Wilderness Investigation 5: Our Wilderness Heritage

America’s Wilderness

Image of the Mission Mountains Tribal Wilderness
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Investigation Summary:
Wilderness Investigation #5 introduces the story of America’s history of wilderness and the importance of protecting and preserving wild places. Students will develop a list of potential ways people can get involved in helping protect wild places. The class will conduct an interview of a local land manager to learn about different professions and the decisions made about wild places.

Note to Parents:
The Wilderness Investigations note for the parents provides parents with a brief overview of what students are studying about wilderness. The letter also gives suggestions for discussion topics and activities. This letter may be tailored for teachers’ specific needs.

Wilderness in the Classroom:
Students will study America’s history of protecting and valuing wilderness. They will also brainstorm ways that people can get involved in protecting and preserving wild places.

Wilderness Hero Study with discussion and extension ideas:
Students will learn about Aldo Leopold, his efforts to protect wilderness, and his influential writing about nature. They will read excerpts from A Sand County Almanac, and sketches here and there and reflect upon his message of the value of nature and a natural community.

Wilderness Outside of the Classroom:
Students will visit a wild place and speak with a land manager of a wild place. They will develop a list of questions and conduct an interview. Students will also present their previous findings from Wilderness Investigations to the land manager.

Wilderness Profile study with discussion and extension ideas:
The Mission Mountains Tribal Wilderness was the first wilderness designated by a tribe in the United States. Students will study some of the traditional uses and beliefs about nature. They will also examine the adaptations of wildlife during different seasons of the year.

Wilderness Show and Tell:
Teachers and students may share their observations, investigations, and ideas about wilderness with others. Each Wilderness Investigation is an opportunity to share the value of America’s wilderness and the Wilderness Act with others.
Note to Parents
Dear Parents and Guardians,
Your child is concluding a series of wilderness investigations. There are five total investigations. The current investigation is in bold print.

1. What is Wilderness?
   • Students will explore the characteristics of wilderness and learn about the Wilderness Act of 1964. What do we expect to find in wilderness?

2. Wilderness for All American People of Present and Future Generations
   • Students will study the concept of public lands and public spaces. Who can visit wilderness?

3. Outstanding Opportunities
   • Students will evaluate what people can do in wilderness. What can you do in wilderness?

4. Preservation of Wilderness Character
   • Students will examine the idea of wilderness character and how it applies to different wild places. Why is wilderness character important to protect?

5. Our Wilderness Heritage
   • Students will learn about America’s history of protecting and valuing wilderness. How can we get involved in preserving our wild places?

At the beginning of each investigation you will receive a letter about what your child is learning. The letter will provide you with ideas and information about how you can extend learning into your family, and inform you about school activities related to the investigations. Thank you for supporting Wilderness Investigations.

Sincerely,
The Creators of Wilderness Investigations
Wilderness Investigation #5: Out-of-School Extensions

Here are some ideas for at-home discussions and activities.

Discussion Ideas:

• What was North America like before non-Indians lived here?
• What types of jobs allow people to work outdoors? What types of jobs allow people to work in nature? What types of jobs allow people work with other people?
• Who was Aldo Leopold? What did he do for wilderness?
• Why is the Mission Mountains Tribal Wilderness a unique wild place?

Activity Idea #1: Visit a nature preserve or zoo.
Find a nature preserve or zoo in your community. Most wildlife is very good at hiding from people. A good way to see some types of wildlife is to visit a zoo. Can you find some types of wildlife that actually live in your local habitat?

Activity Idea #2: Go stargazing.
The night sky is a wonderful place to see wild things happening beyond our planet. Take a star chart and a blanket and spend some time in a dark place after the sun sets. Print a free star map: http://www.skymaps.com/

Activity Idea #3: Watch a watering hole
Wildlife often congregates around bodies of water. Sit quietly near a source of water and see what types of wildlife also visit the area. You might want to take your binoculars.
Wilderness in the Classroom

Overview: Students will study America’s history of protecting and valuing wilderness. They will also brainstorm ways that people can get involved in protecting and preserving wild places.

Teacher Goals: The teacher will...
- Talk about America's history of wilderness.
- Compile a list of ways people can help preserve and protect wild places.
- Facilitate a discussion about the value of helping protect wild places.

Learning Targets
- I can listen to information
- I can share and express my ideas.
- I can explain how people can help wild places.
- I can work with a group.

Standards Applied

<table>
<thead>
<tr>
<th>Common Core 4th Grade Reading Standard</th>
<th>Integration of Knowledge and Ideas 7: Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.</th>
</tr>
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<tbody>
<tr>
<td>Common Core 4th Grade Writing Standard</td>
<td>Research to Build and Present Knowledge 7: Conduct short research projects that build knowledge through investigation of different aspects of a topic.</td>
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<tr>
<td>Common Core 4th Grade Speaking and Listening Standard</td>
<td>Comprehension and Collaboration 1: Engage effectively in a range of collaborative discussions with diverse partners on grade 4 topics building on others’ ideas and expressing their own clearly. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.</td>
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<tr>
<td>National Environmental Education 4th Grade Guidelines</td>
<td>Strand 2.4 A: Identify ways in which human actions change the environment.</td>
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<td>Strand 3.1 A: Learners are able to identify and investigate issues in their local environments and communities. Identify and describe a current or historical environmental issue in their community. Use primary and secondary sources of information to explore the dilemma confronting people in a current or historical situation that involves the environment.</td>
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Estimated Time: 30 minutes

Materials:
- My Wild Places Journal for each student
Teacher Background Information:
The United States has a long history of people interacting with and protecting the wilderness. Americans were working hard to protect wild places long before the Wilderness Act was passed in 1964.

Before Europeans started to explore North America, indigenous peoples lived a traditional life of the land and often found solace in a deep spiritual connection with nature, wildlife, and natural forces. European exploration of the expansive American wilderness is characterized by discovery, physical change of the landscape and reflection upon the changes that took place. The value of our rugged wilderness has been written about, talked about, and fought for by thousands of people in the past century. America’s relationship with wild places continues today as people travel to the wilderness to hike, camp, fish, spend time with family and friends, and experience solitude civilization for some time.

Protecting our wild places is protecting our nation’s heritage. The National Preservation System established by the Wilderness Act of 1964 describes the value and necessity of protecting wilderness. All American citizens have a right to visit wild places, and we all have a duty to protect their wildness.
Teaching Sequence:
1. Introduce
Talk with the students about America’s history of wilderness preservation and protection. Use the Wilderness Map to help show how people moved westward.

The Story of America’s Wilderness

- North America was a vast, wild land full of wildlife, different habitats, and diverse climate for thousands of years.

- Native Americans had a close relationship with the land. Traditionally they lived sustainably with little environmental impact, and also changed the land by setting fires to encourage specific types of plants, hunted animals, and mined minerals and clay for different tools.

- Non-native people from Europe began to move west across North America starting in the early 1500’s. At first there were only a few people on the western frontier, but by the mid-1800s the number of people increased had and small towns began to dot the wild landscape.

- The first towns were usually in areas with lots of natural resources, such as water, fertile land, or minerals. The towns grew, paths between towns turned to roads and people had access to many different types of transportation, such as horses, wagons, trains, and cars. The wild places started to get smaller as the towns and farms grew larger.

- People started to notice the changes in the wild landscape and realized that they were irreversible. In 1872, America made a bold move by creating the first national park, Yellowstone. They wanted to protect our amazing and beautiful wild places for future generations.

- After many years of debate and re-writing, the Wilderness Act was passed in 1964 and created the National Wilderness Preservation System, which was designed to protect wilderness from development by humans and to keep them places wild forever.

- The United States is the only country in the world to have passed such a powerful document proclaiming our commitment to the value of wilderness. Wilderness is an American resource.
What do you think might have happened to wilderness areas if the Wilderness Act had not been passed in 1964? Is there more than one possible scenario?

Why is wilderness valuable?

2. **Brainstorm**
   In partnerships, ask students to brainstorm a list of ways people can help protect and preserve wild places we currently have and the environment. It may help to narrow the list to apply to people in their school. Consider what issues can be addressed that are specific to your school community and/or local environment. Students may record their ideas in their *My Wild Places Journals* on journal page 16.

Examples of ways students can help wild places and the environment:
- Walk or bike to work
- Pick up trash
- Start or encourage a recycling program
- Reuse items for art projects
- Bring or serve lunches in reusable containers
- Identify and remove non-native plants
- Start a native plant garden
- Conserve water by taking shorter showers
- Use reusable water bottles instead of one-use bottles.

3. **Share**
   Members of the class may share their ideas for how people can get involved in protecting and preserving wild places and the environment. Compile a class list on chart paper/whiteboard.

4. **Act** (Optional)
   In groups or as a class, select one or more items from the list of ways to help wild places. The magnitude of this project is up to you. Students could organize a trash clean-up project, that could happen on the same day as the land manager interview (*Wilderness Outside of the Classroom* part Wilderness Investigation #5) or they may decide to a school/classroom campaign to promote using reusable water bottles at school.
5. Discuss
Reflect on the value of taking action to protect our nation’s wild places. Preserving and protecting our designated wilderness is a patriotic act because we are protecting the most unique features of our country. The USA is distinct from all other countries in the world because about 5% of our country’s entire landmass is designated wilderness and will be protected forever. Our country continues to lead the world in wilderness protection. Other countries around the world have joined in the pursuit of protecting and designating wilderness.

Adaptations:
- Students may create “Get Involved!” posters, flyers, booklets, or presentations about ways people can get involved in protecting and preserving wild places and share them with other classes.
- Students may create an electronic version of their list. This may be in the form of a website, a blog post, or a podcast.

Resources:
- Wilderness Basics
  [http://nature.nps.gov/views/Classic/KCs/Wilderness/HTML/01_Intro.htm](http://nature.nps.gov/views/Classic/KCs/Wilderness/HTML/01_Intro.htm)
- Wilderness Stewardship
Wilderness Hero Study #5: Aldo Leopold

Use the wilderness hero concept map for your study of Aldo Leopold. Students may record their thoughts on journal page 21 in their My Wild Places Journals.

Discussion:
1. As a class or in small groups, revisit the list of qualities that describe a hero created in Wilderness Hero Study #1. You have learned about several different heroes. What is missing from the original list?

Are there any words that describe a hero that we should add to the list? Has your personal idea of a hero changed during the past few Wilderness Hero Studies? How so?

2. What did Aldo Leopold do? Why are his writings important for people to read? Why is Aldo Leopold considered a hero?

Extension Activity 1: Read an excerpt from A Sand County Almanac, and sketches here and there.

Aldo Leopold’s influential book is an example of thoughtful, non-fiction that examines nature and people’s relationship with the land. Students may write their own personal nature reflections as a response to Leopold’s writing.


Extension Activity 2: Wilderness Hero Fair

In small groups, students may create a short presentation, display or activity about one of the wilderness heroes. Invite another class to the Wilderness Hero Fair to share your knowledge about wilderness heroes.

Extension Activity 3: Heroes in the Future

Students may imagine what kinds of heroic qualities they want to be remembered for in the future. Students can write or sketch an image of what they project might be some of their heroic qualities in the future. Ask students to share or display their products.
Wilderness Hero Profile #5: Aldo Leopold

Aldo was born in Iowa and spent much of his youth exploring outdoors.

Aldo worked for the Forest Service and was known for promoting his ideas of how forests should be used responsibly.

He was one of the first people to write about land ethics, the idea that we have a choice to think about how our actions affect the land.

Aldo was instrumental in helping to designate the first wilderness area, the Gila Wilderness in New Mexico.

Aldo worked throughout his career to communicate the importance of setting aside lands for protection and preservation. His writings are still important today.

His writings have influenced law makers and citizens to protect and value the beauty of nature and wild places.

He wrote A Sand County Almanac, and Sketches Here and There.

1887-1948
Wilderness Outside of the Classroom

**Overview:** Students will visit a wild place and speak with a land manager of a wild place. They will develop a list of questions and conduct an interview. Students will also present their previous findings from Wilderness Investigations to the land manager.

**Teacher Goals:** The teacher will...

- Tell students about the job of a land manager.
- Help students develop a list of questions and jobs for conducting an interview.
- Organize an interview with a land manager.

**Learning Targets**

| I can listen to information. |
| I can record my observations and ideas. |
| I can list one or more responsibilities of a land manager. |
| I can articulate my thoughts and questions. |

**Standards Applied**

| Geography: Places and Regions NSS-G.K-12.2 | Understand the physical and human characteristics of places. Understand that people create regions to interpret Earth's complexity. |
| Geography: Environment and Society NSS-G.K-12.5 | Understand how human actions modify the physical environment. |
| Common Core 4th Grade Writing Standard | Research to Build and Present Knowledge 7: Conduct shore research projects that build knowledge through investigation of different aspects of a topic. |
| National Environmental Education 4th Grade Guidelines | Strand 3.2 A: Learners are able to examine and express their own views on environmental issues. Identify unanswered questions. Identify, clarify, and express their own beliefs and values regarding the environment. |

**Estimated Time:** 1½ hours to a half day

**Materials:**
- My Wild Places Journal for each student
- Video camera (optional)
- List of student-generated questions and student jobs

**Teacher Background Information:**
Land managers regularly make decisions about the best way to protect and preserve wild places. Each wild place has a specific management plan based on the human usage, the local natural resources, the agency, and other factors. Contact a local land manager for a wilderness area, city or county park, recreation area, etc., and invite them to speak to your students. Decide if it’s best to go to a wild place or to have the land manager come to your school.
Prior to the discussion with the land manager, work in small groups to develop a list of questions that students want to ask the land manager. Create one complete class list and decide which individuals will ask specific questions. Assign jobs to students before the interview to make sure that the event flows smoothly and is accurately recorded for later review.

Students now have a considerable knowledge and concept of wild places. Assign a small group of students to present what they have learned and observed in the previous Wilderness Investigations.

**Teaching Sequence:**

1. **Introduce**
   Tell the students that you will be learning about the job of a wild place land manager, which is to make decisions about wild places. You will get to learn the background (behind the scenes) story of the wild place, how it is managed and other interesting aspects of the job.

2. **Develop**
   Talk with your class about what they want to learn and understand about public land management. In small groups, students may develop questions about topics that interest them. Bring the class together and create one master list of questions. Look for similar themes within questions.

   Examples of land manager interview questions:
   - What do you do to make sure that different types of people can visit the wild place?
   - What do you do to make sure wildlife is healthy and wild?
   - Do you do anything to prevent people from damaging the wildness of the area?
   - What does your work day look like?

3. **Prepare**
   Talk with the students about listening to a guest speaker and asking appropriate questions. Determine which students will ask which questions and the question order. Assign students different jobs during the interview. Several students may have the same job. Have students practice asking their questions loudly and clearly. Provide the land manager with a copy of the questions in advance so they can prepare their answers.
Examples of student jobs:

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Job Description</th>
<th>Name of Student(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambassador</td>
<td>Welcome the speaker, show them where to go. Help them feel comfortable when they arrive and part.</td>
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</tr>
<tr>
<td>Logistics Coordinator</td>
<td>Make sure any equipment or space needs are taken care of, such as a chair for the speaker, tables, water, places for students to sit, etc.</td>
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</tr>
<tr>
<td>Question Coordinator</td>
<td>Keep track of which questions have been asked and which questions are coming up to keep the discussion running smoothly. If students have new questions they want to ask, determine the best time to ask them.</td>
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</tr>
<tr>
<td>Recorder</td>
<td>Write down what is said during the interview. Audio record the interview if appropriate, ask the speaker first.</td>
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<tr>
<td>Idea Connector</td>
<td>Write down ideas for further discussion in the classroom.</td>
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</tr>
<tr>
<td>Thank You Coordinator</td>
<td>Organize a thank you letter to the speaker from the class. Make sure the letter gets sent on time.</td>
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<tr>
<td>Knowledge Presenter</td>
<td>Create and brief presentation about what you have already learned about wilderness and any key observations the class has already made about the wild place.</td>
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</table>
4. **Presentation and discussion with land manager**
   During the presentation and discussion, students may want to write individual questions that arise in their My Wild Places Journal on journal page 17.

5. **Reflect and write**
   In small reflection groups, talk about the big ideas from the interview. Each student will write a short My Wild Places Statement in their My Wild Places Journals on journal page 18.

   Did you learn anything new about managing wild places?
   Was there anything that surprised you?
   Why is wilderness important to you?

**Adaptations:**
- Create a video or podcast of the interview with the land manager. Present the video to other classes or a group of parents.
- Create a blog or booklet of students’ My Wild Places Statements that will summarize what students learned during Wilderness Investigations.
- If it is not possible to travel to a wild place, this experience could take place on school grounds.
- Students may develop their own interview strategy and questions for the land manager. Review and practice the questions prior to interviewing a land manager.
- Students may choose to sketch their observations instead of writing observations.
- If the interview was audio recorded, with the permission of the land manager, students could create a podcast or movie summarizing their interview.

**Teacher Notes:**
- Depending on the length and location of your trip to a wild place, you will need to adequately prepare yourself and your students for a successful experience. Students may need lunches, water, first aid kit, proper clothing, sun protection.
- If equipment is available, you may want to video tape the land manager’s presentation to review in class later or the following year.
Wilderness Profile Study #5:
Mission Mountains Tribal Wilderness

Use the wilderness profile concept map for your study of the Mission Mountains Tribal Wilderness. Students may record their thoughts on journal page 24 in their My Wild Places Journals.

Discussion:
1. Can you find the Mission Mountains Tribal Wilderness on the Wilderness Map?

2. How is a tribal wilderness different from federally designated wilderness? Do people experience the land in the same ways or in different ways?

The Mission Mountains Tribal Wilderness was set aside by the Salish and Kootenai Tribes on the Flathead Reservation. While neither tribe has a word for wilderness in their native languages, wilderness has a spiritual value, which is the essence of their traditional beliefs about being connected to nature. Tribal members also reserve specific rights for harvesting food and materials from the wilderness area.

3. The Mission Mountains Tribal Wilderness has set aside a specific area for grizzly bears where people cannot visit at certain times. Why do you think they created a space just for the bears? How could bears benefit from a human-free space?

Extension Activity #1: Salish and Kootenai in Montana
Research the Salish and Kootenai Tribes that live on the Flathead Reservation in Montana. They designated the first tribal wilderness in the country. Students may use a variety of resources to find out more about the tribes’ relationship to the land, traditional practices, and their history in Montana. Students can present their findings to the class to complete a picture of the tribes.

Extension Activity #2: Wilderness Winter Wildlife
Wildlife in the Mission Mountains experience hot summers and harsh winters. They must adapt to different conditions throughout the year. Students may choose one species of wildlife that interests them and research how that species adapts during the winter and summer. Students can create posters about each of their wildlife species to inform the rest of the class.

Extension Activity #3: A Day in the Life of Wildlife
Students can choose one wildlife species that lives in the Mission Mountains Tribal Wilderness. They may write or illustrate a day in the life of that species from the perspective of the species. You may choose to go through the full writing process to develop the story completely.
Wilderness Profile #5: Mission Mountains Tribal Wilderness

**Landscape:** high mountain valleys, rocky peaks, forested slopes, lakes and creeks, glaciers, and meadows

**Designated as wilderness by the Confederated Salish and Kootenai Tribes in 1982.**

**The three YaYas story:** In 1974 a company wanted to log a part of the Mission Mountains. Three grandmothers worked together to speak out against the logging and made a case to preserve the wild area for future generations.

**Native People's Historic Presence:** Bitterroot Salish, Pend d'Oreille, Kootenai, Blackfeet

**Wildlife:** grizzly bear, lynx, mountain lion, wolf, black bear, moose, mountain sheep, mountain goat, elk, bald eagle, and many types of small mammals.

**Location:** Montana

**Plants:** Whitebark pine trees, Lodgepole pine trees, Douglas fir trees, spruce, Ponderosa pine, larch, ferns

**Wilderness Profile #5: Mission Mountains Tribal Wilderness**

Lake/ Mission Mountains Tribal Wilderness (from wilderness.net; image # 3161)
Wilderness Show & Tell

Teacher Information:
At the end of each investigation work with the students to create a display or presentation about their learning, skills acquired, and experiences. It may be useful to take photos of students during the Wilderness Outside of the Classroom portion of the investigation. Use this space as a planning template.

Big Ideas from Wilderness Investigation 5:

Presentation or Display Ideas:

Student Involvement Component:

Location and Date of Event:

Logistics of Event: [refreshments, seating]