

Wilderness Investigation #4

Preservation of their Wilderness Character



Lake Clark Wilderness; Image #1281

Essential Question: *Does wilderness have value if I never go there?*

Arthur Carhart National Wilderness Training Center's
Wilderness Investigations
A Subject-Integrated Curriculum for Grades 5 - 8

Wilderness What's Up?
Investigation #4 Note to Parents

Note to Parents

Dear Parents,

Your child continues their involvement with Wilderness Investigations. They are beginning their fourth investigation now. Listed below are all five investigations. The current investigation is in **bold** print.

1. *Preservation and Protection in their Natural Condition*
 - An exploration of the wild/wilderness continuum with a special focus on the Wilderness Act of 1964 and what wilderness designation means as *...an area where the earth and its community of life are untrammelled by man...*
2. *For the American People of Present and Future Generations*
 - As U.S. citizens we all enjoy wilderness rights, privileges, and responsibilities because it has been preserved *for the American people of present and future generations.*
3. *Outstanding Opportunities*
 - Wilderness as a place of *outstanding opportunities* to experience things that can only be experienced there.
4. **Preservation of their Wilderness Character**
 - **Places where *preservation of wilderness character* is first and foremost.**
 - **Priceless *benefits* for individual people, communities, and ecosystems.**
5. *Our Wilderness Heritage*
 - Preservation and protection of wilderness are selfless and patriotic acts for the benefit of others (human and non-human; biotic and abiotic) and is *one sign of a maturing democracy.*

Read on to find out what's going on during Wilderness Investigation #4 and thanks again for supporting *Wilderness Investigations!*

Sincerely,

The Creators of *Wilderness Investigations*
(Arthur Carhart National Wilderness Training Center)

Wilderness Investigation #4 Overview

In Wilderness Investigation #4 your student focuses on the preservation of wilderness character that is the mandate given to those who manage our nation's designated wilderness. Particularly, students investigate:

- The elements of wilderness character;
- Wilderness values that go beyond human use and needs;
- Culture and wilderness.

Upcoming educational experiences related to this topic:

- Students will design their own wilderness areas and explore outstanding opportunities afforded humans in that place during their in-class investigation.
- Focus on writer/naturalist John Muir and his influence on the modern wilderness movement during the *Wilderness Hero* segment.
- After studying the concept of preserving wilderness character, students will survey the status of that character in a designated wilderness or place with wilderness elements.
- A sampler of our nation's wilderness areas continues as students learn about Alaska's Maurille Islands Wilderness.

Many projects and assignments will be completed as part of these educational experiences.

Invitation to *Wilderness Show & Tell*

This space reserved for teachers to place their specific *Wilderness Show & Tell* information.

Discussion Ideas

- In-Class Investigation
 - If you don't consider human use and needs, what is the value of designated wilderness?
 - Can you tell me any of the positive impacts wilderness has on ecosystems?
 - What is the connection between indigenous people and wilderness?
 - By the way, what does INDIGENOUS mean?
 - Did a representative of an indigenous group visit your class? Can you share with me what they spoke about?
- John Muir-Wilderness Hero
 - Tell me a few things about John Muir.
 - How did Muir impact the movement to designate wilderness?
- Local Investigation
 - Where did your group go to have their wilderness experience? Describe it to me.
 - I understand you were checking out how well preserved the wilderness character of the place is being maintained. What did you find?
- Maurille Islands Wilderness Profile
 - Can you show me where this wilderness is on a map of Alaska?
 - If we went there, how might we spend our time?

Outdoor Activity Ideas

- Have your student take you to visit the wilderness area they visited as part of WI #4.
- Make a list of goals or guidelines for *managing* your family's yard.
 - Next, make a list of tasks that need to be accomplished in order to reach those goals.
 - Finally, set a date to assess how the family is doing as they work to reach their goals.

Project Ideas

- Organize and host a *Wilderness Movie Night* for neighborhood families.
 - Visit your local library or federal agency and see if they have films available that focus on wilderness.
 - Get out the popcorn and enjoy the show(s).

Resources for a More In-depth Topic Exploration

- *Last Child in the Woods*; by Richard Louv; Algonquin Books; 2005.
 - Popular book about why young people need to get outdoors!

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Classroom Investigation #4 ***Preservation of their Wilderness Character***

Investigation Goals

The teacher will address:

- ...the value of wilderness apart from human use and need values;
- ...the positive impact of wilderness on ecosystems;
- ...the connection of Indigenous cultures with wilderness;
- ...the emerging 21st Century wilderness culture.

Time Requirement

Part 1: 1 - 2 hours (Can be broken into two or more sessions)

Part 2: To be determined by the teacher

National Standards Addressed

Environmental Education: Strands 1 *Learners are able to question, analyze and interpret information. 2.2C Learners understand basic ways in which organisms are related to their environments. 2.3B Learners understand that experiences and places may be interpreted differently by people with different cultural backgrounds.*

Geography: NSS-G.K-12.2 *Understands how culture and experience influence people's perceptions of places and regions. NSS-G.K-12.6 Understand how to apply geography to interpret the past.*

Language Arts: NL-ENG.K-12.7 *Students develop and conduct research on issues and interests by generating ideas and questions...*

Science: NS.5-8.3 *Students will develop an understanding of ecosystems...*

Materials/Resources Needed and Pre-Investigation Tasks

- Poster board, pencils, colored pencils, etc. for group project (in Part 1) OR computers/mapmaking software or download (i.e. Mapmaker Pro).
- Invite a representative of an Indigenous group from your area or region to share creation stories (where and when allowable) and stories that came out of wilderness (for Part 2).
- *American Values American Wilderness* DVD (for Part 2)

Teacher Background

Wilderness, although declared in the Wilderness Act to be *for the American people of present and future generations*, is defined in that same document 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*. How can one balance these two ideas?

1. ...for people of present and future generations;
2. ...where man is just a visitor who does not remain.

Perhaps writer and naturalist Edward Abbey stated it best in his book about desert wilderness, *Desert Solitaire*: “A man could be a lover and defender of the wilderness without ever in his lifetime leaving the boundaries of asphalt, power lines and right angle surfaces. We need wilderness whether or not we ever set foot in it. We need a refuge even though we may never need to go there. I may never in my life get to Alaska, for example, but I am grateful that it’s there.”

While Wilderness Investigation #3 looked at the outstanding wilderness opportunities afforded humans (recreation, solitude, economic, etc.) this classroom investigation explores the values of wilderness apart from those. At the end of this lesson/activity, we come back to witness ancient and future human connections to wilderness. To preserve wilderness for its *wilderness character* impacts landscapes, ecosystems, and human beings in positive ways and to know and understand these things is the endpoint of this classroom investigation.

Safety Heads-Up

When surveying the public (Part 2) students need to be aware of safety concerns related to going into people’s homes, conversing online, etc. Take time to prepare them to be cautious and aware of dangerous situations.

Step-by-Step Presentation Instructions

PART ONE

Ask students to make a list of five places they've never been.

- It may be wise to narrow their choices to natural landscapes, historic sites, wonders of human construction (i.e. The Great Wall of China), etc.

Next, **have them** place a check next to the 2 or 3 places on their lists that they feel they are least likely to visit during their lives.

Share lists and brainstorm the merits of places mentioned.

Discuss whether these places matter or not since one might never go there and experience them.

- Bring out the merit of knowing that there are wondrous, special, even magical places and that this *knowing* can be enough to trigger imagination and even love.

Ask: (Choose one of the places listed and well-known to students and focus on that place.)

- If you heard that this place was in need of attention to preserve it for the future would you be willing to donate if you could?
- Why or why not?
- Would it make a difference to you if you knew you would never experience the place first-hand?

Bring the discussion around to the idea that we often choose to act selflessly (as opposed to selfishly) and in positive ways to take care of things we really value.

- Define and compare the words and the actions that go with them.

Divide students into groups of 4 or 5 students.

- Challenge them to list the many ways humans use wilderness (within 60 seconds).
- Remind them of Wilderness Investigation #3.
- Groups make lists.

Acknowledge the lists of human wilderness uses as they are shared.

Discuss *wilderness character* as outlined in the Wilderness Act:

...and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their **wilderness character**...

- What do you think *wilderness character* might be?
 - Accept all reasonable input.
 - Lead discussion to the following:

Wilderness Character is the combination of the following qualities (a wilderness equation):

$$\begin{array}{c}
 \text{Untrammeled} \\
 + \\
 \text{Undeveloped} \\
 + \\
 \text{Natural} \\
 + \\
 \text{A place of solitude or primitive and unconfined recreation} \\
 + \\
 \text{Containing unique attributes or other features} \\
 = \\
 \text{WILDERNESS CHARACTER}
 \end{array}$$

Point out that:

“...wilderness has many component parts that are each impressive, but together they are extraordinary. The whole is greater than the sum of the parts.”

- Peter Landras

Prepare students to design their own wilderness areas:

- Review what is not legal or acceptable in designated wilderness (Refer to the Wilderness Act or go to Wilderness.net as needed).
- Organize students into working groups or use groups organized earlier.
- Tell them that they are to design a wilderness area that exemplifies what they’ve learned about wilderness areas so far (including *wilderness character*).
 - Remind them of the various Wilderness Profiles so that they have a broad view of the landscapes that wilderness occupy.
- Construct a birds-eye-view of the wilderness, locate main landscape features (mountains, rivers, lakes, canyons, etc.) and a few of the human-made features (trails, campsites, etc.) if they choose to have them.
 - Remind students that roads, motor vehicles, and mechanical transport—including mountain bikes—is not allowed (Section 4c).
- After the landscape is created, construct a *Human Use Key* that lists appropriate uses as defined in the Wilderness Act and show where they take place by placing keyed items within the wilderness.
- Clarify assignment by asking and answering questions.

Provide poster board or large sheets of paper, pencils, colored pencils, etc. OR use online mapmaking programs (i.e. *Mapmaker Pro*).

Give time for groups to work.

Have groups share their wilderness areas.

- Make suggestions about additions or deletions so that final products represent wilderness accurately.

Give the following follow-up challenge:

- If you took away all human uses in your wilderness what other values would there be?

NOTE: This is a sophisticated discussion item. Let individual groups debate/come up with ideas before opening a classroom discussion.

- You may need to provide an example to get students moving in the right direction:
EXAMPLE: Because natural processes are at work in wilderness, fire periodically moves through an area.
 - If fire were removed, many deciduous plants, like willow and aspen, would disappear or have reduced abundance.
 - Those animals (like beaver) that depend on these plants disappear as their habitat needs disappear.
 - The wilderness fires allow the beaver to exist. As they do they build dams, create ponds and wetlands, and ultimately improve water quality downstream to the benefit of plants, wildlife and perhaps even humans!

Talk about student ideas.

- Reinforce the idea that wilderness has values separate from human use, enjoyment, and needs.
- Remind students that the living (biotic) and non-living (abiotic) parts of a place have rights under the Wilderness Act:
 - *...an area where the earth and its community of life are untrammelled by man;*
 - *...managed so as to preserve its natural conditions.*
(Wilderness Act; Definition of Wilderness section)

Review ECOSYSTEM:

All the plants and animals in a particular area, considered as a system with parts that depend on one another.

- From student examples, draw out those that illustrate a positive ecosystem impact because of wilderness statutes and management.

PART TWO

Discuss the meaning of the word *indigenous* as it relates to people.

- Definition: *Indigenous people have lived in a place for a very long time. In many places, other people came from other places and either lived with the indigenous population or displaced them altogether.*
- Example: The Bitterroot Salish of western Montana may have been in their ancestral homeland from 9,000 to 15,000 years before non-Indian people arrived. Over the course of less than 100 years the Bitterroot Salish were removed from most of their homeland and placed on a small segment of that place (Flathead Reservation). Shortly after that, parts of this already-reduced landscape were made available to non-Indian newcomers.

Point out that there are and have been indigenous populations all over the world and that their ancestors, if traced back far enough, were once indigenous to some place.

Suggest that because indigenous people had been in their place for so long it is likely that most if not almost all of their places were wilderness or places where natural conditions were the norm.

- Among many cultures from around the world creation stories, cultural beliefs, and ways of viewing the world came out of or are set in what we would consider wilderness.
 - Examples: Creation stories of the Blackfeet (MT), Old Testament people (Middle East), Aboriginal Australians, Nez Perce (Idaho/Eastern WA & OR), Matis (Peru), Picts (Scotland), Zulu (Africa) and so forth.

Locate Israel/Palestine/the Middle East on a world map.

- Bring out that this is where several of the world's main religions arose (Judaism, Islam, Christianity).
- Every year thousands of people from around the world visit. These *pilgrimages* take place even with war-torn landscapes and people in conflict. This is the land out of which their belief systems arose.
 - People want to preserve these places because they are sacred to them.

Add that indigenous people who are not too far removed (by time and/or by distance) from their ancestral wilderness homelands (i.e. Bitterroot Salish) may also have deep and spiritual connections to them.

- Why? Their culture, their history, their ancestors--all are *of* these wilderness places and because they are relatively untouched are more easily accessed and experienced.

- And, in many cases, this is where the ancestors have been placed when they pass on.
- Wilderness is sacred, a living expression of who they are and will be.
- Let students know that they will soon learn about the first Tribal Wilderness in the Mission Mountains of Montana (Wilderness Profile #5).

Ask: Do you think we ought to honor and respect wilderness for the indigenous people who now and/or in the past came from them?

- Discuss and clarify respect for all places because they were all once wilderness and still contain some wilderness elements and certainly contain cultural elements.

Introduce an Indigenous guest from the area/region who can relate appropriate stories based in wilderness if you were able to make that connection.

- Discuss respect for other cultures, stories, etc. before the guest arrives.
- Have students be prepared to ask questions about the represented culture and their connection to wilderness in the past and in the present.

Suggest that in this century there is an emerging *Wilderness Culture* made up of people who visit and support wilderness.

- Re-show segments of *American Values American Wilderness* where diverse people speak in support of wilderness.

Help students develop questions for their online *Wilderness Survey*.

- Brainstorm questions to ask wilderness users and supporters under the following headings:
 - Part 1: How they use wilderness
 - Part 2: How they support wilderness management
 - Part 3: How they envision wilderness use in the future
 - NOTE: This survey is for wilderness supporters/users. Another survey could be produced for the more general population to assess their views about wilderness. This effort, however, is designed to assess this particular user group.
- Choose 3 or 4 questions to fit into each of the three categories.
 - Online survey sites will provide survey templates. They will also help students organize a recipient list and may provide a data base for collecting, organizing, and synthesizing responses.
- Have each student find 1 - 3 wilderness supporters/users who they can add to the recipient list.

- Online surveys allow recipients to respond if they choose but do not apply pressure to respond should they choose otherwise.
- If your school does not have access to an online survey service students can produce surveys and do them in-person, by phone, or via email.
 - Don't forget safety protocols (i.e. adults always accompany students when conducting in-person surveys).

Review survey findings.

- Use this as an opportunity to create graphs, charts, and presentations of data using the best technology available.

Point out that in the early 21st Century there is a strong wilderness culture.

Conclude this investigation by pointing out that:

- Wilderness has value apart from those humans might perceive or personally experience.
- Wilderness can have a positive impact on ecosystems.
- Indigenous people often have a deep cultural connection with wilderness.
- THEY are part of an emerging wilderness culture today!

Extension Ideas

- Visit a popular wilderness trailhead or attend a meeting of a local wilderness group and pose survey questions and/or share findings.
- Research cultural stories from various groups and look for wilderness connections.
- Investigate designated wilderness in other countries. How are they set aside/managed/used in comparison to those in the United States? Are there wilderness areas where indigenous people continue to live or at least exercise some cultural rights?

Resources for a More In-depth Topic Exploration

Power and Place: Indian Education in America; by Vine Deloria, Jr. and Danial R. Wildcat; American Indian Graduate Center and Fulcrum Resources; 2001.

- An excellent resource for teachers who want to explore, amongst other topics, the cultural connection of Indian people and place (including wilderness) in the United States.

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Wilderness Hero #4
John Muir



John Muir Wilderness
(from Wilderness.net; Image #1955)

Instructions for the teacher:

John Muir is one of the iconic figures in American wilderness history. Although he died 50 years before the Wilderness Act was signed into law, his almost mythical wilderness lifestyle, prolific wilderness writing, and co-founding of the Sierra Club in 1892 made him the face of wilderness preservation for many future wilderness advocates including some of those who helped bring about the reality of official wilderness designation.

To help students get to know this historic wilderness figure, choose one or more of the following:

- Photocopy and hand out *Wilderness Hero Sheet #4* to each student.
 - Based on the information found there, have them write a short biographical essay about John Muir.
 - Use the *Writing a Wilderness Hero Biography (Prompt Page)* located in the Appendix if students are just

learning to write biographies and need a little assistance.

- Download a blackline map of the World. Have students find and label the following places important in John Muir's life: Dunbar, Scotland; Madison, Wisconsin; Indianapolis, Indiana; Yosemite National Park, California (and others they discover). Next, have them research Muir's life and write a short paragraph explaining what significant life-event took place in each location.
- Use the handout as the basis of a short mini-lesson about John Muir.
 - To enhance your lesson, go online or visit your school/local library for books by and/or about him.
- Have students write, film, edit and share a podcast about John Muir.
 - Have students use information found on their website and on *Wilderness Hero Sheet #4*.
- Get one of John Muir's books and read selected passages that illustrate Muir's love of wild places. Especially interesting essays include his account of riding out a windstorm at the top of a tree, climbing up Yosemite Falls, and wandering the wilds of Alaska with the stray dog Stickeen.
 - After reading a passage or essay, discuss what Muir was saying and feeling.
 - Compare his wilderness experiences with how people might experience wilderness today.
- Get copies of Muir's autobiography *The Story of My Childhood and Youth* and study with students how his early experiences shaped him into the person he later became.
- Muir's writing is in a style that may be unfamiliar with today's students. After exposing them to his often flowery, passionate, and very descriptive writing, have students try their hand at writing about a wild place or wild experience using their *own* style.
- Create a John Muir--Wilderness Hero bulletin board.
 - Feature projects and information about him.
- Have students study and then place their copy of *Wilderness Hero #4* in their Wilderness Investigations Folder.

Wilderness Hero #4
John Muir
1838 - 1914



John Muir
(from Wilderness.net; Image #134)

Introduction to a Hero

John Muir was born in Dunbar, Scotland April 21, 1838. He attended local schools there until he was 11 years old. He loved to wander the Scottish countryside, with his beloved grandfather, exploring and marveling at the things he found. In 1849 the Muir family immigrated to the United States and moved onto a farm near Portage, Wisconsin.

Muir's explorations continued in this new place. His younger brother Davey often accompanied him. His home life was challenging because his father was very strict and often overbearing. By the time he was in his early teens John had memorized all of the New Testament and most of the Old Testament. He, like the other members of his family, worked from dawn to dusk on their farm. Muir kept the creative side of himself busy by exploring, trying to figure out the mysteries of the natural world, reading, and inventing.

John Muir once walked from the college town of Madison, Wisconsin throughout the northern United States and parts of Canada just to see what was out there. Later he walked all the way to Florida. Eventually he

ended up in San Francisco (after a long trip by ship) and here he walked to what is now Yosemite National Park. There Muir found his short-term physical home and his life-long spiritual place.

Throughout Muir's life he explored new wild places and then wrote about them. Eventually his writings were published and many who read them were motivated to help work for state and federal protection of places like Yosemite National Park, Petrified Forest National Park, Mount Rainier National Park, Grand Canyon National Park and many other special landscapes.

John Muir co-founded the Sierra Club in 1892 with several of his supporters to "do something for wildness and make the mountains glad." In 1903 President Theodore Roosevelt visited and camped with Muir. During that time Muir helped shape many of the President's future conservation programs.

John Muir died in 1914 in Los Angeles, California where he was visiting one of his daughters. Although not everyone loved the outspoken and sometimes *wild* John Muir, it is clear that he helped move the country towards an attitude that would allow the Wilderness Act to become law 50 years after his death. Today Muir's writings continue to inspire wilderness lovers.

Learn more about *Wilderness Hero* John Muir

- A young John Muir once did an experiment to see if cats really did have nine lives.
- John Muir invented an alarm clock bed that would *dump* its occupants onto the floor when it was time to get up.
- John Muir, working as a factory boss in Indianapolis, lost his eyesight for a while as the result of a factory accident.
- One time John Muir rode an avalanche down a snowy mountainside and lived.
- John Muir would often leave for month long (or longer) walks through wilderness with nothing but tea and bread in his pockets.

These stories and more are found in his many books. Check out your library for books by and about Muir and be ready for some great reading.

Local Investigation #4

Preservation of their Wilderness Character

Investigation Goals

The teacher/leader will:

- Arrange several small group, daylong wilderness trips to a designated wilderness or a larger group, daylong trip to a place with overwhelming wilderness attributes.
- Help students investigate how well the wilderness character of the destination is being maintained.
- Assist students as they prepare presentations of their findings to the appropriate wilderness management agency.

Time Requirement

Local Investigation

Pre-investigation: 1 hour

Field time: 1 day

Service-Learning Opportunity

Presentation preparation: To be determined by the teacher

Presentation: 1 hour or less

National Standards Addressed

Environmental Education: Strand 1

- Throughout this field investigation students will use *questioning, analysis, and interpretation skills* as they seek to assess the status of wilderness character.

Geography: NSS-G.K-12.1

- As students plan and participate in their wilderness activity they will *use maps and other geographic representations, tools and*

technologies to help them successfully experience a wilderness investigation.

History: NSS-USH.9-12.10 (This is a high school standard but still worth paying attention to)

- As students investigate the challenges of preserving wilderness character (as outlined in the Wilderness Act) they may gain insights into *recent developments in... domestic politics* as well as understanding of *economic, social and cultural developments in contemporary United States*.

Language Arts: NL-ENG.K-12.7

- As students gather information about wilderness character they will *evaluate data* in ways that will then allow them to organize presentations that *communicate their discoveries in ways that suit their purpose and audience*.

Science: NS.5-8.1

- The investigation of the preservation of wilderness character status is a perfect venue for developing and using *science inquiry* methodology.

Technology: NT.K-12.4

- As a main part of presentation preparation and facilitation, students will use *technology communication skills* to successfully *communicate information and ideas effectively to multiple audiences*.

Materials/Resources Needed and Pre-Investigation Tasks

- Make arrangements for the local investigation:
 - If you are close to a designated wilderness area, arrange to take small groups, over time (to allow all students to participate) for whole day investigations. Work with the management agency to organize appropriate group sizes and to solicit help from wilderness rangers. Be sure to arrange for a forum to share *wilderness character* findings.
 - If a designated wilderness is simply too far away, arrange to take students to a place that has wilderness attributes. Arrange details with the land manager (agency, private, etc.) that includes the visit as well as a forum for sharing wilderness character findings.
- Copies of destination maps

Teacher Background

The Wilderness Act states that wilderness administrators must manage wilderness in a way that preserves their *wilderness character*. This local investigation is designed to aid teachers in reinforcing that concept in student minds as they:

- Outline what wilderness character is and is not;
- Design a *Wilderness Character Investigation* to be conducted in a wilderness or wilderness-like location;
- Prepare a presentation of their findings;
- Make their presentations.

This is a real-world challenge and mirrors the kind of work wilderness administrators and their staff tackle every day. By going through this investigation students will experience a wilderness day with potential benefits for actual wilderness managers.

Safety Heads-Up

Wilderness is by definition... wild. Be sure you are aware of seasonal and location-specific safety issues and be prepared to address or avoid them. Communicate with the agency personnel that are charged with management of the wilderness you will visit. Be sure to keep group sizes within the limits set by wilderness managers.

Local Investigation Ideas

PRE-INVESTIGATION

Introduce the upcoming daylong wilderness trip:

- Announce that they will visit a designated wilderness or place with wilderness attributes.
 - Pass out maps and have small student groups gather around to study their destination.
 - Point out easily found locations in each map quadrant and, once students are comfortable with the maps, begin exploring more obscure details (particular peaks, drainages, trailheads, etc.).
 - Explain group size requirements and why.
 - Go over the schedules (if taking place over more than one day) so that students know when they're going.

Briefly **discuss** the *Wilderness Character Investigation*.

- Each field group will be assigned a certain area within the wilderness area in order to assess its *wilderness character* (a term from the Wilderness Act).
- First we better make sure we know what that means!

Ask: What are the elements of wilderness character?

- Pass out *Wilderness Character Brainstorming Sheets* to each student or teams of students.

Go over student responses adding and deleting items as needed.

- Create a master list that everyone can see based on correct responses.
- Refer back to the Wilderness Act as needed to help clarify what does and does not make-up *wilderness character*.
- Here are the *Five Qualities of Wilderness Character* with some examples of each. Compare student ideas and see if and where they fit in.
 1. Untrammeled
 - Not manipulated by human actions (weed spraying, fire control, predator control, etc.)
 2. Natural
 - Vegetation, wildlife, air, water, soil, and ecological processes go along as they always have without human influence
 3. Undeveloped
 - Without permanent improvements (no structures, machinery, aircraft, etc.)
 4. Outstanding Opportunities
 - Solitude (few people), primitive (unimproved camping areas), unconfined (wild)
 5. (May have) Unique Qualities
 - Ecological, geologic, scientific, educational, scenic, historical, cultural features (geothermal activity, ancient rock art, old mining evidence, fire regeneration, etc.)

Look at the master list and determine which items may be most easily investigated.

- Examples: Air quality (because of its transient nature) may be difficult to connect to a wilderness area; native/non-native plants may not be known by students well enough to make a judgment)

Create a *Status of Wilderness Character Checklist* composed of things to look for during the upcoming wilderness experience.

NOTE: Those chosen should provide a snapshot of how well its *wilderness character* is being preserved (as mandated by the Wilderness Act).

- Examples: _____ No permanent structures (list any seen)
_____ Vegetation seems to be living naturally
_____ Wildlife not collared
_____ Campgrounds are primitive

Arrange logistical details (transportation, gear, additional adult supervision, etc.) for the wilderness investigation.

FIELD TIME

Facilitate the wilderness investigation as students look at the status of wilderness character based on their pre-trip work.

Service-Learning Opportunities

PRESENTATION PREPARATION

Gather students and go over *Wilderness Character* findings.

- Look for areas of agreement as well as disagreement. Often it's a matter of interpretation rather than difference.

Assign each student group (the same groups that visited the same place on the same day) the task of organizing their findings and coming up with a creative way to present them to the management agency.

- See the PowerPoint listed under *Resources for a More In-Depth Exploration* as an example of one way to present.
- Challenge students to make their presentation method interesting, factual, entertaining, etc.
 - An original song, visual art piece, or short play are examples that would definitely catch the attention of the audience.

Provide time and support for presentation development.

- Connect with specific scholastic skills currently focused on.

PRESENTATION

Invite wilderness managers, parents, school administrators and other interested members of the community to attend *Wilderness Character Presentations*.*

Present an overview of the Wilderness Act and its reference to wilderness character before beginning presentations.

- A student or group of students who were not able to participate in the field experience may be especially well suited to present this portion.

Provide time for questions from the audience after each presentation.

*You may choose to make this part of the *Wilderness Show & Tell* segment of Wilderness Investigation #4.

Extension Ideas

- Arrange for additional presentations to a wider audience.
- Post presentations online (class or school websites) in order to reach a wider audience.

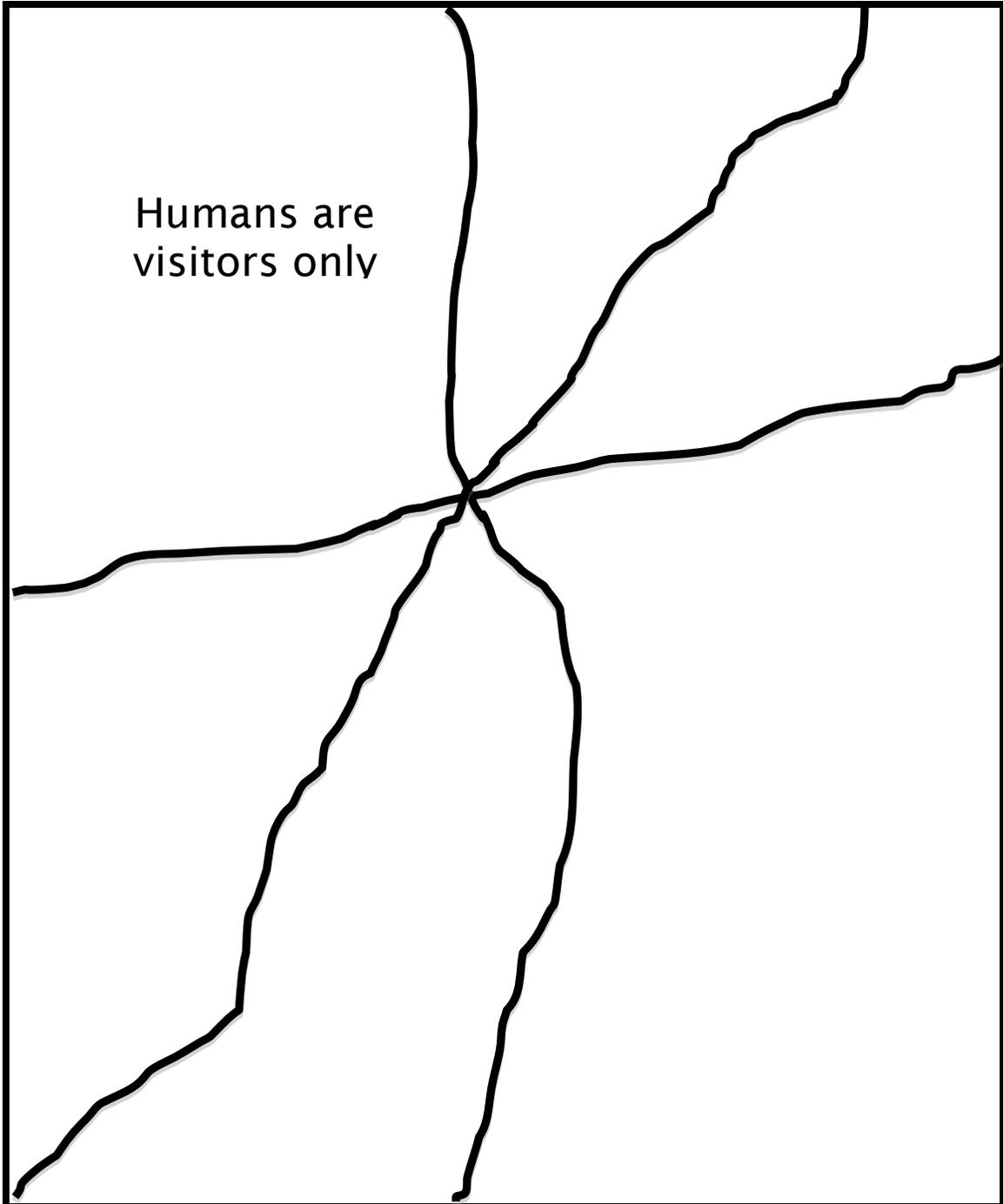
Resources for a More In-depth Topic Exploration

- *Monitoring Changes in Wilderness Character*; Downloadable PowerPoint presentation for wilderness managers; See Wilderness.net (Got to Training → Toolboxes → enter title of presentation).
 - The first half of this presentation may be useful for your own background and, depending on the sophistication of your students, for them as well. This is an excellent discussion of what makes up wilderness character.

Wilderness Character Brainstorming Sheets

Student(s): _____

Instructions: In each of the blank spaces below write one of the elements that make-up *wilderness character* (see example).



Wilderness Profile #4 ***Maurille Islands Wilderness***

Teacher background:

This group of 30 small islands is especially important as the effects of climate change come into play. Located south of Juneau and nestled near the coast the highest point rises just 400 feet above sea level. Designated by Congress in 1980 the Maurille Islands Wilderness covers 4,937 acres. Mature Sitka spruce and western hemlocks cover most of the islands. An abundant population of marine mammals, seabirds, bald eagles and numerous large mammals call these islands and the waters around them home at least part of the year. Generations of native peoples have used the area for hunting and gathering and, later, sea going ships seeking protective anchorage found safe harbor. The U.S. Forest Service administers this rainforest wonderland.

Instructions for the teacher:

To help students become familiar with the Maurille Islands Wilderness choose one or more of the following:

- Use information from *Teacher Background* and the *Student Information Sheet* to prepare and present a mini-lesson about this wilderness.
- If students have already started their *U.S. Wilderness Area Field Guide* (started in Wilderness Profile #1) have them add entries for the Maurille Islands Wilderness by choosing items from the list below:
 - Photocopy the *Student Information Sheet*, have students go through it and then conduct a discussion about the information found there.
 - Using the *Student Information Sheet*, have students choose one of the following creative projects:
 - The Maurille Islands Wilderness is temperate rainforest. Have students research this type of rainforest and compare/contrast with other rainforest types.

- After studying the Maurille Islands Wilderness, develop a presentation (poster, PowerPoint, comic strip, etc.) that features appropriate and popular wilderness activities for this place.
 - Create a travel plan for getting to and from the school location to the Maurille Islands Wilderness. Determine the best mode of travel (plane, car, train, bus or some combination) and then estimate a trip cost.
- Use the wilderness map, included with *Wilderness Investigations*, and have students locate Alaska and the Maurille Islands Wilderness. Provide blackline maps of the state. Have students identify and label important state features and draw in/label this wilderness.
- Have students choose one of the common animals of the Maurille Islands Wilderness (found on the *Student Information Sheet*) and have them research information about the animal. Next, using their research findings have them prepare a podcast to share what they've learned.
- Sea kayaking is a popular type of recreation and transportation in the Maurille Islands Wilderness. Have students research sea kayaking and the gear needed for a safe and enjoyable wilderness experience.
- If you've already started your *U.S Wilderness Area* bulletin board (see *Wilderness Profile #1*) then add information about this wilderness. If not, start your bulletin board now.
 - Good bulletin board items include maps, photos, written information, recreation ideas, and so forth.
- For more information about the Maurille Islands Wilderness go to www.wilderness.net.

Wilderness Profile #4
Maurille Islands Wilderness
Student Information Sheet



Maurille Islands Wilderness Rain Forest
(from Wilderness.net; Image #2890)

What's the story?

- Designated as Federally protected wilderness in 1980 by Congress.
- Managed by the U.S. Forest Service the area has a total of 4,937 acres.
- Located in Alaska along the coast south of Juneau.
- The 30 small islands, dots of land really, rise just 400 feet above sea level at their highest point.
- An abundant marine mammal population is found in wilderness waters at least part of the year, and includes the humpback whale, sea otter, Stellar's sea lion, and seal.
- Shorelines are generally rocky but the occasional windswept beach can be found. Boating in the wilderness is potentially dangerous but sea kayaking is popular.

- Tall stands of temperate rainforest cover most of the islands. Sitka spruce and western hemlock are the most common tree.
- The area receives copious amounts of rain and this makes this wilderness a challenging yet magical place to spend time.
- Besides sea mammals other animals can be found on the islands: black bear, black-tailed deer, wolves, assorted seabirds and bald eagles.
- Indigenous people have used the area historically to hunt and gather items for food, to be used as clothing, for building boats, and so forth.
- Camping is allowed in the wilderness as are the use of motorized boats and small floatplanes. There are no developed facilities or trails in the Maurille Islands Wilderness.

Wilderness Investigation #4 ***Show & Tell***

Instructions

At the conclusion of Wilderness Investigation #4 (*Preservation of their Wilderness Character*) work with students to set-up displays and presentations that showcase learning, skills, and experiences related to the investigation. Use this sheet as a planning template.

Projects, Presentations & Displays (Related to the Investigation)

Choose student projects from any or all of the segments of Wilderness Investigation #4 (and include items from WI #1, #2 and #3 if appropriate).

1. Classroom Investigation: Show *Student-Designed Wilderness Posters* and *Wilderness Surveys* (and survey results)
2. Wilderness Hero John Muir: *Wilderness Hero Sheet #4*; *Wilderness Hero* bulletin board; misc. *Wilderness Hero* projects.
3. Local Investigation: *Wilderness Character Brainstorming Sheets*; *Status of Wilderness Character Checklists*; *Status of Wilderness Character Presentations*.
4. Wilderness Profile--Maurille Islands Wilderness: Various *Wilderness Profile* projects.

Location of Event

Date(s)

Invitations

Note: Parents will have already been invited if you sent home the *Wilderness What's Up?* note at the beginning of this investigation. A reminder may be in order. Others to consider: school administrators, grandparents, other classes, resource people from agencies, nature center personnel, etc. Include thank you notes for those who have helped during Wilderness Investigation #4 and invite them to celebrate student learning about wilderness.

Equipment/Material/Resource Needs

Make a list of needs based on presentations and displays being featured.

Refreshments and other Logistical Details