gold Course</th>
<th>Starts and ends at Jensen Lake picnic shelter. Passes by Holland Lake --- follow the NUMBERS on map.</th>
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<tbody>
<tr>
<td>Green Course</td>
<td>Starts and ends at Holland Lake picnic shelter. Passes by Jensen Lake --- follow the LETTERS on map.</td>
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</tbody>
</table>

- At each checkpoint, team must write their team number and the time on their question packet. (Packets will be found in a ziploc bag attached to checkpoint)
- Re-seal ziploc bags tightly in case of rain.
- Each question packet will specify where it is to be handed in (usually to a teacher at a future checkpoint).
- If there is an activity, it will be explained by a staff member at the checkpoint.
- Follow all instructions at each checkpoint!

RULES

1. Stay on HIKING trails --- Absolutely NO using horse trails.
2. No collaborating with other teams to complete question packets.
3. Although many staff and alumni will be present throughout the course, completion of group initiatives will be based on honor code. Please respect the SES Adventure Challenge and the other teams by completing all instructions given.
4. There will be a 20 minute time penalty for any missed checkpoint (except for bonus checkpoints).
5. All teams must be at their respective start/finish area by 1:30 pm.

SAFETY

- There will be water/bathrooms at CP 6/L and 12/F.
- In case of injury, send 2 runners to CP 6/L or 12/F for staff assistance.
- In the event of lighting storm, find nearest shelter if possible and stay put.
EQUIPMENT
Each person must have the following while on trail:
- Small backpack or fanny pack
- Water bottle (full)
- Raingear
- Trail snacks (granola bars, snickers, etc.)
- Comfortable shoes (running or hiking)
- Enough layers to keep you warm in any weather

Your clothes will get dirty --- dress appropriately.

Each team must have the following while on trail:
- Watches (3)
- Pens (1 each)
- Trail maps (3)
- Itinerary (3)
- Copy of rules (this form) (3)
- Scientific calculators (3)
- Periodic table of elements (2)

Each person should have the following at the start/finish area:
- Lunch
- Extra set of dry clothes
- Change of socks
- Change of shoes

SCHEDULE
7:35-7:50  Gather as teams. Check out maps and itinerary. Attendance.
7:50-8:10  Pre-Race meeting
8:10-8:30  Transport to Jensen/Holland Lake (BUS)
8:40  Race start. This will be staggered start--- be ready 5-10 minutes before your start time so you may benefit from last minute reminders/instructions.

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<th>Green Teams (Holland)</th>
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Post Race Activities (TBA)
Return to SES at 1:40 pm

WORDS TO THE WISE
- Plan for a 3 to 4 hour Adventure Challenge
- Eat well and drink well before and during Adventure Challenge
- Remember the 6 P's of adventure challenges
SES ADVENTURE CHALLENGE
Itinerary
Team A - Gold Course.
Course Start: Jensen Lake

Checkpoint 1:
Question Packet: “Multiple Meaning”
Record Team and Pick-up Time
Turn in when you arrive at CP 3

Checkpoint 2:
Question Packet: “Environmental”
Record Team and Pick-up Time
Turn in when you arrive at CP 3

Checkpoint 3:
Check in with teacher
Turn in Questions from CP 1,2

Question Packet: “French/Spanish Challenge”
Record Team and Pick-up Time
Turn in before you leave CP 3

Question Packet: “RU Renewable”
Record Team and Pick-up Time
Turn in before you leave CP 3

Activity: “Trick or Tweet”
Check out with teacher

Checkpoint 4:
Question Packet: “Bolsoni Quiz”
Record Team and Pick-up Time
Turn in when you arrive at CP 6

Checkpoint 5:
Special Instructions:
Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
These 2 people will meet the team at CP 6- TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP 6.

Bonus Question Packet: “Animal Planet”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP 6

Question Packet: “People’s Choice”
Record Team and Pick-up Time
Turn in when you arrive at CP 6

Checkpoint 6:
Check in with teacher
Turn in Questions from CP 4,5

Question Packet: “Counselor’s Corner”
Record Team and Pick-up Time
Turn in before you leave CP 6

Activity: “Amazing”
Activity: “How Tall is that Tree, Anyway?”
Activity: “Skullduggery”
Check out with teacher (Those at East Bonus MUST be back before you leave CP6)
Checkpoint 7:
**Question Packet: “It’s Elementary”**  
Record Team and Pick-up Time  
Turn in when you arrive at CP 8

Checkpoint 8:
Check in with teacher  
Turn in Questions from CP 7  
**Question Packet: “National Parks”**  
Record Team and Pick-up Time  
Turn in before you leave CP 8  
**Activity: “Wild Fire”**  
Check out with teacher

Checkpoint 9:
**Question Packet: “Who Wants a Million Doll-Hairs?”**  
Record Team and Pick-up Time  
Turn in when you arrive at CP 12

Checkpoint 10
**Question Packet: “Those Dam Rivers”**  
Record Team and Pick-up Time  
Turn in when you arrive at CP 12

Checkpoint 11:
**Special Instructions:**  
Send 2 people from your team to West Bonus (15 minutes credited to your score).  
These 2 people will meet the team at CP 12 - TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP 12.  
**Bonus Question Packet: “It Must be the Water”**  
Record Team member names, team number and Pick-up Time  
Turn in before you leave CP 12

**Question Packet: “Interpretive Signs”**  
Record Team and Pick-up Time  
Turn in when you arrive at CP 12

Checkpoint 12:
Check in with teacher  
Turn in Questions from CP 9,10,11  
**Question Packet: “Chemistry Corner”**  
Record Team and Pick-up Time  
Turn in before you leave CP 12  
**Question Packet: “Name that Quote”**  
Record Team and Pick-up Time  
Turn in before you leave CP 12  
**Activity: “Voyageur Canoe Rendezvous”**  
Check out with teacher (Those at west Bonus MUST be back)  
THIS IS THE END OF YOUR RACE - make sure you check out so your final time is recorded

****Stay tuned for post-race activities****
Checkpoint A:
Question Packet: “It’s Elementary”
Record Team and Pick-up Time
Turn in when you arrive at CP B

Checkpoint B:
Check in with teacher
Turn in Questions from CP A

Question Packet: “National Parks”
Record Team and Pick-up Time
Turn in before you leave CP B

Activity: “Wild Fire”
Check out with teacher

Checkpoint C:
Question Packet: “Who Wants a Million Doll-Hairs?”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint D
Question Packet: “Those Dam Rivers”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint E:
Special Instructions:
Send 2 people from your team to West Bonus (15 minutes credited to your score).
These 2 people will meet the team at CP F - TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP F.

Bonus Question Packet: “It Must be the Water”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP F

Question Packet: “Interprettive Signs”
Record Team and Pick-up Time
Turn in when you arrive at CP F

Checkpoint F:
Check in with teacher
Turn in Questions from CP C, D, E

Question Packet: “Chemistry Corner”
Record Team and Pick-up Time
Turn in before you leave CP F

Question Packet: “Name that Quote”
Record Team and Pick-up Time
Turn in before you leave CP F

Activity: “Voyageur Canoe Rendezvous”
Check out with teacher (Those at west Bonus MUST be back before you leave CP F)
Checkpoint G:
Question Packet: “Multiple Meaning”
Record Team and Pick-up Time
Turn in when you arrive at CP I

Checkpoint H:
Question Packet: “Environmental”
Record Team and Pick-up Time
Turn in when you arrive at CP I

Checkpoint I:
Check in with teacher
Turn in Questions from CP G,H

Question Packet: “French/Spanish Challenge”
Record Team and Pick-up Time
Turn in before you leave CP I

Question Packet: “RU Renewable”
Record Team and Pick-up Time
Turn in before you leave CP I

Activity: “Trick or Tweet?”
Check out with teacher

Checkpoint J:
Question Packet: “Bolsoni Quiz”
Record Team and Pick-up Time
Turn in when you arrive at CP L

Checkpoint K:
Special Instructions:
Send 2 people from your team to East Bonus (15 minutes credited to your score plus points for questions).
These 2 people will meet the team at CP L. TEAM CAN CONTINUE ACTIVITIES WITHOUT THEM UNTIL THEY REJOIN AT CP L.
Bonus Question Packet: “Animal Planet”
Record Team member names, team number and Pick-up Time
Turn in before you leave CP L

Question Packet: “People’s Choice”
Record Team and Pick-up Time
Turn in when you arrive at CP L

Checkpoint L:
Check in with teacher
Turn in Questions from CP J,K

Question Packet: “Counselor’s Corner”
Record Team and Pick-up Time
Turn in before you leave CP L

Activity: “Amazing”
Activity: “How Tall is that Tree, Anyway?”
Activity: “Skullduggery”
Check out with teacher (Those at East Bonus MUST be back.)

THIS IS THE END OF YOUR RACE- make sure you check out so your final time is recorded

****Stay tuned for post-race activities****
Lebanon Hills Regional Park
Summer Trails

- Respect the rights of other park visitors.
- Use trail for designated purposes only.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or other park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.
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Credit Minutes: 149, 150, 102, 116, 159, 132, 145, 117, 99, 134, 149, 90, 148, 129, 125, 144, 88, 155, 111
Bonus Minutes: 30, 30, -30, 15, 30, 30, 15, 15, 15, 15, 10, 15, 15, 30, 15, -30, 15

→ No Team # on Answer Sheet - No Credit Points (Sorry!)

→ Extra Bonus points given to some groups at Voyager Canoe rendezvous to compensate for "wait" time

* Congrats to all participants for a great event!!!
APPENDIX B

Question Packets

All question packets for the SES adventure challenge on June 6, 2000 appear in this appendix. Question packets that were adjusted or added for the 2001 and 2002 SES adventure challenges are labeled in the upper left-hand corner of each question packet.
MULTIPLE MEANING

Directions: Use the clues to identify things you may encounter during your Adventure Challenge.

1. Only eastern redbird with a crest
   Position of rank in the Catholic Church

2. Animal that burrows in the ground
   602,000,000,000,000,000,000,000,000,000

3. Structure over water connecting 2 pieces of land
   Card game for 4 with bids, trump and slams

4. Small amount of solute dissolved in a lake
   Largest Minnesota city on Lake Superior

5. Part of syrup producing tree in which photosynthesis occurs
   Appears on Canadian flag

6. Used to provide information for park patrons
   Opposite over hypotenuse

7. What fisherman do off the dock at Holland Lake
   Recent fashion piece of most blue office teachers

8. What ppm, ppb, and molarity measure
   What it takes to catch a frisbee in a crowd

9. An edible pan fish
   How your body may feel at the end of this adventure

10. Once grown in this area to feed cows
    Rolling Stones song: "______ you, get off of my cloud"

11. Wisconsin state bird
    Batman's sidekick

12. Black bird that enjoys road kill
    What Kilgore ate after playing "The Staff Infection"

* Turn in when you arrive at CP 3, H
MULTIPLE MEANING

Directions: Use the clues to identify things you may encounter during your Adventure Challenge.

1. Only eastern redbird with a crest
   Position of rank in the Catholic Church

2. Animal that burrows in the ground
   602,000,000,000,000,000,000

3. Structure over water connecting 2 pieces of land
   Card game for 4 with bids, trump and slams

4. Small amount of solute dissolved in a lake
   Largest Minnesota city on Lake Superior

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   What it takes to catch a frisbee in a crowd

8. An edible pan fish
   How your body may feel at the end of this adventure

9. Once grown in this area to feed cows
   Rolling Stones song: “_____ you, get off of my cloud”

10. Wisconsin state bird
    Batman’s sidekick

* Turn in when you arrive at CP 3, I
1. The nutrient that usually limits plant growth in Minnesota lakes is...
   a) nitrogen  b) potassium  c) silicon  d) phosphorus

2. Many of the physical, biological and chemical characteristics of surface water are dependent on...
   a) temperature  b) pH  c) dissolved oxygen  d) nitrates

3. The place where an organism lives is its...
   a) niche  b) community  c) ecosystem  d) habitat  e) biome

4. The primary factor determining the types and abundance of life in a particular land area is...
   a) longitude  b) climate  c) weather  d) soil  e) oxygen

5. The amount of energy transferred from an organism on one trophic level to the next trophic level is about ___%.
   a) 1  b) 10  c) 25  d) 33  e) 50

6. Grasslands can be destroyed by...
   a) drought  b) fire  c) mowing  d) plowing  e) all of the above

7. Disturbances which can alter the natural succession of an area include...
   a) fire  b) fire suppression  c) deforestation for agriculture and tree farms
   d) a & c only  e) all of the above

8. Water covers about ___% of the Earth's surface.
   a) 56  b) 62  c) 71  d) 79  e) 83

9. The United States has already lost about ___ of the original topsoil of the cropland in use today.
   a) one-tenth  b) one-sixth  c) one-fifth  d) one-third  e) one-half

10. There are approximately ____ listed endangered species in the United States.
     a) 1000  b) 750  c) 500  d) 100  e) 50

* Turn in when you arrive at CP 3, H
**MEXICO**

1. What is the capital of Mexico?
   a. Cancun
   b. Mexico City
   c. Acapulco
   d. St. Paul

2. What is the most popular sport in Mexico?
   a. soccer
   b. bullfighting
   c. fishing
   d. jai alai

3. What country is on the southern border of Mexico?
   a. Cuba
   b. Panama
   c. Costa Rica
   d. Belize

4. What year were the summer olympics held in Mexico City?
   a. 1964
   b. 1968
   c. 1972
   d. 1976

5. What does the white stripe in the Mexican flag stand for?
   a. liberty
   b. union
   c. religion
   d. tequila

**FRANCE**

1. What is the capital of France?
   a. Cannes
   b. Paris
   c. Montreal
   d. Toulouse

2. What is the world famous university in Paris called?
   a. PSU
   b. Notre Dame
   c. Louvre
   d. Sorbonne

3. Where did Joan of Arc die?
   a. Rouen
   b. Paris
   c. Cannes
   d. in the bathroom

4. Who was Louis XIII married to?
   a. Diana of Wales
   b. Marie Antoinette
   c. Anne of Austria
   d. Kelly

5. Which King Louis was known as the sun king?
   a. XII
   b. XIII
   c. XIV
   d. XVI
SPAIN

1. What is the capital of Spain?
   a. Barcelona
   b. Lisbon
   c. San Francisco
   d. Madrid

2. The colors of the Spanish flag are red and.......?
   a. green
   b. blue
   c. gold
   d. rose

3. Who is known as the national hero of Spain?
   a. Picasso
   b. El Cid
   c. Dali
   d. Antonio Banderas

4. What is the name of the national museum in Madrid?
   a. Louvre
   b. Prado
   c. Museum of Spain
   d. Walker

5. What year was Spain admitted to the United Nations?
   a. 1955
   b. 1965
   c. 1975
   d. 1985

* Turn in before you leave CP 3, H
1. Which 2 major rivers are located in the Fertile Crescent?

2. In which direction and from what body of water does the Nile River flow?

3. What well-known Greek philosopher was famous for his inquiry or question-based teaching methods?

4. Provide 3 "catch phrases" or words to describe the Romantic Movement.

5. Which era was also known as the "Age of Reason"?

6. Name all 4 oceans in order of size (largest to smallest).

7. What is the largest lake in North America? Bonus: What is the only lake in the world that is larger?

8. Define "watershed."

9. Who wrote The Complete Angler?
   
   Hint 1: Book referred to in river why?
   Hint 2: Also the name of a conservation organization.

10. What environmental organization did David Brower start?

* Turn in when you arrive at CP 6, K
**PEOPLE'S CHOICE**

Fox E. Flinn
Ernest Rutherford
Paracelsus
Marie Curie

Amedeo Avogadro
Aristotle
J. J. Thomson
Antoine Lavoisier

Robert Boyle
Galileo
Enrico Fermi
Dmitri Mendeleev

**Directions:** Match the description or quote for each number with one of the scientists from the list above. Each scientist will be used once and only once. Clearly write the name of the scientist to the left of or beneath each question.

1. “Equal volumes of gases at the same temperature and pressure contain the same number of molecules.”

2. Grandfather of atomic structure. Discovered the electron.

3. Russian chemist responsible for organizing the periodic table the way it is today.

4. “It was as credible as if you fired a 15 inch shell at a piece of tissue paper and it came back and hit you.”

5. “Neverless, it (the earth) does move.”

6. Highly involved with the Manhattan Project. Nicknamed “the pope”.

7. Discovered radium and polonium.

8. “What makes a man ill may also cure him.”

9. “Pressure varies inversely with volume at constant temperature.”

10. Described the universe as having 4 elements (earth, fire, air and water).

11. Father of modern chemistry. Lost his head during the French Revolution.

12. “Heated test tubes are like loaded guns. Never point them at anyone, including yourself. They might go off.”

* Turn in when you arrive at CP 6, K

* Reminder: Send 2 people (1 male, 1 female) to East Bonus
  These 2 people will meet up with their team at CP 6, K
"Who am I?": You will be given 4 clues and you are to guess what the animals are (All are part of the SES animal collection located in the zoology/botany room.)

1. a) I am an albino
   b) I sleep a lot
   c) My endangered relative is “black-footed”
   d) I have been used to hunt rabbits

Who am I? ________________________________

2. a) I store fat in my tail like a camel stores fat in its hump
   b) I eat insects
   c) I am yellow and spotted like a large cat
   d) I am a common reptile pet

Who am I? ________________________________

3. a) Secretions from my skin are used in medicine to help lower human blood pressure
   b) I live in the trees
   c) I have “sticky” toe pads to help me climb
   d) My skin feels slimy to the touch

Who am I? ________________________________

4. a) I live in South American rainforests
   b) I kill my prey with a fatal “hug”
   c) My eyes do not hypnotize
   d) My skin is almost 10 feet long after it is shed

Who am I? ________________________________

5. a) I follow my mother everywhere
   b) I am covered in down
   c) When we’re older, my brother won’t “quack” but my sister will
   d) I am commonly found on birch pond and other small lakes

Who am I? ________________________________
Whatzit?

6. What is the largest bone in the body?
   a) humerus
   b) skull
   c) femur
   d) collar bone

7. What will a rabbit do to alarm others of danger?
   a) "bark" like a small dog
   b) stand on its hind legs
   c) thump its hind feet on the ground
   d) nothing...rabbits are fearless

8. Which of the following fish changes color, acting as a barometer of the weather. (senses high and low pressure)
   a) sunfish
   b) walleye
   c) small mouth bass
   d) black crappie

9. What hatches every spring in the Animal Care (zoo/bot) room?
   a) tree frogs
   b) leopard geckos
   c) rose-hair tarantulas
   d) mallard ducklings

10. Which of the following snakes could be found as naturally occurring in this park?
    a) boa constrictor
    b) kingsnake
    c) bullsnake
    d) coral snake

11. What should you do if you find a young bird on the ground that would otherwise obviously be in the nest?
    a) run away
    b) place it back in the nest
    c) yell for help
    d) fire up the BBQ

* Turn in before you leave  CP 6, K
Hey Gang, How is it Going?

I hope you guys are having fun hiking all of those miles. I'm having a great time here in the Counseling Office. On my second cup of coffee, very relaxing here at my desk. Anyway, here are some questions that you must answer correctly if you want any kind of a chance of getting your first choice for intensive theme next year (just kidding).

1). Which of the following states were not visited by Lewis and Clark when they explored the West in 1804-06? (Circle)
   Montana, Idaho, Oregon, California, South Dakota, North Dakota.

2). Which of the following is not one of the home high schools in District 196 from which students attend SES? (Circle)
   Eastview, Rosemount, Moscow East, Eagan, Apple Valley

3). Who is the only guitarist not a member of the Beatles to play on a Beatles album? (Circle)
   Jimi Hendrix, Keith Richards, Eric Clapton, Carlos Santana, Spirow Agnew, George Harrison

4). Briefly write down three examples of leadership (within your group) that have helped the performance of your group thus far during the adventure challenge. Be specific.

5). Write a few sentences why "compassion" is an important part of leadership.

6). Name the college where Shaquille O'Neal played college basketball at: (Circle)

7). Which River runs the furthest North in the state of Montana?
   Yellowstone, Missouri, Big Horn, Musselshell

* Turn in before you leave CP 6, K
IT'S ELEMENTARY

Directions: Use the clues to identify the correct element for each number.

1. Lightest noble gas
   What doctors do for their patients

2. Inert gas found in light bulbs
   After you have left the scene, you ...

3. Found in cereal and $ bills
   Eliminates wrinkles in fabrics

4. Poison that makes for white cheeks
   Beautiful lakes and hills ...

5. Main element in air
   Soldier from Troy who fights after dark

6. Transition metal
   What the Lone Ranger did to his horse

7. Element discovered by Marie Curie
   What police do to crack houses

8. Lanthanide series element
   How to catch a lone steer

9. Computer microchips
   A comical prisoner

10. Fueled a DeLorean back to the future
    Mickey's dog

11. Essential for sea squirts
    Woman famous for turning letters

12. Component of table salt
    What blondes are known for being

13. Metal used by Rutherford in his foil experiment
    Color of James Bond’s favorite digit

14. Turns blue in the presence of starch
    When I eat ...

15. Inside of pennies after 1982
    What torpedoed ships do
16. Possibly in "big" Mississippi River fish
Mythical messenger

17. Used in catalytic converters
Big English theater

18. Carbide stabilizer
Why she wears "My Sin" perfume

19. Found in organic substances
"Southern" for storage place for cars

20. Main element in the universe
Watered down martini

*Please note that 21-25 are not elements, but contain elements.

21. Leads to eutrophication of lakes
Cheaper than day rates

22. Don't drink it in Guadalajara
HIJLMNO

23. Lowers the activation energy of a chem reaction
Person who raises cows

24. Combines with barium to form a precipitate
Mr. and Mrs. Crow

25. Important part of a balanced diet
In favor of young people

* Turn in when you arrive at CP 8, B
NAME THAT QUOTE
FROM JUNIOR YEAR

Directions: Write the author and the title of the book below the quote. Each counts one point. 30 possible points for your team.

When I was standing in quiet, shady water, I half noticed that no stone flies were hatching, and I should have thought longer about what I saw but instead I found myself thinking about character...I was thinking of how, when things got tough, my brother looked to himself to get himself out of trouble...I pursued this line of thought back to the Greeks who believed that not wanting any help might even get you killed.

Our ability to perceive quality in nature begins, as in art with the pretty. It expands through successive stages of the beautiful to values as yet uncaptured by language. The quality of cranes lies, I think, in this higher gamut, as yet beyond the reach of words.

Let's use our environment, nature changes the environment every day of our lives--why shouldn't we change it?

I've come to suggest something altogether different and better for us both. A rabbit has two ears; a rabbit has two eyes, two nostrils. Our two warrens ought to be like that. They ought to be together--not fighting.

I had a contempt for the uses of modern natural philosophy. It was very different when the masters of science sought immortality and power; such views, although futile, were grand; but now the scene was changed. The ambition of the inquirer seemed to limit itself to the annihilation of those visions on which my interest in science was chiefly founded. I was required to exchange chimeras of boundless grandeur for realities of little worth.

Every morning was a cheerful invitation to make my life of equal simplicity, and I may say innocence, with Nature herself.

There must be a very remarkable druid at Hammond, Inc., in New York, for Hammond has published a large map that seems particularly notable for what can only be a deliberate omission. It happens that the longest undeveloped beach on the Atlantic coast of the United States forms the eastern shoreline of a very large island, no part of which appears on this map--Hammond's Superior Map of the United States, four feet wide, one inch to seventy miles--although the map shows clearly such islands as Ocracoke, Hatteras, Assateaque, Long Beach, and Manhattan, all of which are smaller. The name of the missing island is Cumberland.
All through the drought the mass of seeds on the island went down, down, down. The average size and hardness of the remaining seeds went up, up, up. The total number of finches on the island fell with the food supply: 1400 in March 1976, 1300 in January 1977, fewer than 300 in December.

Black bears rarely attack. But here's the thing. Sometimes they do.

A lake is the landscape's most beautiful and expressive feature. It is earth's eye; looking into which the beholder measures the depths of his own nature.

I looked around, and I don't know why, but I assure you that never, never before did this land, this river, this jungle, the very arch of this blazing sky, appear to me so hopeless and so dark so impenetrable to human thought, so pitless to human weakness.

For thousands of years, people have considered this amazing substance magical and holy.

My protectors had departed, and had broken the only link that held me to the world. For the first time the feelings of revenge and hatred filled my bosom, and I did not strive to control them; but allowing myself to be borne away by the stream, I bent my mind towards injury or death.

Because of fishing I started school a year late; because of fishing I failed fifth grade; because of fishing I was considered a kind of mild-mannered freak by my schoolmates; because of fishing I grew up osprey-silent and trout-shy and developed early an ability to slide through the Public School System as river water slides by the logjams, rockslides and dams that bar its seaward journey.

Rich plant life naturally brings rich animal life. The Smokies are home to 67 varieties of mammal, over 200 types of bird and eighty species of reptile and amphibian, all larger numbers than those found in comparable-sized areas almost anywhere in the temperate world.

* Turn in before you leave CP 8, 8
NAME THAT QUOTE FROM JUNIOR YEAR

Directions: Earn two points for writing the correct title and one point for the correct author.

1. When I was standing in quiet, shady water, I half noticed that no stone flies were hatching, and I should have thought longer about what I saw but instead I found myself thinking about character...I was thinking of how, when things got tough, my brother looked to himself to get himself out of trouble...I pursued this line of thought back to the Greeks who believed that not wanting any help might even get you killed.

2. Our life is frittered away by detail. An honest man has hardly any need to count more than his ten fingers, or in extreme cases he may add his ten toes, and lump the rest. Simplicity, simplicity, simplicity!

3. I had contempt for the uses of modern natural philosophy. It was very different when the masters of science sought immortality and power; such views, although futile, were grand; but now the scene was changed. The ambition of the inquirer seemed to limit itself to the annihilation of those visions on which my interest in science was chiefly founded. I was required to exchange chimeras of boundless grandeur for realities of little worth.

4. You have to use these things when you have them. You have to know where they are, and use them. People, in the future, will go for the copper here.

5. The highest function of ecology is understanding consequences.

6. There must be a very remarkable druid at Hammond, Inc., in New York, for Hammond has published a large map that seems particularly notable for what can only be a deliberate omission. It happens that the longest undeveloped beach on the Atlantic coast of the United States forms the eastern shoreline of a very large island, no part of which appears on this map--Hammond’s Superior Map of the United States, four feet wide, one inch to seventy miles--although the map shows clearly such islands as Ocracoke, Hatteras, Assateaque, Long Beach and Manhattan, all of which are smaller. The name of the missing island is Cumberland.

7. There is as yet no ethic dealing with man’s relation to land and to the animals and plants which grow upon it. Land, like Odysseus’ slave-girls is still property.

8. All through the drought the mass of seeds on the island went down, down, down. The average size and hardness of the remaining seeds went up, up, up. The total number of finches on the island fell with the food supply: 1400 in March 1976, 1300 in January 1977, fewer than 300 in December.
9 Black bears rarely attack. But here’s the thing. Sometimes they do.

10 For thousands of years, people have considered this amazing substance magical and holy.

11 My protectors had departed, and had broken the only link that held me to the world. For the first time the feelings of revenge and hatred filled my bosom, and I did not strive to control them; but allowing myself to be borne away by the stream, I bent my mind towards injury or death.

12 A man is rich in proportion to the number of things which he can afford to let alone.

13 Because of fishing I started school a year late; because of fishing I failed fifth grade; because of fishing I was considered a kind of mild-mannered freak by my schoolmates; because of fishing I grew up osprey-silent and trout-shy and developed an ability to slide through the Public School System as river water slides by the logjams, rockslides and dams that bar its seaward journey.

14 "If we can get three per cent of the green plant element on Arrakis involved in forming carbon compounds as foodstuffs, we’ve started the cyclic system."

15 The problem is that man’s conquest of the world has itself devastated the world.

* Turn in before you leave CP 12, F
NAME THAT QUOTE FROM JUNIOR YEAR

Directions: Earn two points for writing the correct title and one point for the correct author.

1. When I was standing in quiet, shady water, I half noticed that no stone flies were hatching, and I should have thought longer about what I saw but instead I found myself thinking about character...I was thinking of how, when things got tough, my brother looked to himself to get himself out of trouble...I pursued this line of thought back to the Greeks who believed that not wanting any help might even get you killed.

2. Some days the clouds rise up from the water like breath or ghosts, and from the trees you can hear the bird that talks like an old woman. Other days the clouds look like a river flowing from a valley of sky. But today, after the storm, the clouds are low over water and land. They are ashamed of what sky has done and they try to hide the storm's damage from our eyes.

3. I had contempt for the uses of modern natural philosophy. It was very different when the masters of science sought immortality and power; such views, although futile, were grand; but now the scene was changed. The ambition of the inquirer seemed to limit itself to the annihilation of those visions on which my interest in science was chiefly founded. I was required to exchange chimeras of boundless grandeur for realities of little worth.

4. You have to use these things when you have them. You have to know where they are, and use them. People, in the future, will go for the copper here.

5. The highest function of ecology is understanding consequences.

6. There must be a very remarkable druid at Hammond, Inc., in New York, for Hammond has published a large map that seems particularly notable for what can only be a deliberate omission. It happens that the longest undeveloped beach on the Atlantic coast of the United States forms the eastern shoreline of a very large island, no part of which appears on this map--Hammond's Superior Map of the United States, four feet wide, one inch to seventy miles--although the map shows clearly such islands as Ocracoke, Hatteras, Assateaque, Long Beach and Manhattan, all of which are smaller. The name of the missing island is Cumberland.

7. There is as yet no ethic dealing with man's relation to land and to the animals and plants which grow upon it. Land, like Odysseus' slave-girls is still property.

8. All through the drought the mass of seeds on the island went down, down, down. The average size and hardness of the remaining seeds went up, up, up. The total number of finches on the island fell with the food supply: 1400 in March 1976, 1300 in January 1977, fewer than 300 in December.
We must learn to reawaken and keep ourselves awake, not by mechanical aids, but by an infinite expectation of the dawn, which does not forsake us in our soundest sleep.

For thousands of years, people have considered this amazing substance magical and holy.

My protectors had departed, and had broken the only link that held me to the world. For the first time the feelings of revenge and hatred filled my bosom, and I did not strive to control them; but allowing myself to be borne away by the stream, I bent my mind towards injury or death.

A man is rich in proportion to the number of things which he can afford to let alone.

Because of fishing I started school a year late; because of fishing I failed fifth grade; because of fishing I was considered a kind of mild-mannered freak by my schoolmates; because of fishing I grew up osprey-silent and trout-shy and developed an ability to slide through the Public School System as river water slides by the logjams, rockslides and dams that bar its seaward journey.

"If we can get three per cent of the green plant element on Arrakis involved in forming carbon compounds as foodstuffs, we've started the cyclic system."

The problem is that man's conquest of the world has itself devastated the world.

"Don't listen to this dreamer. All the laboratory evidence is against him."

And then appeared on the horizon a slowly moving mass like a boundless sheet of black cloud drifting towards Umoofia. Soon it covered half the sky, and the solid mass was now broken tiny eyes of light like shining star dust. It was a tremendous sight, full of power and beauty.

(he) knew that it was right to be masculine and to be violent. But somehow he still preferred the stories that his mother used to tell.

"The old doctor felt my pulse, evidently thinking of something else the while. 'Good, good for there,' he mumbled, and then with a certain eagerness asked me whether I would let him measure my head."

Then it is quiet. The cat looks back at us. It doesn't run. In the darkness its eyes shine and that is what I see. Eyes. It seems to look right through us. It sees through us. Then, at ease, as if certain we will follow, it moves slowly away. It is calling us forward.
CP 9, C

Who wants a million doll-hairs?

These questions allow you to gain some time credits. Answer these questions in order to get the credits indicated but any wrong answer will knock you down to the plateaus indicated. Plateau 1 is at question #5 and plateau 2 is at question #10. There are no lifelines, your group is on its own. Your guesses may take a toll on your possible credits.

$100
1. Which of these prefixes indicates the largest amount?
   a) micro
   b) mega
   c) kilo
   d) giga

$200
2. Brain many times uses science with a primary goal of
   a) teaching Pinky about life.
   b) freeing all lab animals.
   c) trying to take over the world.
   d) showing that the technical society is evil.

$300
3. To calculate your speed you need to know your
   a) acceleration
   b) distance and time.
   c) distance and mass.
   d) momentum and time.

$500
4. Which scientist had a manzana fall on his cabeza.
   a) Einstein
   b) Galileo
   c) Newton
   d) Darwin

$1000
5. A roller coaster works in part because at the top of the first climb you have a lot of
   a) Potential energy.
   b) Kinetic energy.
   c) Momentum.
   d) Anxiety.

$2000
6. Which of these people are not left-handed?
   a) Mr. Goodwin
   b) Mr. Nowicki
   c) Ms. Tunseth
   d) Ms. Lindell

$4000
7. A vector quantity has both magnitude and
   a) Time.
   b) amount.
   c) latitude.
   d) direction.
8. Which of these particles has the most mass?
   a) neutron
   b) electron
   c) positron
   d) strange quark

9. Which of these would a Continental Soldier most likely throw over his shoulder?
   a) a bayonet.
   b) his MRE.
   c) his ears.
   d) a grenade.

10. The scientist that first identified the pendulum as a useful device for accurately measuring time was
    a) Einstein
    b) Gell-Mann
    c) Galileo
    d) Aristotle

11. Who ran through the streets of Athens in the nude yelling eureka when he figured how to test to see if the King’s new crown was made of pure gold?
    a) Archimedes
    b) Ptolemae
    c) Pythagorean
    d) Zeno

12. In Gulliver’s travels to the floating island of Laputa, the island was powered by a prodigious
    a) beetle
    b) loadstone
    c) hydrogen gas generator
    d) propeller

13. Which of these might you observe as an electron jumps down to a lower energy level?
    a) a click
    b) a colored light
    c) a nuclear explosion
    d) an unusual smell

14. If you were near Emeril Lagasse when he went bam! You should
    a) Prepare for gangland warfare.
    b) Look for Barney Rubble.
    c) Praise the marble sculpture.
    d) Prepare for good food.

15. The space shuttle typically orbits above the surface of the earth at
    a) 200 miles.
    b) 2000 miles.
    c) 20,000 miles.
    d) 200,000 miles

Turn in when you arrive at CP 11, E
INTERPRETIVE SIGNS

Directions: On your way to the next checkpoint you should encounter 8 interpretive signs. These signs are numbered in reverse order for the direction that you are going. Identify each interpretive sign. Read each interpretive sign to fill in the appropriate missing information.

8. ______________________
Disease that has killed many of these in the past 50 years ______________________

7. ______________________
What causes this distortion to a tree ______________________

6. ______________________
What month are its leaves most brightly colored ______________________

5. ______________________
Shape of its ovate ______________________

4. ______________________
Type of habitat most frequently found in ______________________

3. ______________________
Genus ______________________

2. ______________________
Mature bark appears to be ______________________

1. ______________________
Type of moth known to attack it ______________________

* Turn in when you arrive at CP 11, E
* Reminder: Send 2 people (1 male, 1 female) to West Bonus
  These 2 people will meet up with their team at CP 11, E
Directions: Clearly answer the following questions.

1. Ice floats in a lake because its ________ as a solid is less than its ________ as a liquid. (Same answer for both blanks.)

2. What type of bonding in water accounts for its relatively high melting point and boiling point?

3. What property allows a water strider or a needle to float on top of water?

4. What property of water causes coastal climates to be relatively warm in the winter and cool in the summer?

5. Dissolving a solid in water makes an ____________ solution.

6. What isotope of water is used as a moderator in most nuclear reactors in Canada?

7. The majority of the earth's fresh water exists in the form of ____________.

8. The process in which organic matter accumulates in a body of water is called ____________.

9. The upper level of water in a stratified lake is called the ____________.

10. What circular device is used to measure water clarity?

11. What negative ion in limestone based lakes tends to neutralize acid rain?
12. What term is defined as "of, relating to, or living in still waters?"

13. What term is defined as "of, relating to, or living in flowing waters?"

14. Rainwater is: acidic basic neutral (Circle one.)

15. In 1998, Adam Sandlar played "The Waterboy." What was waterboy's name?

16. According to waterboy's mama, why are crocodiles so ornery?

* Turn in before you leave CP 11, E
CHEMISTRY CORNER

Directions: Most questions have something to do with chemistry. Clearly indicate the correct answer for each question.

1. An object weighs 850 grams in air. This same object weighs 650 grams when suspended in O’Brien Lake from a bridge. (Assume density of water in O’Brien Lake is 1.0 grams / milliliter)

A. Calculate the volume of the object. (include units)
B. Calculate the density of the object. (include units)

2. A 30.0 liter igloo cooler is filled with carbon dioxide (sublimated dry ice) at STP. What mass of carbon dioxide is present?

3. Dissolved oxygen in a lake will:
A. (increase or decrease) at a higher temperature. Circle one.
B. (increase or decrease) at a higher pressure. Circle one.

4. How many protons and electrons are in the following:
A. One phosphate ion _____ protons _____ electrons
B. One nitrate ion _____ protons _____ electrons
C. One oxygen molecule _____ protons _____ electrons

5. 5.0 liters of lake water was evaporated and found to contain 5.0 grams of NaCl. What was the concentration of NaCl in the lake water sample prior to evaporation?

6. Scientists estimate that a giant bone discovered near Jensen Lake came from a creature that has been dead for 4 half lives of carbon-14.
A. What fraction of the original amount of carbon-14 remains in the bone after this time?
B. How long has the creature been dead?
7. An HCl solution with a pH of 1.0 is how many times more concentrated than an HCl solution with a pH of 5.0?

8. Write a balanced chemical equation for the complete combustion of gasoline (C\textsubscript{8}H\textsubscript{n}).

9. 2 Bread + 3 Ham + 1 Cheese = 1 Sandwich

If a person has 150 Bread, 300 Ham and 100 Cheese:
A. How many sandwiches can be made?
B. What is the limiting reactant?
C. What 2 reactants are in excess and how much of each is left over?

10. List the following processes as endothermic or exothermic.
A. Lake water freezing
B. Lake ice melting
C. Lake water evaporating
D. Dew forming on plants

11. Throwing 1 pound of which of the following solids into Holland Lake would cause the most vigorous chemical reaction?

Sodium Magnesium Aluminum Copper (circle one)

What gas would be produced in the reaction?

12. Fill in each blank with the correct subatomic particle.
A. Electricity is the flow of ____________________
B. Acids donate ____________________
C. According to Big Bang Theory, the primordial atom was made up of ____________________

* Turn in before you leave CP 11, E
**CHEMISTRY CORNER**

**Directions:** Most questions have something to do with chemistry. Clearly indicate the correct answer for each question.

1. Dissolved oxygen in a lake will:
   A. (increase or decrease) at a higher temperature. Circle one.
   B. (increase or decrease) at a higher pressure. Circle one.

2. Scientists estimate that a giant bone discovered near Jensen Lake came from a creature that has been dead for 4 half lives of carbon-14.
   A. What fraction of the original amount of carbon-14 remains in the bone after this time?
   B. How long has the creature been dead?

3. An HCl solution with a pH of 1.0 is how many times more concentrated than an HCl solution with a pH of 5.0?

4. Write a balanced chemical equation for the complete combustion of gasoline (C<H<sub>18</sub>O<sub>12</sub>)

5. 2 Bread + 3 Ham + 1 Cheese = 1 Sandwich
   If a person has 150 Bread, 300 Ham and 100 Cheese:
   A. How many sandwiches can be made?
   B. What is the limiting reactant?
   C. What 2 reactants are in excess and how much of each is left over?
6. List the following processes as endothermic or exothermic.
   A. Lake water freezing
   B. Lake ice melting
   C. Lake water evaporating
   D. Dew forming on plants

7. a) Throwing 1 pound of which of the following solids into Holland Lake would cause the most vigorous chemical reaction?
   Sodium  Magnesium  Aluminum  Copper  (circle one)

   b) What gas would be produced in the reaction?

8. Fill in each blank with the correct subatomic particle.
   A. Electricity is the flow of ____________________.
   B. Acids donate ____________________.
   C. According to Big Bang Theory, the primordial atom was made up of ____________________.

* Turn in before you leave CP 12, F
**R-U Renewable?**

List 10 items that you are wearing or using that are made from renewable resources.
List 10 items you are wearing or using that are made from non-renewable resources.

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* Turn in before you leave CP 11, E
NATIONAL PARKS

Directions: Write the state that is the location for each of the following national parks.

1. Yellowstone
2. Everglades
3. Big Bend
4. Channel Islands
5. Redwood
6. Point Reyes
7. Badlands
8. Saguaro
9. Mount Rainier
10. Yosemite
11. Zion
12. Denali
13. Acadia
14. Carlsbad Caverns
15. Glacier
16. Kenai Fjords

BONUS: What is the only national park in Minnesota?
**NATIONAL PARKS**

**Directions:** Write the state that is the location for each of the following national parks.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Yellowstone</td>
</tr>
<tr>
<td>2.</td>
<td>Everglades</td>
</tr>
<tr>
<td>3.</td>
<td>Big Bend</td>
</tr>
<tr>
<td>4.</td>
<td>Channel Islands</td>
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<tr>
<td>5.</td>
<td>Grand Teton</td>
</tr>
<tr>
<td>6.</td>
<td>Death Valley</td>
</tr>
<tr>
<td>7.</td>
<td>Badlands</td>
</tr>
<tr>
<td>8.</td>
<td>Saguaro</td>
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<tr>
<td>9.</td>
<td>Mount Rainier</td>
</tr>
<tr>
<td>10.</td>
<td>Yosemite</td>
</tr>
<tr>
<td>11.</td>
<td>Zion</td>
</tr>
<tr>
<td>12.</td>
<td>Denali</td>
</tr>
<tr>
<td>13.</td>
<td>Acadia</td>
</tr>
<tr>
<td>14.</td>
<td>Biscayne</td>
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<tr>
<td>15.</td>
<td>Glacier</td>
</tr>
<tr>
<td>16.</td>
<td>Isle Royale</td>
</tr>
</tbody>
</table>

**BONUS:** What is the only national park in Minnesota?  

*Turn in before you leave CP 8, 8*
THOSE DAM RIVERS

Directions: Write the river on which and state in which the following dams are located.

1. Hoover Dam

2. Garrison Dam

3. Grand Coulee Dam

4. Glen Canyon Dam

5. Fort Peck Dam

6. Kingsley Dam

7. St. Anthony Dam

8. Aswan High Dam

(country)

* Turn in when you arrive at CP 12, F
APPENDIX C
Activities

Descriptions of all activities for the SES adventure challenges in 2000, 2001 and 2002 appear in this appendix. The year or years that a particular activity was a part of the SES adventure challenge is indicated. Most of the descriptions are the hard copies that were submitted to the adventure challenge committee by contributing staff.
Checkpoint activity ideas for the SES Adventure Challenge (2000)

**Habitat balance**

**Staff member needed**

**Question:**

What is the biggest threat to species endangerment and extinction? (habitat destruction)

**Activity:**

Inform students that they are an endangered animal (pick one: siberian tiger, black rhino, black-footed ferret, etc. or have the students name one and use it) and that their habitat is being destroyed. The students’ challenge is to balance everyone in the group on an overturned milk crate without touching the ground. (The milk crate is what’s left of their habitat...you get the picture.) Students have to balance for 10 seconds...have them count aloud together...in a foreign language for bonus points. :) (For safety reasons, no one can climb onto another’s shoulders and two students from the group should be spotters should anyone slip.) Points may be awarded for how many students can “fit into the habitat”...or just that they are able to complete it. (Note: another object or a circle of rope may be used to represent the habitat...it doesn’t need to be a milk crate.)

<table>
<thead>
<tr>
<th># of people</th>
<th># Points</th>
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<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
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<td>9</td>
<td>22</td>
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<tr>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>
The Penguins (2000)

Recall that potential energy is the energy something has do to its position and kinetic energy is the energy do to its movement.

Graph on the same axis of energy and time the changes of potential and kinetic energy of the penguins. Title, label the axis and components of your graph. Some estimation or interpolation may be needed but a ruler and stopwatch are available.

Excellent Job

Less than Excellent

Poor Job

Points awarded

Excellent

Less than Excellent

Poor Job

15

10

2

1. A counting frame, used to record numbers and to calculate. It has many different forms and has been used by many different cultures.

2. A famous Greek scholar, one of the greatest geometers and physicists of all time.

3. The English statistician and inventor envisioned the modern digit computing machine long before its time.

4. A type of numbering system that uses base 2 instead of base ten.

5. The two mathematicians involved in the big History of Calculus debate.

6. A theoretical physicist and a mathematical genius who revolutionized thinking about time, space, mass, light, motion, and gravitation.

7. A Dutch graphic artist was the first to depict animated figures that tessellate.

8. The formula developed by this man states the relationship between the number of vertices, edges, and faces in any simple polyhedron.

9. The name of the following sequence: 1, 1, 2, 3, 5, 8, 13, 21, 34

10. A one sided surface created by joining the two ends of a long strip of paper after making a half twist at one end.

11. The Scottish mathematician who invented logarithms.

12. This man has a triangular array of numbers with ones along two sides named after him.
Group # ____________  Total Points: __________

SES Eco-Challenge

#1 How Tall is That Tree? (2000 - 2002)
Use the tools provided to estimate the height, in feet, of the marked tree. Work must be shown for credit!! Draw a picture. (Tools are a clinometer and measuring tape.)

Answer (with correct units): ____________
Fecal Follies \((2000, 2001)\)
(How well do you know your sh##?)

10 different piles of animal scat are displayed on a picnic table. (Yes, they are rubber samples.) Students try to identify the animal responsible for producing each pile of scat.

3 points for each correct identification.
A member of your group has just broken his or her forearm. (This victim is the person whose birthday is closest to today.) Using the materials provided --- splint, bandage and make an appropriate sling for your victim. Your victim must wear this sling until the next checkpoint, where he or she is miraculously healed.
Voyagerizing Canoe Rendezvous

(2000-2002)

1. Start at Boat Launch
   - 3 teammates, 1 boat

2. Goal: Safely exchange trade items between voyagers & Ojibwe

   Process:
   - Load into a boat
   - Travel to Canada (s.e. side of Jensen)
   - Trade goods & hikers & paddlers switch
   - Return to landing by foot & boat

   Goods for trading

Bonus points for spirit, technique
Val’s Adventure Challenge Station \( \text{(Post-Race)} \)
\( \text{(2000-2002)} \)

Location: picnic shelter with tables

Activities: Giant Thank You Cards, Adventure Challenge Survival Necklace

Goal: none I can think of

Description:

*Giant Thank You Cards: Each team will be given poster board, tempera paint, brushes, water and towels, and markers. Each member will paint their hands or feet and press them on to the poster board, sign it, and write a thank you to someone at SES (adult or peer) who made a difference in their life this year.

*Adventure Challenge Survival Necklace: While waiting to do the card there will be string licorice, Fruit-e-o’s, lifesavers, etc. to string into a necklace for energy on the go.
Who Let the Dogs Out? (2001)

Students examine 12 pictures of dogs and identify the correct breed for each.
(1 point for each correct identification.)

Bonus points awarded for successful demonstration of angular momentum using a bicycle wheel and a lazy susan.

This station was designed in honor of Martin Buser --- 2001 SES graduation speaker and adventure challenge participant and 2002 Iditarod champion.

Objective: Students devise a catapult that will launch a wet sponge in order to put out the “wild fire”.

Materials: 
1 bungee cord
1 re-bar (u-shaped bar)
1 rope (3 feet)
1 rope (15 feet)
1 section bike inner tube (3ft)
2 wood stakes (3 feet)
1 2x4 wood beam
1 sponge
water
forest floor materials (sticks, rocks, etc.)

Scoring Criteria: Distance
Accuracy
Team Spirit
(Singing, esp. in unison, is encouraged)
Trick or Tweet (2002)

Students examine 10 pictures of regional birds and identify the correct species for each.
(1 point for each correct identification.)

Bonus points awarded for successful completion of the double-dutch jump rope trick.
#2 The Amazing Maze (2002)  5 pts each

Match the picture below with the box.

Box A: _______  Box B: _______  Box C: _______

Bonuses: Fill in the blank.

"__________ Bones." Hint: The man who is credited with inventing logs.

Description: Students are presented with 3 boxes (A, B, C). Each box is 6" x 6" x 24" and contains a maze pattern and a ball. Students can not see what is in the box, but can "maneuver it" to determine the maze structure inside the box. (5 points for each correctly identified maze.)
Skullduggery (2002)

5 different animal skulls are displayed on a picnic table. Students try to identify the animal that was the original owner of each skull.

6 points for each correct identification **without using** a list of animals to choose from.

4 points for each correct identification **using** a list of animals to choose from.

(Skulls presented were beaver, deer, timber wolf, coyote and raccoon.)
APPENDIX D
Correspondence with Staff

Copies of my key correspondence with the SES staff for the 2000 SES adventure challenge appear in this appendix. It is included to give you some of the details that need to be considered when constructing an adventure challenge.

It includes an event description, list of staff responsibilities, updates, more updates and written instructions for staff responsibilities on the day of the adventure challenge.
SES ADVENTURE CHALLENGE
An Odyssey into Body, Mind, and Team

DESCRIPTION
20 teams (10 students on each team) will complete a 5-6 mile hike through Lebanon Hills Regional Park. There will be a series of checkpoints (12 total). Each team must sign in (all members) and record time of arrival at each checkpoint. Checkpoints must be completed in order. Teams must travel together (unless specified otherwise). This is not just a hike --- checkpoints will involve question packets and/or activities. Participation and course completion will be emphasized, yet a time/point formula will be used to measure performance.

Gold Course
Starts and ends at Jensen Lake picnic shelter
Passes by Holland Lake --- follow the numbers on map

Green Course
Starts and ends at Holland Lake picnic shelter
Passes by Jensen Lake --- follow the letters on map

Note about checkpoints, questions, and activities
- Some checkpoints will be monitored by staff, others will not.
- Unmonitored checkpoints will most likely involve question packets, monitored checkpoints will most likely involve activities and/or questions packets.
- Some question packets will be turned in at the next monitored checkpoint. Some question packets will be turned in at the end of the event.

STAFF ASSISTANCE
- Complete written question packet, list of questions (random) and/or activity before staff meeting on 5/16. Please save since we may need to fine tune point values, etc.
- Set up and take down your activity at Lebanon Hills. (No need to do this for question packets)
- Monitor activities and course on the day of the event. 12-14 full staff would be great. Alumni help would reduce this number.
- Grade questions packets and activities.
- Other Responsibilities
  Equipment (check-out and check-in)
  Food
  Transportation
  Course set-up / take-down
  Awards
  Video, Pictures
  Recruit alumni
  Written instruction (map, pre-event, event day, staff)
  Team organization
- House (2 activities and 2 question packets for each house would be great)
- Major role in the “other responsibilities” category instead of making up questions should work out – please see me.

Sample activities may include identifying trees or putting on a skit. See sample question packets and list of questions (random).

*It should be a great day for both staff and students. Thanks for all your help.
SES ADVENTURE CHALLENGE UPDATE

**Question Packets**

<table>
<thead>
<tr>
<th>Completed</th>
<th>Pledged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Million Doll Hairs</td>
<td>House Quotes (Jean)</td>
</tr>
<tr>
<td>It’s Elementary</td>
<td>Animal Who Am I and More (Brad)</td>
</tr>
<tr>
<td>French / Spanish Challenge</td>
<td>Historical (Michael)</td>
</tr>
<tr>
<td>Chemistry Corner</td>
<td>Environmental (Roger)</td>
</tr>
<tr>
<td>People’s Choice</td>
<td>Bizarre (Nathan)</td>
</tr>
<tr>
<td>It Must Be the Water</td>
<td></td>
</tr>
<tr>
<td>Multiple Meaning</td>
<td></td>
</tr>
<tr>
<td>Interpretive Signs</td>
<td></td>
</tr>
</tbody>
</table>

**Possible Activities and Tentative Location**

- Math Bibliography Jeopardy (Holland)
- How Tall Is that Tree? (Holland)
- Voyageuring Canoe Rendezvous (Jensen)
- Caesar Crosses the Rhine (???)
- Giant Thank You (Paints) (Holland / Jensen) --- Post Race
- Survival Necklace (Holland / Jensen) --- Post Race
- The Penguin and Mystery Tube (???)
- Microsearch Scavenger Hunt (???)
- First Aid (???)
- Frisbee Toss (???)
- Endangered Animal Balance (???)
- Tree Identification (???)

Activities will take place at Jensen, Holland, Checkpoint #3, and checkpoint #8

**Important Info**

Plan to have at least 14 staff on location for the entire event.

- 4 at Jensen
- 4 at Holland
- 2 at checkpoint #3
- 2 at checkpoint #8
- 2 rovers

Help is needed in other areas as well (food, safety, awards, team organization, etc.)
Meyer, Steve

To: SES All Staff
Subject: RE: SES Adventure Challenge at Lebanon Hills (6/6/00)

Tentative Schedule for SES Adventure Challenge (Tuesday 6/6/00)

7:35-8:05 Pre-event meeting
8:05-8:25 Transport to Jensen Lake and Holland Lake
8:25-8:30 On-site meeting
8:30-9:00 Staggered start (10 teams at 3 minute intervals at each lake)
12:00-1:30 Course completion
1:40 Return to SES

* 20-30 minutes will be needed on Monday to introduce the event and allow teams to meet and gather materials. 10-20 minutes on Thursday for summary and awards would be great.

---

From: Meyer, Steve
Sent: Friday, May 12, 2000 3:18 PM
To: SES All Staff
Subject: SES Adventure Challenge at Lebanon Hills (6/6/00)

Please make sure to give me your written question packets or random question lists by Tuesday, May 16. For activities, please write out basic instructions and special requests (such as ideal location, length of activity, etc.). "The Putting it all Together Committee" (Craig and I so far) will be meeting at 2:30 pm on Thursday, May 18 to (you guessed it) put it all together. Please let us know if you are interested in joining us. Looking forward to seeing all your ideas and having a great event on June 6th. Thanks much.

Steve Meyer
To: SES All Staff
Subject: SES Adventure Challenge Follow-Up

Just a few reminders from the 5/16/00 staff meeting

Written question packets, random questions or activity summaries must be turned in to Craig or I by **2:30 pm on Thursday, May 18.** (We could especially use questions or shorter activities --- but any ideas are welcome.)

Not interested in putting together a question packet or activity? --- taking a lead on some other responsibilities would really help (awards, pictures, keyboarding, etc.). Please see me for details if interested.

"Putting it all together" committee meets at 2:30 pm on Thursday May, 18. We will start in the blue office. Please join us if you would like.

Keep the neat ideas coming. We are looking forward to a great event for both students and staff.

Steve Meyer
To: SES All Staff
Subject: Adventure Challenge Challenge

I will be gone in BWCA from 5/26-6/2 --- so here is my last chance to challenge you to get done what's needed to be done before the Adventure Challenge on Tues 6/6/00.

**Question Packets:** We will be doing really good if we get our "pledged packets".

<table>
<thead>
<tr>
<th>Pledged packets are:</th>
<th>House Quotes</th>
<th>Animal Planet</th>
<th>Historical</th>
<th>Environmental</th>
<th>Bizarre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Jean)</td>
<td>(Brad N)</td>
<td>(Michael)</td>
<td>(Roger)</td>
<td>(Nathan)</td>
</tr>
</tbody>
</table>

Thanks again for your pledge. We must have packets (don't worry about point values or answers) by Friday, June 2 --- but earlier than June 2 would be very helpful.

**Activities:** Here's an updated plan, but we still don't have a firm schedule because we haven't received confirmation for some proposals.

**For Sure**
- Math bibliography jeopardy
- How tall is that tree
- Computer
- Voyage canoe rendezvouz
- Giant thank you
- Survival necklace
- Penguin / Mystery Tube
- 1st Aid

<table>
<thead>
<tr>
<th>Holland</th>
<th>Anna, Amy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holland</td>
<td>Anna, Amy</td>
</tr>
<tr>
<td>Holland</td>
<td>Peter</td>
</tr>
<tr>
<td>Jensen</td>
<td>Kim</td>
</tr>
<tr>
<td>Holland/Jensen</td>
<td>Val</td>
</tr>
<tr>
<td>Holland/Jensen</td>
<td>Val</td>
</tr>
<tr>
<td>Checkpoint 3 or 8</td>
<td>Charles</td>
</tr>
<tr>
<td>CP 3 or 8</td>
<td>Rebecca</td>
</tr>
</tbody>
</table>

**Unsure (need info)**
- Endangered animal balance
- Tree I.D.

| CP 3 or 8 | Brad N |
| CP 3 or 8 | ???    |

Please confirm any proposals or changes in any activities by June 2.

* Please put activity proposals or question packets in my mailbox or give them to Craig Nowicki or Rebecca Swanson. Plan on putting in an hour for this event on Monday June 5 to finish up last minute details. Any questions --- see Craig or Rebecca.
**Staff Responsibilities at Major Checkpoints**

- **When team arrives at checkpoint**
  - Record time in
  - Take attendance
  - General instructions (What will this checkpoint involve?)
  - Collect packets due at arrival to checkpoint
  - *Make sure all team members are present (except those at bonus checkpoints) before proceeding with handouts/activities*

- **Oversee activities**
  - Assign appropriate point values and/or make sure activity completed
  - Set up / take down

- **When team leaves checkpoint**
  - Record time out
  - Take attendance
  - Collect packets due before leaving checkpoint
  - *At CP 6(K) and CP 11(E), the 2 people that left for the bonus checkpoint must rejoin their team before it moves on*

- **Grade question packets** (only if time allows --- this is not a top priority)

**Special Duties at Jensen / Holland**

- **Official starter/finisher**
  - Record attendance at start and finish
  - Record times at start and finish

- **Missing person facilitator**
  - Help students that arrive late find their team

- **Post Race**
  - Assist with post race activities
  - Monitor students

- **Nutrition coordinator**
  - Make sure each team gets their team snack at the halfway point
# Packet Collection Responsibilities

<table>
<thead>
<tr>
<th>Collect upon Arrival</th>
<th>Collect before Leaving</th>
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</thead>
<tbody>
<tr>
<td><strong>The Bridge (CP 3/H)</strong></td>
<td><strong>Multiple Meaning</strong></td>
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<tr>
<td>Environmental</td>
<td>French/Spanish challenge</td>
</tr>
<tr>
<td></td>
<td>Activity – Habitat balance</td>
</tr>
<tr>
<td></td>
<td>Activity – The penguins</td>
</tr>
<tr>
<td><strong>Holland Lake (CP 6/K)</strong></td>
<td><strong>Bolsoni quiz</strong></td>
</tr>
<tr>
<td></td>
<td>Animal planet (bonus)</td>
</tr>
<tr>
<td></td>
<td>Counselor’s corner</td>
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<td></td>
<td>Activity – Math jeopardy</td>
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<tr>
<td></td>
<td>Activity – How tall is that tree</td>
</tr>
<tr>
<td></td>
<td>Activity – Fecal follies</td>
</tr>
<tr>
<td><strong>The Field (CP 8/B)</strong></td>
<td><strong>It’s elementary</strong></td>
</tr>
<tr>
<td></td>
<td>Name that quote</td>
</tr>
<tr>
<td></td>
<td>Activity – Wounded at CP 8/B</td>
</tr>
<tr>
<td><strong>Jensen Lake (CP 11/E)</strong></td>
<td><strong>Who wants a million doll-hairs</strong></td>
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<td></td>
<td>It must be the water (bonus)</td>
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<td></td>
<td>Chemistry corner</td>
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<td>RU renewable</td>
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<td></td>
<td>Activity – Voyageur canoe</td>
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<td>Interpretive signs</td>
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APPENDIX E
Other Adventure Challenges

Information about events similar to the SES adventure challenge appear in this appendix.

Instructions, an itinerary and a course map for the SES outdoor winter recreation eco-challenge in March, 2000 are included in this appendix. The same information for the SES outdoor winter recreation eco-challenges in 2001 and 2002 is also included in this appendix in chronological order.
ECO CHALLENGE

OBJECTIVE
Complete a rigorous course through Lebanon Hills Regional Park using teamwork, navigation skills and endurance.

DESCRIPTION
Course starts and ends at the Schulze Lake beachfront. There will be a series of checkpoints (15 total). Each team must sign in (all members) and record time of arrival at each checkpoint. Checkpoints must be completed in order. Every member of a team must arrive at a checkpoint before a team progresses to the next checkpoint. This is not just a hike --- some check points involve group initiatives. Each checkpoint will have a sign-in card and a card with special instructions for the next leg of the challenge. Please leave the cards in the bags and make sure to zip-lock tightly in case of rain.

RULES
1) No going on ice.
2) No bushwacking (straying from a clear path).
3) Completion of group initiatives will be based mostly on an honor code. Please respect the Eco Challenge and the other teams by completing all instructions given.

SAFETY
- Whistles for safety --- 3 long blasts for emergency.
- Stay put for minor injury (i.e. sprain)
- Send 2 runners back to start / finish area and find Ms. Swanson for emergency.
- Check with Mr. Meyer at checkpoints #7 and #12 to ensure that everything is OK.

EQUIPMENT
Each person must have the following while on trail:
- Small backpack
- Water bottle (full)
- Raingear
- Hat
- Gloves
- Trail snacks (granola bars, snickers, etc.)
- Comfortable shoes (running or hiking)
- Enough layers to keep you warm in any weather

Your clothes will get dirty --- dress appropriately.

Each team must have the following while on trail:
- Watch
- Pens (2)
- Whistle
- Trail maps (2)
- Itinerary (2)
- Copy of rules
- Compass
- Topographic map

In addition, “extra supplies” will be presented to each team on the day of the Eco Challenge. Teams must carry these throughout the course.
Each person should have the following at the start finish area:
  Lunch
  Extra set of dry clothes
  Change of socks
  Change of shoes

Team Green
Gabe Teneyuqle
Kevin Stevenson
Patti McGarrigle
Diana Dunbar
Josh Davis

Team Orange
Jason Kallas
Ryan Benson
Kate Erickson
Jessica Schweim
Adam Clarke
Rob Pfister

Team Yellow
Jim Maloney
Brandon Woodruff
Danielle Dixson
Natasha Parris
Jake Sheppard
Zach Garr

Team Gold
Jeff Tapper
James Ebert
Clea Liquard
Heather Wickberg
Matt Garayt
Erin Trelstad

Team Pink
George Hart
Matt Sanders
Mandi Hanks
Melissa Schlukebier
Ryan Murray
Jaime Louisiana

WORDS TO THE WISE
- Plan for a 3 to 5 hour Eco Challenge
- Eat well and drink well before and during Eco Challenge
- Remember the 6 P’s of adventure challenges
ECO CHALLENGE

Welcome to the 1st annual SES ECO-CHALLENGE. The following is a description of the course events. Remember teamwork, push yourselves hard, and have fun! Our hope is that this challenge will be a success, and that you will all share ideas on how to improve it and make this an annual event.

Good Luck!

Course Start: 8:30 a.m. At student suggestion, we will have a staggered start in intervals of 4 minutes:
8:30 Pink
8:34 Gold
8:38 Yellow
8:42 Orange
8:46 Green

At course start, each team will run to checkpoint #1:

Checkpoint #1: (posted on a map post)
When all members of your team have arrived, each member must initial the time card. Write the TIME of your team's arrival, so we can ensure that everyone did checkpoints in the correct order. Run/hike to Checkpoint #2. Pay close attention to the map.

Checkpoint #2: (posted on map post near shelter)
When all team members arrive, write time and initials (all) on time card.
TRUST WALK: All but one member of your team must be blindfolded. Proceed this way to CP#3.

Checkpoint #3: (posted on map post)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#4.

Checkpoint #4: (posted on map post)
When all team members arrive, write time and initials (all) on time card.
TEAM POLE: All members of your team must be touching/holding the ski pole at all times until you reach CP#5.

Checkpoint #5: (posted on map post near shelter)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#6.

Checkpoint #6: (posted on map post near shelter)
When all team members arrive, write time and initials (all) on time card.
BALL THROW: Ball must be passed to each person on your team (in order) repeatedly until CP#7.
If ball is dropped 3 times, entire team must return to CP#6 and repeat until successful.

Checkpoint #7: (posted on horse hitch)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#8.
When all team members arrive, write time and initials (all) on time card.

MANDATORY 5 MINUTE BREAK after all of your team arrives. (Water/bathroom break).
Each team will pick up 2 gallon jugs of water from this checkpoint. Both of these must be carried through duration of course. You may drink 1 now (and carry the empty); 1 jug must remain full until CP#12. Both jugs must be returned at course end.
Run/hike to CP#9.

Checkpoint #9: (posted on map post)
When all team members arrive, write time and initials (all) on time card.

THREE-LEGGED: Two members of your team must have legs tied together (3-legged) at all times until CP#10 (may switch members partway).

Checkpoint #10: (posted on shelter)
When all team members arrive, write time and initials (all) on time card.

BONUS:
At this time, your team may choose to send two (2) members to get to the Bonus Checkpoints. The remaining members rest at CP10. For each Bonus, we will deduct 20 minutes from your score.
Bonus A: (posted on picnic table; nearby tree is also flagged)
Write time and initials of TWO members on card.
Bonus B: (posted on tree ID post- near beach house)
Write time and initials of TWO members on card.

When all team members have returned to CP#10,
FRISBEE THROW: Same as ball throw, except with frisbee. Proceed to CP#11.
If frisbee drops 3 times, return to CP#10 and repeat until successful.

Checkpoint #11: (posted on map post)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#12.

Checkpoint #12: (posted on map post)
When all team members arrive, write time and initials (all) on time card.

HUMAN CARRY: One member of your team must be carried (nothing touching the ground) to CP#13.

Checkpoint #13: (posted on shelter)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#14.

Checkpoint #14: (posted on map post)
When all team members arrive, write time and initials (all) on time card.
Run/hike to CP#15.

Checkpoint #15: (posted on map post)
When all team members arrive, write time and initials (all) on time card.

Home Stretch!
BIG RAPPEL: At top of hill after CP#15 you will find a rope attached to a tree. Each member of team must “Rappel” backwards down the hill (holding rope). At end of rope, turn and run/hike forward to orange cones.
CRAWL: At orange cones, drop and crawl to next set of cones. Then you may run to the finish!
For your enjoyment and the enjoyment of others, please follow these simple rules:

- Respect the rights of other park visitors.
- Use trails for designated purposes only. Ski the correct, one-way direction. No ski skating, hiking or sledding on tracked trails.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas or on ski trails. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.
ECO CHALLENGE

OBJECTIVE
Complete a rigorous course through Lebanon Hills Regional Park using teamwork, navigation skills and endurance.

DESCRIPTION
Course starts and ends at Jensen Lake. There will be a series of checkpoints (12 total). Each team must sign in (one team member clearly writes his/her name) and record time of arrival at each checkpoint. Checkpoints must be completed in order. Every member of a team must arrive at a checkpoint before a team progresses to the next checkpoint. This means all team members must simultaneously touch the checkpoint post. 2 people from each team must be snowshoeing throughout the entire course. 4 ski bonus checkpoints are also part of the course. Some check points involve group initiatives. These bonus checkpoints and initiatives will be described in the course itinerary. Each checkpoint will have a sign-in card and a card with special instructions for the next leg of the challenge. Please leave the cards in the bags and make sure to zip-lock tightly in case of rain.

RULES
1) Do not hike on ski trails.
2) Do not hike on driveable roads. (This will mess up the snowshoes. Crossing the roads on snowshoes is permissible.)
3) Ski only in the correct direction on one-way trails. (The only exception to this rule is the xxxxx section after bonus checkpoint B.)
4) Completion of group initiatives will be based mostly on an honor code. Please respect the Eco Challenge and the other teams by completing all instructions given.

SAFETY
- Whistles for safety --- 3 long blasts for emergency.
- Stay put for minor injury (i.e. sprain)
- Send 2 runners back to start / finish area (Jensen Lake) or the midpoint area (Holland Lake) and find Ms. Hein for emergency.
- Check with Mr. Meyer and Ms. Melhouse at various points throughout the course to ensure that everything is OK.

EQUIPMENT
Each person must have the following while on trail:
- Small backpack
- Water bottle (full)
- Hat
- Gloves
- Trail snacks (granola bars, snickers, etc.)
- Warm footwear
- Enough layers to keep you warm in any weather
Each team must have the following while on trail:
- Watch
- Pens (2)
- Whistle
- Trail maps (2)
- Itinerary (2)
- Copy of rules
- Compass

In addition, “extra supplies” will be presented to each team on the day of the Eco Challenge. Teams must carry these throughout the course.

Each person should have the following at the start finish area:
- Lunch
- Extra set of dry clothes
- Change of socks
- Change of shoes

Team Green
Billy Sanders
Mike Rynders
Sarah Preusse
Krista Schauerhamer
Alfredo Rodriguez
Amanda Hosek (may leave at 11:30)

Team Yellow
Bri Runke
David Colwell
Natalie Kaess
Mike Hegarty
Mark Venasky
Lindsay Bauman (leaves at noon)
Quang Truong (leaves at 10:30)

Team Pink
Lindsey Mccannel
Neeka Connors
Sarah Inman
Bernie Fraser
Eric Rudd (leaves at 10:30)
Katie Stevenson (may arrive at 10:30)
Lindsay Connolly (leaves at 11:30)

Team Orange
Micah Skindelien
Ayla Aymond
Jake Bennett
Ryan Prchal
Betsy Bennis
Sarah Rustad (leaves at 10:30?)
Cynthia Yuen (may arrive at 10:30)

Team Gold
Rob Pfister
Zach Dando-Thompson
Sieren Petersen
Brian King
Nicole Deinert
Selina Billington (leaves at noon)
Chris Buntjer (arrives at 9:45?)

Eco Challenge Officials
Frank Coburn
Sarah Ruhstad ?
Chris Buntjer ?
Jason Reeves

WORDS TO THE WISE
- Plan for a 3 to 5 hour Eco Challenge
- Eat well and drink well before and during Eco Challenge
- Remember the 6 P’s of adventure challenges

Extra Equipment
- Whistle
- Compass
- Frisbee
- Water Jug (picked up at midpoint)
- Blindfold strips
- 3 snowshoe
- 2 pairs ski (boots, poles)

Students take these built on own
(make sure they have them)
ECO CHALLENGE

Welcome to the 2nd annual SES ECO-CHALLENGE. The following is a description of the course events. Remember teamwork, push yourselves hard, and have fun! Our hope is that this challenge will be a success, and that you will all share ideas on how to improve it and make this an annual event.

Good Luck!

Course Start: 8:30 a.m. At student suggestion, we will have a staggered start in intervals of 5 minutes:
8:30 Yellow
8:35 Green
8:40 Gold
8:45 Pink
8:50 Orange

At course start, each team will proceed to checkpoint #1. One catch, this is the HUMAN CARRY station. One member of each team must be carried (nothing touching the ground) to CP #1.

Checkpoint #1: (posted on an interpretive post) When all members of your team have arrived, sign the time card. Write the TIME of your team’s arrival, so we can ensure that everyone did checkpoints in the correct order. Proceed to CP #2.

Checkpoint #2: (posted on picnic table, nearby tree is also flagged) (When all team members arrive, write time and sign the time card). TRUST WALK: All but one member of your team must be blindfolded. Proceed this way to CP#3.

Checkpoint #3: (posted on map post near shelter) (When all team members arrive, write time and sign the time card). ADD A SNOWSHOER: 3 people must be snowshoeing until you reach CP#4.

Checkpoint #4: (posted on map post) (When all team members arrive, write time and sign the time card). LEAP FROG: Proceed toward CP #5 in normal fashion until you reach CP#7. At this point, 2 team members must leap frog each other all the way to CP #5.

Checkpoint #5: (posted on map post) (When all team members arrive, write time and sign the time card).

BONUS: At this time your team may choose to send 2 members to get Bonus Checkpoints A and B. The remaining members will proceed to CP #6. For each bonus, 25 minutes will be deducted from your total time.
Bonus A: (posted on map post) Write time and sign the time card. Both skiers must simultaneously touch checkpoint post.
Bonus B: (posted on map post) Write time and sign the time card. Both skiers must simultaneously touch checkpoint post. Bonus skiers will meet up with their team at CP #6.
Checkpoint #6: (posted near big map by parking lot)
When all team members (both skiers and nonskiers) arrive at CP #6, write time and sign time card.
MANDATORY 5 MINUTE BREAK after all your team arrives. (Water and bathroom break.)
Each team will pick up one gallon of water at this checkpoint. The empty jug must be returned with your equipment at the finish.
3-LEGGED: 2 members of your team must have legs tied together (3-legged) at all times until CP #7.

Checkpoint #7: (posted on map post)
(When all team members arrive, write time and sign time card).
FRISBEE TOSS: Some team members toss frisbee as team proceeds all the way to CP #8. No walking with the frisbee. Each toss must be at least 5 feet. If frisbee is not caught, the frisbee must be rethrown from the spot of that toss. Your team can only move as fast as the frisbee moves.

Checkpoint #8: (posted on map post)
(When all team members arrive, write time and sign time card).
ADD A SNOWSHOEER: 3 people must be snowshoeing until you reach CP#9.

Checkpoint #9: (posted on map post)
(When all team members arrive, write time and sign time card).
Proceed to CP #10.

Checkpoint #10: (posted on shelter)
(When all team members arrive, write time and sign time card).

BONUS:
At this time your team may choose to send 2 members to get Bonus Checkpoints C and D. The remaining members will proceed to CP #11. For each bonus, 25 minutes will be deducted from your total time.
Bonus C: (posted on map post)
Write time and sign the time card. Both skiers must simultaneously touch checkpoint post.
Bonus D: (posted on map post)
Write time and sign the time card. Both skiers must simultaneously touch checkpoint post.
Bonus skiers will meet up with their team at CP #12.

Checkpoint #11: (posted on map post)
(When all nonskier team members arrive, write time and sign time card).
Proceed to CP#12.

Checkpoint #12: (posted on map post)
(When all team members (both skier and nonskier) arrive, write time and sign time card).
Home Stretch!
BIG RAPPEL: At top of hill after CP#12 you will find a rope attached to a tree. Each member of team must “Rappel” backwards (one at a time) down the hill (holding rope). At end of rope, turn and proceed (forward) to the finish.

*All equipment must be checked in with instructors within 10 minutes of completing your Eco challenge.
For your enjoyment and the enjoyment of others, please follow these simple rules:

- Respect the rights of other park visitors.
- Use trails for designated purposes only. Ski the correct, one-way direction. No ski skating, hiking, or sledding on tracked trails.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas or on ski trails. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.
ECO CHALLENGE

OBJECTIVE
Complete a rigorous course through Lebanon Hills Regional Park using teamwork, navigation skills and endurance.

DESCRIPTION
Course starts and ends at the Schulze Lake beachfront. There will be a series of checkpoints (15 total). Each team must sign in (one team member clearly writes his/her name) and record time of arrival at each checkpoint. Checkpoints must be completed in order. Every member of a team must arrive at a checkpoint before a team progresses to the next checkpoint. This means all team members must simultaneously touch the checkpoint post.

This is not just a hike. Some check points involve group initiatives. There are also bonus checkpoints. These bonus checkpoints and initiatives will be described in the course itinerary.

Each checkpoint will have a sign-in card and a card with special instructions for the next leg of the challenge. Please leave the cards in the bags and make sure to zip-lock tightly in case of rain.

RULES
1) Do not go on the ice (safety concerns).
2) Completion of group initiatives will be based mostly on an honor code. Please respect the Eco Challenge and the other teams by completing all instructions given.

SAFETY
- Whistles for safety --- 3 long blasts for emergency.
- Stay put for minor injury (i.e. sprain)
- Send 2 runners back to start / finish area (Schulze Lake) or the midpoint area (Holland Lake) and find Ms. Hein for emergency.
- Check with Mr. Meyer and Ms. Melhouse at various points throughout the course to ensure that everything is OK.

EQUIPMENT
Each person should have the following while on trail:
- Small backpack
- Water bottle (full)
- Rain gear
- Hat
- Gloves
- Trail snacks (granola bars, snickers, etc.)
- Comfortable shoes (running or hiking)
- Enough layers to keep you warm in any weather

Your clothes will get dirty --- dress appropriately.
Each **team** must have the following while on **trail**:
- Watch
- Pens (2)
- Whistle
- Trail maps (2)
- Itinerary (2)
- Copy of rules
- Compass

In addition, "extra supplies" will be presented to each team on the day of the Eco Challenge. Teams must carry these throughout the course.

Each **person** should have the following at the **start finish area**:
- Lunch
- Extra set of dry clothes
- Change of socks
- Change of shoes

**Team Red**
- Annie Blake
- John Imsdahl
- Chris Snyder
- Jon Kasai
- Lindsay Ragis
- Bobby Wachter (?)

**Team Yellow**
- Evan Graner
- Jeff Mattingly
- Brandon Hughson
- Matt Moore
- Lauren Johnson
- Tara Visnovec (?)

**Team Blue**
- Heidi Goeders
- Josh Lyte
- Chris Allen
- Matt McCabe
- Chris Kerr

**Team Orange**
- Wade Hanson
- JD Maturan
- Matt Hurt
- Cassidy Nee
- Wes Berg
- Sarah Saunders (?)

**Team Green**
- Kat Frederick
- Jay Kemp
- Ben Ulfers
- Nicki Korte
- Kent Wilson

**Team Purple**
- Nick Boyd
- Laura Jackson
- Jess Thorlacius
- Mark LaCroix
- Nick Tangen
- Mike Sweet (?)

**Eco Challenge Officials**: Cole Flohr, Becky Mrozinski

**WORDS TO THE WISE**
- Plan for a 3 to 5 hour Eco Challenge
- Eat well and drink well before and during the Eco Challenge
- Remember the 6 P’s of adventure challenges
Welcome to the 3rd annual SES ECO CHALLENGE. The following is a description of the course events. Remember teamwork, push yourselves hard, and have fun! Our hope is that this challenge will be a success, and that you will all share ideas on how to improve it. Good luck!

Course Start: 8:30 a.m. Per student suggestion, we have a staggered start at intervals of 6 minutes. Your entire team should be at the start line with all your gear 5 minutes prior to your start time.

8:30 Red
8:36 Orange
8:42 Yellow
8:48 Green
8:54 Blue
9:00 Purple

At course start, each team will proceed to checkpoint #1.

Checkpoint #1: (posted on a map post)
When all members of your team have arrived, sign the time card. Write the TIME of your team’s arrival, so we can ensure that everyone did the checkpoints in the correct order. Proceed to checkpoint (CP) #2. Pay close attention to the map.

Checkpoint #2: (posted on map post near shelter)
When all team members arrive, write time and sign the time card.
TRUST WALK: All but one member of your team must be blindfolded. Proceed this way to CP #3.

Checkpoint #3: (posted on map post)
When all team members arrive, write time and sign the time card.
Proceed to CP #4.

Checkpoint #4: (posted on map post)
When all team members arrive, write time and sign the time card.
TEAM HULA HOOP: 4 members of your team must be inside the hula hoop at all times until you reach CP #5.

Checkpoint #5: (posted on trail sign at top of hill)
When all team members arrive, write time and sign the time card.
Proceed to CP #6.

Checkpoint #6: (posted on map post near shelter)
When all team members arrive, write time and sign the time card.
BALL THROW: Some team members toss the ball as team proceeds all the way to CP #7. No walking with the ball. Each toss must be at least 5 feet. If the ball is not caught, the ball must be rethrown from the spot of that toss. Your team can only move as fast as the ball moves.

Checkpoint #7: (posted on horse hitch)
When all team members arrive, write time and sign the time card.
Proceed to CP #8.

Checkpoint #8: (posted in shelter house)
When all team members arrive, write time and sign the time card.
MANDATORY 5 MINUTE BREAK after all of your team arrives. (Water/bathroom break.) Each team will pick up 2 1-gallon jugs of water from this checkpoint. Both of these must be carried through the duration of the course. You may drink 1 now (and carry the empty); 1 jug must remain full until CP #12. Both jugs must be returned at course end.
Proceed to CP #9.
Checkpoint #9: (posted on map post)
When all team members arrive, write time and sign the time card.
THREE-LEGGED: 2 members of your team must have legs tied together at all times until CP #10 (may switch members partway).

Checkpoint #10: (posted on shelter)
When all team members arrive, write time and sign the time card.

BONUS:
At this time, your team may choose to send some members to get Bonus Checkpoints. The remaining members rest at CP #10. For each Bonus, we will deduct 20 minutes from your score. (2 members of a team must reach each bonus checkpoint in order to get credit for that bonus checkpoint.)

Bonus A: (posted on picnic table; nearby tree is also flagged) 
Write time and names of 2 members on card.
Bonus B: (posted on tree ID post – on trail near beach house) 
Write time and names of 2 members on card.

Only when all team members have returned to CP #10, may you proceed to CP #11.

Checkpoint #11: (posted on map post)
When all team members arrive, write time and sign the time card.
FRISBEE TOSS: Some team members toss frisbee as team proceeds all the way to CP #12. No walking with the frisbee. Each toss must be at least 5 feet. If frisbee is not caught, the frisbee must be rethrown from the spot of that toss. Your team can only move as fast as the frisbee moves.

Checkpoint #12: (posted on map post)
When all team members arrive, write time and sign the time card.
HUMAN CARRY: One member of your team must be carried (nothing touching the ground) to CP #13.

Checkpoint #13: (posted on shelter)
When all team members arrive, write time and sign the time card.
Proceed to CP #14.

Checkpoint #14: (posted on map post)
When all team members arrive, write time and sign the time card.

BONUS: At this time your team may choose to send 2 members to Bonus C. The remaining members will proceed to CP #15. 20 minutes will be deducted from your total score for this bonus.
Bonus C: (posted on map post)
Write time and names of 2 members on time card.

Checkpoint #15: (posted on map post)
When all team members (including bonus runners) arrive, write time and sign the time card.

Home Stretch!
BIG RAPPEL: At top pf hill after CP #15 you will find a rope attached to a tree. Each member of team must “rappel” backwards (one at a time) down the hill (holding the rope). At end of rope, turn and proceed (forward) to the finish.

*All equipment must be checked in with instructors within 10 minutes of completing your Eco Challenge. (1 whistle, 1 compass, 5 blindfolds / ties, 1 hula hoop, 1 ball, 2 water jugs)
For your enjoyment and the enjoyment of others, PLEASE FOLLOW THESE SIMPLE RULES

- Respect the rights of other park visitors.
- Use trails for designated purposes only. Ski the correct, one-way direction. No ski skating, hiking or sledding on tracked trails.
- Keep pets on a leash of not more than six feet. Pets are not allowed in picnic areas or on ski trails. Pet owners must carry and use an appropriate device for cleaning up and disposing of pet feces in a sanitary manner. Pets may not be tethered to plants or park fixtures.
- Beer and wine for personal consumption are permitted in picnic areas only. No bulk quantities. Hard liquor and controlled substances are prohibited.
- Set fires only in fire rings.
- Place waste and recyclables in proper containers.
- Motorized vehicles only in parking lot and on roads. No overnight parking.
- Preserve nature and wildlife. No hunting or trapping.