

INTRODUCTION

What do you think of when someone says the word wilderness? Chances are, you think about a rugged, desolate, perhaps even scary place, that does not offer you all of the creature comforts you're accustomed to. Maybe your mind conjures up visions of the old West with cowboys and Indians fighting over their piece of the wilderness. Some of you may have focused on the word wild in the word wilderness and come up with a picture of an untamed, wild area. Perhaps wilderness seems like a place where you can feel alone with nature, away from the noise and business of cities and towns. It might be a deep forest, a deserted coastline, an open meadow, a rugged mountain top or a vast desert.

Each of us may have our own idea about the meaning of wilderness. At different times throughout history there have been various social perceptions of wilderness, depending on the religious and cultural values that existed at the time. To Native Americans, what we now call wilderness was not wild but, rather their natural home which provided the physical and spiritual foundations of their lives and culture. Early Anglo-European explorers saw America as a vast and bountiful land, rich in many resources. More and more non-native settlers arrived with the belief that wilderness was a useless wasteland that needed to be conquered, tamed and civilized. To them, the wilderness was valuable only if the resources could be used for human purposes. In the 19th century, some of these people began to see the beautiful ruggedness of untamed lands as something inspirational and valuable in its own right. As environmental awareness grew, more and more citizens recognized the need to conserve the natural resources and protect the wilderness landscapes from development and exploitation. Finally, in 1964, Congress passed the Wilderness Act which set up a system for preserving some public lands as official and legally protected Wilderness areas. These Wilderness areas are part of the National Wilderness Preservation System and are managed to preserve their "unspoiled" and natural state for generations of Americans, present and future.

Our American Wilderness is an important asset. It is, in many instances, the only unspoiled nature left to us. It is a place for camping, hiking, canoeing, horseback riding, fishing, hunting, wildlife observation, plant study, geological exploration, mountain climbing, artistic expression, scientific investigation, spiritual renewal, personal challenge, and inspiration. It is a place where natural systems of life exist without significant human interference or control. Wilderness areas are protected not only for their many resources and benefits to humans but also to preserve all aspects of nature -- animals, plants, earth, air, water -- and ongoing natural processes for their own sake.

The concept of wilderness can mean different things to different people. To some, the park at the edge of town or the woods behind one's house can seem like a wild and untamed place. To others, wilderness areas are remote and pristine landscapes far removed from civilization such as forests, mountains, beaches, deserts, swamps, or meadows which may all seem to elicit a sense of what might be called wilderness. These wild lands may or may not be an actual part of the legally designated National Wilderness Preservation System. Often you will find those public wild lands that are legally designated and protected as part of the National Wilderness Preservation System identified as Wilderness, spelled with a capital "W." Those areas that are essentially wild and natural in character but are not part of the National Wilderness Preservation System are often referred to as wilderness, spelled with a lower case "w." Which ever meaning of wilderness is being referred to, it is important to foster an attitude of respect and responsibility toward all wild and natural areas.

THE ACTIVITIES

The study units that explore the meaning of "wilderness" for individual people are "Personal Wilderness" and "Background, History, and Philosophy. " The other units -- "Legislation and Management," "Natural Characteristics," and "Wilderness Skills" -- focus more on wilderness defined as those public lands legally designated to be part of the National Wilderness Preservation System or "Wilderness." Learning about wilderness and the need for its protection can help us learn about the value of the natural world in general and about our place in that world.

ACTIVITIES

TIME REQUIRED

Personal Wilderness	30 minutes
Wilderness Investigation	
Background, History and Philosophy	45 to 60 minutes
Legislation and Management	45 to 60 minutes
Natural Characteristics	90 minutes
Wilderness Skills	70 minutes with closure

COMBINING THE ACTIVITIES

The activities in this unit are displayed singly. For maximum learning, the activities should be experienced in the order listed in the unit, however, another suggestion is:

Begin with the first activity entitled, "Personal Wilderness." When you start the second activity, you will have the opportunity to decide which categories you want to focus on. The Wilderness Investigation Course is arranged in four general categories. Identify group needs and budget your time accordingly. This unit is recommended for 8th grade and up. The information and activities could also make several good sessions to use with groups working on Backpacking or Camping Merit Badges or with "low impact, no trace" camping presentations.

Social Studies

1. Find out what additional government agencies are concerned about and involved in designating wilderness areas and write a report on at least one.
2. Research what laws protect wilderness areas and their resources. Examine some political issues, such as that of the "Spotted Owl." Prepare a debate on all sides of the issues.
3. Study how various federal agencies have divided up aspects of the wilderness to manage and protect. Construct a chart to show your findings.
4. If you were a ranger, what would be your top priorities regarding the land for which you are responsible?

Science

1. We hear a lot about balance of nature. How does this principle work when we balance human uses of a wilderness area (i.e. backpacking vs. horseback use)?
2. Can the wilderness be managed for ecological succession as in climax stages and still be a wilderness?
3. What is the role of fire and fire fighting in a wilderness?

Mathematics

1. Study amount of human population a wilderness can support (campsites) before its resources are in danger of depletion. (Lessen biological and social impacts.)

Language Arts

1. Henry David Thoreau wrote, "In wildness is the preservation of the world." Write what you think he meant by this quote.
2. Interview a ranger. Tape the interview and then edit it; videotape it or present the interview in some form, such as role playing with a classmate.

Creative Arts

1. Draw the perfect wilderness scene you can imagine.
2. Create your own waste-buster symbols that would caution people against indiscriminately disposing of their waste in wilderness sites.

WILDERNESS INVESTIGATION

CONCEPT Change, Perception

PRINCIPLE

Participants use what they already know about a wilderness area to increase their understanding of it

OBJECTIVE

The student will develop an understanding of:

 What wilderness is.

 What values they can find in wilderness.

 How we can use the resource without damaging it.

PREPARATION

Tell students that this activity will take place largely in their imagination. They will draw on their previous experiences with wilderness sites.

MATERIALS

NEEDED

Copies of Activity Sheet A: Personal wilderness and Activity B: Drawing your wilderness (copied back to back) Pens or pencils

PROCESSES

USED

 Communicate

 Classify

 Observe

 Infer

 Hypothesize

 Define operationally

 Formulate models

TIME 5-10 minutes each activity, 30 minutes total

DOING THE ACTIVITY (outdoors, indoors)

A. Set Stage

During this session we will develop an understanding of what wilderness is and how we can use this resource without damaging it. There will also be an opportunity for you to explore wilderness in relation to your own set of values.

B. Procedure:

1. Do a short visualization. Ask students to close their eyes and spend the next few moments in a real or imagined area of wilderness where they would feel comfortable. Give them time to think.
2. Hand Out Activity Sheet A. Work individually for about 7 minutes to complete your ideas.

3. After 7 to 10 minutes, have students do Activity B. These two worksheets should be copied back-to-back. (Draw a picture of your area). Students should work individually.

C. Retrieve Data:

Conduct a group discussion, asking the following questions along with others you can think of:

1. What kinds of uses, activities, or experiences can wilderness provide for people?
2. What does wilderness provide for nature?
3. How would you define wilderness?
4. Why might a wild and natural area have to be managed or controlled?
5. How would you control or manage wilderness to protect and preserve it for the kinds of uses and experiences that make it unique and valuable?

CLOSURE

Summarize your ideas about the definition of wilderness. Talk about why management of wilderness is necessary. Explain the importance of preserving and protecting wilderness through management ideas presented and discussed?

TRANSITION **Note to facilitator:** At this point, you can decide with the group which of the following categories to focus on. The Wilderness Course is arranged in four general categories. Identify group needs and budget your time accordingly.

The Four General Categories:

Background, History, and Philosophy

- c. Quotes From the Past
- d. Through The Eyes of a Pioneer
- e. Search for Solitude

Legislation and Management

- f. Wilderness and Special Meas
- g. Wilderness Myths
- h. You're the Ranger

Natural Characteristics

- i. The Lone Wolf
- j. Fire on the Mountain
- k. Change with Time

Wilderness Skills

- l. Impacts and Traces
- m. Recycling in Wilderness (Waste)
- n. On Nature's Terms
- o. Packing Light

The Four General Categories:

WILDERNESS INVESTIGATION BACKGROUND, HISTORY, AND PHILOSOPHY

CONCEPT Change, Evolution, Perception

PRINCIPLE

Participants gain a better understanding of wilderness by first viewing it from a historic perspective.

OBJECTIVE

- The student will develop an understanding of what wilderness is based on--its background, history, and philosophy.

PREPARATION

Participants learn about the background, history and philosophy of wilderness through a variety of creative activities. You may elect to have your students do all or just a select few.

MATERIALS NEEDED

Copies of Activity Sheets C: Your Wilderness Quote, D: Pioneer Letter Home, E: Search for Solitude Pens or pencils

PROCESSES USED

- Communicate
- Question
- Classify
- Predict
- Observe

DOING THE ACTIVITY (indoors, outdoors)

A. Set Stage

During this session, we will develop an understanding of what background information wilderness is based on, perspectives about wilderness at different times of history, and the resulting wilderness philosophy.

B. Procedure

1. Begin by reading the following collection of quotes from the past. They coincide with the development of the wilderness concept in the United States.

It is important to discuss each quote. Talk about the meaning of each quote, the people who said it, and the peoples' lifestyles and cultural views. A library can provide biographical information for either the teacher/leader or students to look up.

NOTE: These quotes should be posted on the wall around the room for people to read on their own, and/or copy down.

"Is not the sky a father and the earth a mother, and are not all living things with feet or wings or roots their children? ..Give me the strength to walk the soft earth, a relative to all that is!"

Black Elk

"In wildness is the preservation of the world."

Henry David Thoreau, 1851

"Climb the mountains and get their good tidings. Nature's peace will flow into you as the sunshine into the trees. The winds will blow their freshness into you, and the Storms their energy, while cares drop off like autumn leaves."

John Muir, 1871

"If we are to have broad-thinking men and women of high mentality, of good physique, and with a true perspective on life we must allow our populace a communion with nature in areas of more or less wilderness condition."

Arthur Carhart, 1921

"There is just one hope of repulsing the tyrannical ambition of civilization to conquer every niche on the whole earth. That hope is the organization of spirited people who will fight for the freedom of the wilderness."

Robert Marshall, 1930

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still high 'standard of living' is worth its cost in things natural, wild, and free. For us the minority, the opportunity to see geese is more important than television, and the chance to find a pasque flower is a right as inalienable as free speech."

Aldo Leopold, 1948

"Out of the wilderness has come the substance of our culture, and with a living wilderness.. we shall also a vibrant, vital culture, and enduring civilization of healthful, happy people who. . . perpetually renew themselves in contact with the earth. We are not fighting progress, we are making it."

Howard Zahniser, 1964

"This land is a place of all seasons, for even in winter there is the promise of spring, and in spring, the foretaste of summer. Here, part of every season is contained in every other. The tight-woven knowledge from all our yesterdays. . . is held in the stern simplicity of tree and sky and flower and rock, a certainty of tomorrow. . . there is always a sense of coming home, a feeling of belonging. . . this wild mountain land is home in a way that no city house can ever be."

Ann Zwinger, 1970

"In order to assure that an increasing population accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of Wilderness."

Wilderness Act, Public Law 88-577, U.S. Congress, 1964

2. Distribute Activity Sheet C; students come up with their own quote. Give students about 10 minutes to do this. Individual work.

3. Mid Activity Discussion

Students share their quotes if they want to. Give them paper to add their quotes to the wall.

4. Introduce the next activity, Through The Eyes of a Pioneer, by saying: The year is 1862. You and your family have moved from Baltimore, Maryland, and plan to homestead along the Missouri River. Write a short letter to friends back in Baltimore. Try to describe the pioneer's attitude toward wilderness and the settling of the frontier. Describe possible interactions with the environment. Tell about the journey westward. You could have a group of students brain storm ideas and then assign members to write down the groups' idea. Draft the letter based on the recorder's notes, or edit and write the final draft. Or, you could have students work individually. Hand out Activity Sheet D. Allow 23 to 30 minutes for this activity. If you choose to work in groups, instruct one group member to send the letter to another group where the letter will be read aloud.
5. TEACHER NOTE: If students seem stymied about pioneer attitudes, send them to library to look up references - or remind them of literature like Sarah Plain and Tall, the Cabin Faced West, and Laura Wilder's books.

6. Mid Activity Discussion

Conduct a group discussion, asking the following questions about the letters your students wrote:

- a. What attitudes about wilderness are apparent in the letters?
 - b. What differences might have existed between the pioneers and the Native Americans about wilderness?
 - c. Have attitudes about wilderness changed from the pioneer days?
 - d. Could Americans today have an experience like the pioneers coming to settle in the West? Are there any unknown and unsettled "frontiers" for us?
 - e. What can we say about present day attitudes toward wilderness?
7. Distribute Activity Sheet E, Search for Solitude. Think about a special place or hideout where you used to go, now go, or would like to go to get away from the world...to think. ..to be alone...to experience solitude. Individuals have 5 to 10 minutes to complete this activity.

C. Retrieve Data

1. Have students share this place with the group after they are finished.
2. Ask the following questions about solitude to summarize this activity:
 - a. What is solitude? Why is it important? Do you have to be alone to experience it?
 - b. Where is your special place now? Has it changed? Will it always be there for you to enjoy?
 - c. How have your thoughts about solitude changed as you have gotten older?
3. Discuss the mention of "solitude" in the Wilderness Act. The Wilderness Act includes the provision of outstanding opportunities for solitude as one of the main characteristics necessary for an area to be designated as a wilderness area.
 - a. Why do you think opportunities for solitude were included in the Wilderness Act?
 - b. What kinds of things could threaten or take away opportunities for solitude in wilderness areas?
 - c. How can wilderness be managed so that opportunities for solitude can always remain?

CLOSURE

Summarize your definitions of wilderness. Explain the significance of preserving it through careful management techniques we discussed.

TRANSITION

Note to facilitator: At this point, you can decide with the group which of the following categories to focus on. The Wilderness Investigation is arranged in four general categories. Identify group needs and budget your time accordingly. Decide upon the proper transition statement.

WILDERNESS INVESTIGATION - LEGISLATION AND MANAGEMENT

CONCEPT Change, Perception

PRINCIPLE

Participants gain a better understanding of wilderness by looking at legislation that has been created to protect and manage it, and at the agencies who apply the legislation.

OBJECTIVE

- The student will know what legally designated Wilderness is, what agencies protect and manage it, and the types of regulations with which wilderness users must comply.

PREPARATION

Through a variety of creative activities, participants learn that four federal agencies are responsible for management of our public, federally- owned lands and that in terms of human activity, legally designated wilderness areas have some restrictive land use regulations. You may elect to do all or just a portion of the activities. Obtain a land management map for your local area to help students understand the complexity of land management. These might be obtained from your county planning department or a local U.S. Forest Service, National Park, Fish and Wildlife Service, or Bureau of Land Management.

MATERIALS NEEDED

Copies of Activity Sheets F: Management Challenges (p. 1 & 2); G: Wilderness Myths and "Key"; H: You're the Ranger Pens or pencils
Wilderness Act Fact Sheet

PROCESSES USED

Communicate
Question
Classify
Infer
Predict
Hypothesize
Observe
Interpret data

45 to 60 minutes, allowing for discussion

DOING THE ACTIVITY (indoors, outdoors)

A. Set Stage

During this session, we will learn that four federal agencies manage most of our public, federally-owned lands. We will learn that in order to protect them, legally designated Wilderness lands have regulations concerning what people can or can not do there. We will also learn about the many responsibilities a ranger has in managing these protected sites and about the responsibilities that wilderness visitors have in adhering to the established laws and regulations.

B. Procedure

1. Begin by saying: Wilderness is just one of the many official land-use designations that can be placed on our federally-owned lands. Currently, there are close to 91 million acres in the National Wilderness Preservation System. This equals 15 percent of the federal public lands and 4 percent of the total United States land base. Four federal agencies are responsible for the management of wilderness areas. These are the U.S. Forest Service, which is part of the United States Department of Agriculture and the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service which are all part of the United States Department of the Interior. It may seem strange to talk about managing something that is wild or controlling lands that are natural. But managing wilderness is important because we need to ensure that people who use wilderness areas and the lands around those areas do not harm the natural characteristics of wilderness.

In wilderness areas, certain uses and human activities that are allowed on other public lands are more restricted. For instance, while you may use a power boat or a ski mobile in a National Recreation Area, you may not do so in a wilderness area because no motorized vehicles are allowed there. You can not log timber in a designated wilderness. If you wanted to camp with a large group of friends in a National Park, you might have to do it outside the Wilderness boundaries; the number of people traveling or gathering as a group in wilderness areas is often limited. These are some of the ways that wilderness is managed to preserve and protect it.

You can think of wilderness as being on the pristine or wild and natural end of a land-use spectrum or continuum, with cities or towns at the other paved and civilized end. In the middle of the spectrum are rural or pastoral lands where there is more of a balanced use between people and nature. There are also federal land-use designations such as Wild and Scenic Rivers, National Recreation Areas, National Parks, and Wildlife Refuges that seem to be somewhere between the rural and the wilderness designations on the land-use spectrum. Of course, these separate land areas do not exist in a straight line but overlap and complement each other such as when a National Recreation Area exists inside a National Forest. Together, they form a mosaic or jigsaw puzzle picture of land designation and use. You can imagine that managing these areas--each with their own, different uses, purposes and regulations and sometimes situated adjacent to each other--is a complicated task for federal agencies.

2. Distribute Activity Sheet F, Management Challenges for Federal Agencies. Assign pairs to each of the 4 scenarios. Students should work as partners. Allow 20 minutes.

3. Mid Activity Discussion

Discuss the following questions with your group after completing Activity Sheet F.

- a. What are some problems that might arise when management agencies have situations in which wilderness policies conflict with other management needs?
 - b. What are some ways of solving such dilemmas?
 - c. What are some advantages or disadvantages of having more than one federal agency manage wilderness?
 - d. Would you rather be in charge of a National Park Service, U.S. Forest Service, Bureau of Land Management, or U.S. Fish and Wildlife Service Wilderness Area? Why?
4. Distribute Activity Sheet U, Wilderness Myths, and say: While there are some restrictions in Wilderness Areas, there are many authorized uses. Look through the following list and mark the travel methods and activities you think are allowed inside wilderness. Do this by yourself. You have 5 minutes. Then have them check their list against a partner's list. Changes can be made if they can explain their reasons.

5. Mid Activity Discussion

Discuss Activity G with the help of these questions and the Wilderness Act Fact Sheet

- a. Do any of the permitted uses seem to harm wilderness?
- b. What might be some of the potential harms or benefits of the authorized uses?
- c. Are there any prohibited uses that you might allow, or permitted uses that you might prohibit? Why?

From the 1964 Wilderness Act:

"Except as otherwise provided in this Act, each agency administering any area designated as wilderness shall be responsible for preserving the wilderness character of the area and shall so administer such area for such other purposes for which it may have been established as also to preserve its wilderness character. Except as otherwise provided in this Act, wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historic use."

Prohibition of Certain Uses - Section 4 (c):

"Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and, except as necessary to meet minimum requirements for administration of the area for the purpose of the Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transportation, and no structure or installation within any such area'

- a How might various agencies manage their wilderness differently?
 - b. What are some potential problems that might arise when an area has dual designations (i.e. wilderness in a Wildlife Refuge)?
 - c. What are the advantages or disadvantages to having several agencies managing wilderness?
4. Distribute Activity Sheet G, Wilderness Myths, and say, there are many authorized uses in wilderness. Look through the following list and mark the travel methods and activities you think are allowed inside wilderness. Do this by yourself. You have 5 minutes. Then have them check their list against a partner's list. Changes can be made if they can explain their reasons.

5. Mid Activity Discussion

Discuss Activity G with the help of these questions:

- a. Do any of the permitted uses seem to harm the Wilderness?
 - b. What might be some potential harm or benefit?
 - c. Are there any prohibited uses that you might allow?
6. Introduce Activity Sheet H, You're the Ranger, by stating: You land a job as the Wilderness Ranger for the Pine Tree Wilderness. This 38,000 acre wilderness is 27 miles southeast of a city of 60,000 people. This is the most mgged of the local mountain areas with deep, narrow canyons, and high, barren peaks. There are 36 lakes, providing for some excellent fishing. A major magazine does a feature story highlighting the breathtaking beauty and excellent fishing in the Pine Tree Wilderness. Here come the crowds! Campsites spread in number and size. Native vegetation is being replaced by knapweed and bare soil. Water quality becomes questionable. Firewood supplies are depleted and campers have started chopping down live trees. Several fights have been reported between campers at crowded lake basin sites.

C. Retrieve Data

Discuss Activity H with your students. These questions might help in the discussion.

1. What problems might there be in managing an area so it looks untouched by humans?
2. How will you assess and monitor changes or impacts within wilderness?
3. How will you decide what is acceptable and unacceptable change?
4. What will you do about this change?

CLOSURE

List the agencies that manage wilderness.

How would you summarize their role(s) in wilderness management? What, if any, differences do you see in the agencies' roles? What should be the overall purpose behind any wilderness management?

TRANSITION Depends upon which activity you choose next.

WILDERNESS INVESTIGATION - NATURAL CHARACTERISTICS

CONCEPT Change, Perception, Cycles

PRINCIPLE

Participants gain a better understanding of changes that occur in Wilderness by studying its natural characteristics.

OBJECTIVES

The student will be able to identify several natural characteristics of a wilderness.

PREPARATION

Participants learn to respect wilderness by understanding the important role they can play in helping to manage and preserve our natural environment. Use as many visuals of natural characteristics as you can find to enhance the activities. Example: rock outcropping, forest, lake, stream, deer or other wildlife, wildfire, lightning, night sky, etc.

MATERIALS NEEDED

Copies of Activity Sheets I: The Lone Wolf, J: Fire on the Mountain

K: Change with Time

Pens or pencils

Visuals of natural- characteristics

PROCESSES USED

Communicate
Classify
Observe
Space-time relation
Questions
Infer
Predict
Hypothesize
Formulate models

TIME

90 minutes, depending upon discussion, break into 2 class periods

DOING THE ACTIVITY (indoors, outdoors)

A. Set Stage

Students explore natural characteristics in an imaginative, creative way. They begin their first activity by pretending to be one of the wilderness' valuable creatures, the wolf.

B. Procedure

1. Begin by saying; A Rocky Mountain wolf has been seen in a nearby wilderness. People rarely visit this remote area. Let your imagination work. You are the wolf.
2. Distribute Activity Sheet I, The Lone Wolf. Give individual students about 10 minutes to work on this.

3. Mid Activity Discussion

Discuss the following questions with your group, this should take about 5 minutes.

- a. What would make life easy for you as a wolf?
- b. What would make life more difficult?
- c. If a conflict arose between man and wolf, whose rights should be protected?
- d. What will happen to the lone wolf?
- e. If you could be any other animal, plant, or part of the wilderness such as a rock, mountain, or stream what would you be, and why? Discuss in pairs or triads.

4. Distribute Activity Sheet J, Fire on the Mountain, and say: A thunderstorm makes its way down the Bitterroot Mountain Range. Lightning strikes on Beaver Ridge. A fire starts just inside the wilderness boundary. Remember that the fire was caused in the wilderness by a natural event. And unless there are emergencies involving the health and safety of persons within the area, no motorized or mechanical vehicles are to be used within wilderness areas. Assign the following interest groups as participants.

Adjacent landowner

Wilderness ranger

Local hunter

Backpacker

Naturalist

Nearby city council member

Outfitter and guide

You have 35 minutes to complete this activity. Teacher or students could prepare a map graphic to use in your oral presentation.

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Investigating Your Environment
Wilderness

5. Mid Activity Discussion

Have each group present their plan with their map, and during the discussion, try to answer these questions.

- a. Under what conditions should the fire be allowed to burn?
- b. What are the benefits or costs to man or nature?
- c. Is there a possible compromise between interests?
- d. What should be done about other natural processes at work in Wilderness?

NOTE: The Resource Manager must manage a wilderness and any fire activity to protect the resource and any property in the way of fire. Although these positions will be considered, the bottom line is that decisions are made to protect the resource value.

6. Introduce Activity Sheet K, Change with Time, by saying: Close your eyes, revisit through visualization, your favorite wilderness spot. Wilderness is dynamic. As we speak, changes are taking place. There is a continuous cycle of birth, death, and change. Describe this changing environment in terms of the following times. Take 10 minutes to complete Activity K by yourself.

C. Retrieve Data

In the next 5 to 7 minutes, discuss Activity K. Ask the following questions:

1. What personal feelings of fear, excitement, or contentment do you associate with any of these times?
2. How do you distinguish between natural and unnatural characteristics occurring there?
3. What is so important about having a place, like wilderness, where nature can change, unaffected by human population?

CLOSURE List as many natural characteristics of wilderness as you can.
Summarize the changes and processes that take place in wilderness unaided by humans?

TRANSITION We have thought a lot about wilderness. Look at some of the skills we would need to enjoy wilderness, besides learning to use it well too.

WILDERNESS INVESTIGATION - WILDERNESS SKILLS

CONCEPTS Cause/ Effect, Equilibrium, Interaction

PRINCIPLE

Participants gain a better understanding of the personal skills necessary to use wilderness areas without destroying the balance of nature within a wilderness.

OBJECTIVE

The student will be able to identify ways in which humans can reduce their impact on wilderness areas.

PREPARATION

Gather visuals, audio-visual, etc. to support the activities.

MATERIALS NEEDED

Copies of Activity Sheets L: Impacts and Traces

M: Cleaning Up the Wilderness and key

N: On Nature's Terms.

O: Packing Light

Pens or pencils

PROCESSES USED

Communicate

Question

Classify

Observe

Hypothesize

Infer

Predict

TIME 70 minutes with closure

DOING THE ACTIVITY (indoors, outdoors)

A. Set Stage

Students determine how they can limit their impact on wilderness, thus allowing nature to function uninterrupted.

B. Procedure

1. Begin by saying; Each wilderness visitor has a personal responsibility to help manage and preserve our natural environment. This is especially important in wilderness and other undeveloped areas. The challenge is to limit your impact and leave no trace.
2. Distribute Activity L, Impact and Traces. Ask students to work individually to complete the sheet. (10 minutes). They may want to work with a partner to finish or gain new ideas after they've worked alone.

3. Making sure to take care of trash and waste items is one of the most effective ways humans can preserve the environment. Ask: What do you do with trash in the wilderness where there are no garbage cans or recycling bins? Then, distribute Activity Sheet M and instruct your students to write down how they would dispose of the following items in a way that would least impact wilderness. Work individually. (5 minutes).

4. This activity will generate a lot of discussion. Start by asking what they would do with an item; such as a freeze-dried food package, for which there is more than one right answer. Discuss about 10 to 15 minutes or until it seems settle. You may want to obtain some brochures or booklets on No Trace camping techniques to provide more information.

5. Distribute Activity Sheet N, On Nature's Terms, and say: Nature has a way of challenging visitors in the back country. Many people go to wilderness areas to meet the personal risks and challenges these areas can offer. Remember that safety is crucial to wilderness survival. It is always a good idea to remember the following three guidelines::

Go prepared!

Be observant!

Anticipate dangers!

NOTE: You may want these on a board or flip chart somewhere.

Read through the following situations and see if you know how to deal with them. Split into small groups and assign one situation to each small group and have them spend 10 minutes discussing what they would do. Ask for a 3-minute summary.

6. Mid Activity Discussion

Ask groups to report. Summarize Activity N with the help of these questions:

- a. How much risk should people take when using wilderness?
 - b. Are there some feelings of danger or challenge that are associated with a quality wilderness experience?
 - c. When users are in trouble, who should be responsible for search and rescues?
 - d. What can we say about risk in wilderness?
7. Introduce Activity Sheet O, Packing Light, by saying: Packing light reduces impact on the land. This exercise will get you thinking about essential items and their weights. Distribute Activity Sheet O. This should take 10 to 15 minutes depending on if you prioritize the list or not.

8. Mid Activity Discussion

Discuss the completed activity with your students by asking them the following questions:

- a. Which items help you limit your impact on wilderness?
- b. Which items did you leave behind?
- c. What did you base your decisions on?
- d. Which items are truly essential for survival?

C. Retrieve Data

As a group, discuss the following questions:

1. How and where would you teach wilderness skills?
2. What wilderness skills do you think humans absolutely must possess in order to be wise users?
3. Think back to Activity L, which impacts could be lessened or eliminated with the use of good wilderness skills? Which can not?

CLOSURE

At the start of this investigation, you described to us your personal definitions of wilderness. We then proceeded to take a closer look at the resource. Now apply your newly gained knowledge to that original wilderness you described. What are some changes you would make? Could your wilderness actually exist? What will our Wilderness areas be like 50 years from now? Go back to your personal wilderness quotation - Is this still how you feel? Revise and re-illustrate if you've changed or grown in your philosophy.

Wilderness areas are special places that are valuable for human uses and for the protection and preservation of nature itself. If you visit wilderness areas, acting wisely and responsibly will help ensure your safety and the health of the wilderness as well. Even if you never actually go to the wilderness, you can let people know that it is important to protect. And you can help take care of nature where you do find it; in parks, woods, at the beach, or even in your own backyard.

ACTIVITY A: Personal Wilderness

7 min.
individual

Spend a few moments and think of a real or imagined area of wilderness where you would feel comfortable.

1. Describe your area using words or phrases. What do you see, hear, smell, feel?

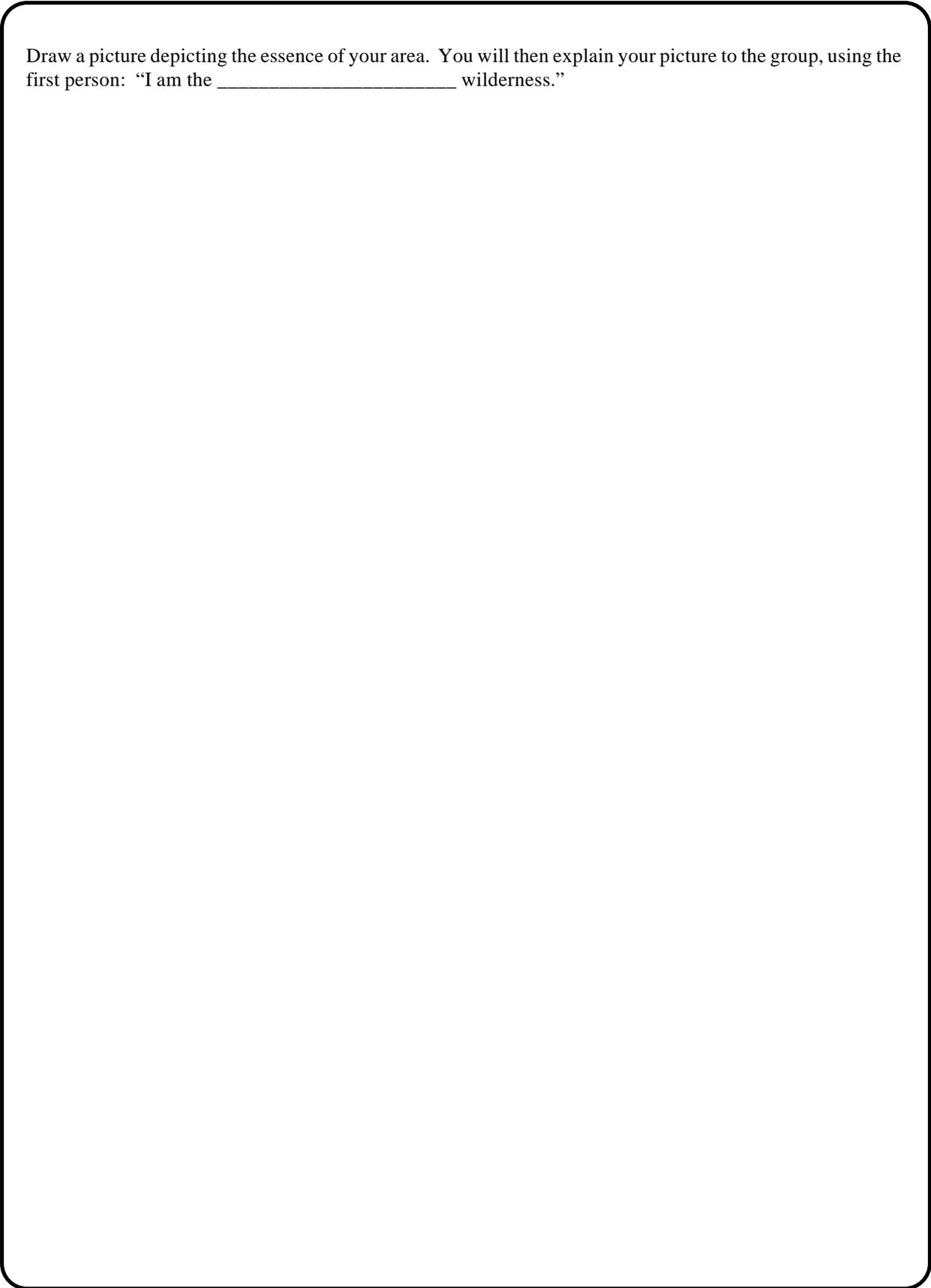
2. How would you use this wilderness, what could you do or experience there?

3. How could you make sure that your wilderness would be preserved for the kinds of things you want to do or see there?



ACTIVITY B: Drawing Your Wilderness

Draw a picture depicting the essence of your area. You will then explain your picture to the group, using the first person: "I am the _____ wilderness."



ACTIVITY C: Your Wilderness Quote

10 min.
individual

Many years from now people will read what you said and will think about what you believed in. Develop your own “quote from the past” that best describes your present thoughts on wilderness. Remember, this will be passed onto the next generation. You may also illustrate your quote. Use your best handwriting or calligraphy.

"

"



ACTIVITY D: Pioneer Letter Home

30 min.
individually

Write a short letter to friends back in Baltimore. Try to describe the pioneer's attitude toward wilderness and the settling of the frontier. Describe possible interactions with the environment. Tell about the journey westward.

July 15, 1862

Dear _____,



ACTIVITY E: Search for Solitude

10 min.
individual

Describe this special place or hideout. You may also sketch or draw all or part of this place.



ACTIVITY F: Management Challenges for Federal Agencies (p. 1)

20 min.
pairs

1. Four agencies are responsible for the management of most of our public, federally-owned lands. These are:
 - U.S. Department of Agriculture, Forest Service (FS). An agency that administers and manages National Forests and Grasslands for the maintenance, production, and protection of forest and grassland resources, such as timber, wildlife and fish, water, grazing land, minerals and recreation opportunities.
 - U.S. Department of Interior, National Park Service (NPS). An agency that administers national parks, monuments, historical sites, scenic rivers, preserves, seashores, recreation areas, etc., for their natural, historical, and recreational value.
 - Bureau of Land Management (BLM). An agency that administers and manages public lands under multiple-use principles, including timber and mineral production, wildlife management, grazing, and recreation.
 - Fish and Wildlife Service (FWS). An agency that administers the development and management of a system of wildlife refuges and fish hatcheries for migratory birds, game fishes, and endangered species; also oversees research, development, and law enforcement related to wildlife.



ACTIVITY F: Management Challenges for Federal Agencies (p. 2)

Each of the four agencies develops its own plans and policies to help manage the lands for which it is responsible, including its Wilderness areas. Because each agency has several different purposes or uses for which their lands are managed, conflicts and challenges about how to best manage them in certain situations can occur.

Below are several hypothetical situations in which a management agency must make a complicated Wilderness management decision. Write down your ideas and thoughts about each situation and /or what you would do.

1. To prevent the popular Sunset Wilderness Area from being “loved to death” by the approximately twenty thousand visitors who come there each year, the Bureau of Land Management must decide whether or not to institute a permit system that will limit the size of groups and numbers of visitors. Local recreationists who have used the area for years are quite unhappy about the limitations and restrictions being put on their options for Wilderness experiences. A public meeting to discuss the permit system will soon be held.

2. Within the Falling Water National Park is a National Recreation Area where popular helicopter flights enable tourists to enjoy a breathtaking “bird's eye view” of a spectacular waterfall and gorge. The helicopters' flight plan from the heliport to the waterfall takes them along a Wilderness Area boundary. Backcountry visitors to the Wilderness Area complain that noise from the helicopters disturb the quiet and feeling of solitude that they came to the Wilderness to find. Park Service managers face a dilemma about whether to make management decisions based on National Recreation Area or Wilderness Area priorities and regulations.

3. Scientists have been involved with a three year study of a rare and endangered plant that exists within the Green Meadows Wilderness Area of the Orion National Forest. A winter storm and flood event has wiped out the existing trail into the study area. Many large logs and other thick and tangled debris lay across the only pathway along the river to where the rare plant study is to continue. The study is at a crucial stage and the scientists must get in within a week or all their previous investigations will be wasted. They want the U.S. Forest Service to change its policy of not allowing mechanical chainsaws in this Wilderness Area so that the logs and debris can more quickly be removed.

4. At the Big Prairie Wilderness Wildlife Refuge, a serious infestation of mosquitoes known to be carrying a disease that could be deadly to the antelope herds is getting out of control. The only known way to deal effectively with the mosquitoes is to either use an airplane to spray a pesticide over the infested areas or to dig deep ditches and install culverts to drain away the waters where the mosquitoes eggs are laid. Both these measures would contradict regulations of the Wilderness management plan that was adopted for the area.



ACTIVITY G: Wilderness Myths

5 min.
individual

Look through the following items and mark (X) the ones that are allowed inside Wilderness:

Travel Methods

- _____ Foot
- _____ Horseback
- _____ Bicycle
- _____ Aircraft
- _____ Motorcycle
- _____ Boat
- _____ Four wheel drive vehicle
- _____ Snowmobile
- _____ Wheelchair
- _____ Mountain bike
- _____ Parasails
- _____ Wagons

Activities

- _____ Hunting and Fishing
- _____ Energy Development Projects (Dams, Powerlines, Impoundments)
- _____ Mining
- _____ Outfitting and Guide Operations
- _____ Fire, Insect, and Disease Control
- _____ Livestock Grazing
- _____ Roadbuilding
- _____ Trail Construction
- _____ Cabins or Shelters
- _____ Restroom Facilities
- _____ Fences



ACTIVITY G: "Key"

Look through the following items and mark (X) the ones that are allowed inside Wilderness:

Travel Methods

Foot

Horseback

Bicycle

Aircraft

Motorcycle

Boat

Four wheel drive vehicle

Snowmobile * on a case-by-case basis, waivers can be obtained for disabled users

Wheelchair

Mountain bike

Parasails

Wagons

Activities

Hunting and Fishing

Energy Development Projects (Dams, Powerlines, Impoundments)

Mining

Outfitting and Guide Operations

Fire, Insect, and Disease Control

Livestock Grazing

Roadbuilding

Trail Construction

Cabins or Shelters

Restroom Facilities

Fences



ACTIVITY G: Wilderness Act Fact Sheet

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which;

1. generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable
2. has outstanding opportunities for solitude or a primitive and unconfined type of recreation
3. has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition
4. may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value

from 1964 Wilderness Act

Investigating Your Environment
Wilderness



ACTIVITY H: You're the Ranger

25 min.
small groups

You're the ranger! List some possible management options. Think. Are you educating, regulating, or eliminating users? Remember that Wilderness is to be managed so that human influence and impact is "substantially unnoticeable" and the area offers opportunities for solitude and primitive, unconfined types of recreation. (see also Activity G: Wilderness Act Fact Sheet)

Management Option

(example) Limit group size

Desired Result

Lessen biological and social impacts



ACTIVITY I: The Lone Wolf

10 min.
individual

List some natural characteristics about this area that would benefit you as a wolf. What do you need to survive and thrive?

Characteristic

Benefit



ACTIVITY K: Change With Time

10 min.
individual

Use all your creative energy and thought to share what it would be like in the Wilderness at the following times. You may draw, sketch, write poetry, etc. How would the Wilderness be the same or different at these different times?

at night?

in a lightning storm?

in the winter?

next spring?

in a fire?

in 25 years?

in 50 years?

in 100 years?

other:



ACTIVITY L: Impacts and Traces

How could your actions influence these different aspects of an undeveloped or wilderness area? List the possible impacts and preventive measures associated with human use of an undeveloped or wilderness area. There may be more than one impact or preventive measure.

<u>Aspects</u>	<u>Impact</u>	<u>Preventive Measure</u>
Wildlife		
Alpine Meadows		
Mountain Streams		
Lakeshores		
Personal Solitude		
Excellent Fishing Waters		
Glaciers, Alpine Tundra, Moraine Areas		



ACTIVITY M: Recycling in the Wilderness

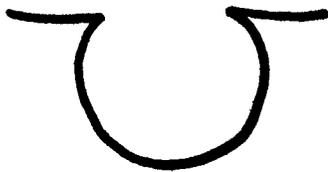
individual

Individuals

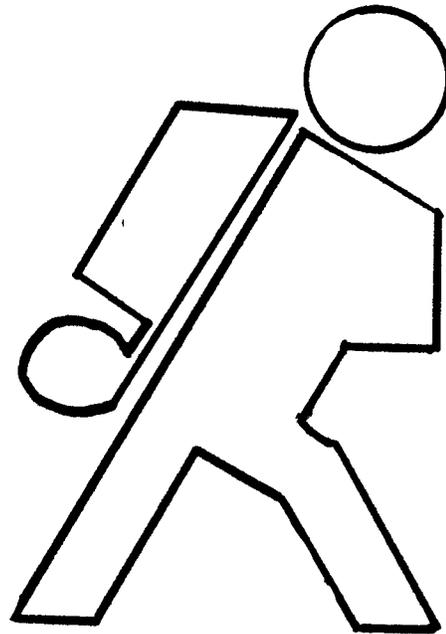
How would you dispose of the following waste items? Write the item letter in a picture corresponding with the proper disposal technique.

- a. aluminum foil
- b. cigarette filter
- c. paper box
- d. human waste
- e. foil lined cocoa package
- f. nylon shoe string
- g. paper candy wrapper
- h. plastic bag
- i. pull tab
- j. freeze dried food package
- k. tin can
- l. plastic spoon
- m. used disposable diapers
- n. orange peels
- o. styrofoam container
- p. nutshells

Burn It



Bury It



Pack It Out

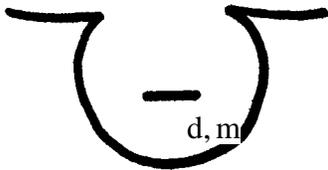
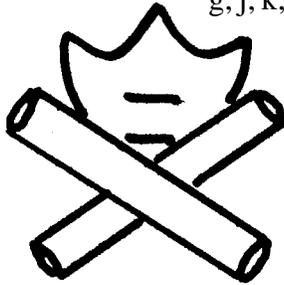
ACTIVITY M: "Key"

Individuals

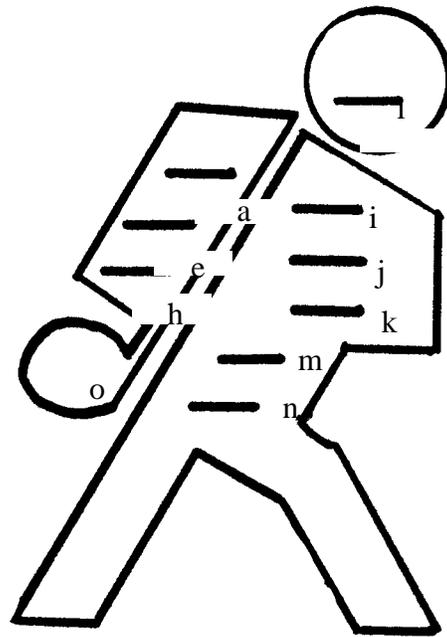
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- k. tin can
- l. plastic spoon
- m. used disposable diapers
- n. orange peels
- o. styrofoam container
- p. nutshells

Burn It a, b, c, e, f
g, j, k, m



Bury It



Pack It Out

p -- burn or pack out, but don't drop on ground as they don't decompose swiftly

a, e, j, k, n -- all can be burned to lessen load and remove food smell, but remains must be cooled and packed out

d -- discuss proper manner for disposing of human waste

m -- if you are making a long trip, proper management of diapers is necessary. Strip of plastic, pack it out. Paper liner that is next to plastic can be burned; liner containing human waste urine only can be burned (not pleasant); fecal material carry out or bury in some sites as adult waste

ACTIVITY N: On Nature's Terms

10 min.
small group

Would you know how to deal with these situations? Define potential problems and hazards. List some possible precautions you would take.

Situation #1.

You decide the lake you are looking for is over this last ridge. You head up the steep grassy slope and arrive at the top. The lake is in view now. But first you must get through the boulder field below. And the stream you must cross is still swollen from spring runoff. Darkness falls as you arrive at the lake.

Situation #2.

The thick undergrowth of alder seems to be ten feet high in places. You swim your way through, not sure where you're going. A black bear cub pops up out of nowhere. You hurry to escape the brush and make it into the forest. You find yourself face to face with the black bear sow and she advances toward you. You run off through the woods.

Situation #3.

This early June hike takes you right into a snow field. The trail up over Friday Pass is all covered with snow. You stop for a break and study your map. Unfortunately you forgot the compass and have difficulty orienting yourself. You feel a tickle on the back of your neck and discover an imbedded tick. The sky turns dark and lightning begins to strike all around you. A steady rain begins to soak all your clothing.

Situation #4.

You've read in a newspaper article that the climb up Mt. Adams is "a stroll". You've been driving for hours and are in a hurry to start climbing so you don't stop at the ranger station to register. It's a warm sunny day, so you're wearing tennis shoes and shorts. You don't want to carry too much extra weight, so you leave your jacket and extra food in the car, taking along your camera and one water bottle. By 2:00 p.m. you're just getting to the snowfield, still several hours from the summit where threatening clouds have begun to gather. A cool wind has begun to blow and you're tired and hungry, but determined to make it to the top. You stop for a drink of water and realize that you only have 1/4 of a canteen left.

Situation #5.

You're hiking in a new area, but have borrowed a map from a friend and plan to take a good look at it when you take your first snack break. You come to a trail junction and take the unmarked fork. After climbing over several logs across the trail, fording a difficult creek, and wading through a marshy meadow, you're thoroughly aggravated with the poor condition of the trail and determined to express yourself to the next Wilderness Ranger that you see! When you finally stop to snack and study the map, you realize that a corner of it is missing (the dog?) — apparently the area that you're hiking. You also read that there are unmaintained trails in the area that have been abandoned because they were impacting sensitive areas.



ACTIVITY O: Packing Light

10 min.
individual or small group

Look at the following list of items and their associated weights. Decide which items are essential and nonessential for a 3 day backpack trip. Then prioritize (1,2,3,...) the items.

Item		
Nylon tent	6	_____
Canvas tent	25	_____
Canned food	30	_____
Freeze dried food	7	_____
Iron skillet and plates	7	_____
Aluminum cooking set and plates	3	_____
Eating utensils	1	_____
Foam pad	2	_____
Army cot	12	_____
Polyester sleeping bag	4	_____
Cotton sleeping bag	6	_____
Metal bucket	3	_____
Nylon bucket	1	_____
Backpack with steel frame	10	_____
Backpack with aluminum frame	4	_____
Clothes	5	_____
Raincoat	2	_____
Backpack stove	2	_____
Flashlight	1	_____
Matches, first aid kit, knife	1	_____
Map and compass	1	_____
	YOUR TOTAL	_____
Weight (pounds)		

