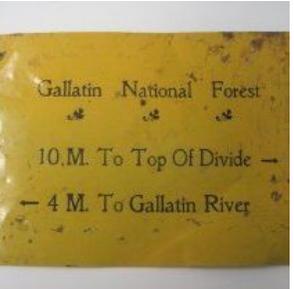


1. Title / Content Area:	Backpacking Ethics with Primary Sources	
2. Developed by:	Jessica Haas	
3. Grade Level:	7-9th	
4. Essential Question:	How did history drive the formation of the seven principles of Leave No Trace?	
5. Contextual Paragraph	<p>This ARS focuses on primary sources from the Gallatin National Forest that can be used to illustrate recreation habits in history. This lesson will take place during a 5-day backpacking experience and will drive students to discuss historic habits or processes in context with our current Leave No Trace principles which will be explained in detail during the orientation.</p> <p>Ethically backpackers have been adhering to the Leave No Trace principles for decades but what caused the formation of them? Can primary sources show us the historic habits of campers and hikers that sparked the creation of a broad land ethic and these seven principles?</p>	

Annotated Resource Set (ARS)

6. Resource Set

<p style="text-align: center;">Boy Scouts by Their Tents</p>	<p style="text-align: center;">Bozeman Municipal Watershed Sign</p>	<p style="text-align: center;">Dying Sagebrush</p>	<p style="text-align: center;">Gallatin National Forest - Decal</p>	<p style="text-align: center;">Forest Service Snow Ranger Firing 75 mm Recoilless Rifle</p>	<p style="text-align: center;">Gallatin National Forest Directional Sign</p>
<p>Principle #2 Travel and Camp on Durable Surfaces – what are the similarities and differences in this base camp vs ours?</p>	<p>Use this during orientation to connect outdoor recreation with municipal infrastructure</p>	<p>Principle #4 – Leave What You Find – Does this vegetation look healthy? Different than what we’ve been seeing?</p>	<p>Introduce primary sources with this decal from 1978-1982.</p>	<p>Principle #7 Be Considerate of Other Visitors – What is happening in this photo? Avalanche blasts near Bridger Bowl – sound is one of the biggest ways we can disturb others</p>	<p>Principle #1 Plan Ahead and Prepare – compare and contrast this trail sign with current trail signs</p>
					
<p>https://forestservicemu.seum.pastperfectonline.com/photo/AA4B3C93-4A92-487C-9213-189126032700</p>	<p>https://forestservicemu.seum.pastperfectonline.com/webobject/2D381565-32DD-4B6E-AFBD-081751810180</p>	<p>https://forestservicemu.seum.pastperfectonline.com/photo/D3A706C7-EBOC-4DE4-B832-162406726822</p>	<p>https://forestservicemu.seum.pastperfectonline.com/webobject/AE5F0CC0-FF84-40BE-8057-771381357539</p>	<p>https://forestservicemu.seum.pastperfectonline.com/photo/EAB9D7FD-E07C-43E0-8A5E-326086684522</p>	<p>https://forestservicemu.seum.pastperfectonline.com/webobject/3F257E21-0AFA-4257-95E8-710351497520</p>

Pine Creek Campground Fire Circle Vandalism	Help Us Keep This Toilet Clean Sign	Man Holding Fawn
Principle #5 Minimize Campfire Impacts – why is this source labeled “vandalism?”	Principle #3 Dispose of Waste Properly – why do some areas have pit toilets?	Principle #6 – Respect Wildlife – what is happening in this photo from the 1950s?
		
https://forestservice.seum.pastperfectonline.com/photo/D085E589-4CB5-413F-85E5-296267069600	https://forestservice.seum.pastperfectonline.com/webobject/551915C6-CC33-492F-904D-644016999395	https://forestservice.seum.pastperfectonline.com/photo/29133F40-7F25-4473-8EA5-511197444204

Notes/Comments: Each resource should be printed and laminated – light enough to carry in the field but water proof for the conditions of a backpacking trip.

Foundations Annotations

7. Curriculum Connections

History, Social Studies, Science, Conservation

8. Curriculum Standards

Montana Science Standards

- analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem and analyze scientific concepts used by American Indians to maintain healthy relationships with environmental sources
- construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems
- evaluate competing design solutions for maintaining biodiversity and ecosystem services

Montana Social Studies Standards

- apply the steps of an inquiry process (i.e., identify question or problem, locate and evaluate potential resources, gather and synthesize information, create a new product, and evaluate product and process). 2. assess the quality of information (e.g., primary or secondary sources, point of view and embedded values of the author). 3. interpret and apply information to support conclusions and use group decision making strategies to solve problems in real world situations (e.g., school elections, community projects, conflict resolution, role playing scenarios).
- describe major changes in a local area that have been caused by human beings (e.g., a new highway, a fire, construction of a new dam, logging, mining) and analyze the probable effects on the community and environment.
- analyze diverse land use and explain the historical and contemporary effects of this use on the environment, with an emphasis on Montana.

9. Content & Thinking Objectives

Content Objectives

1. Understand different between primary and secondary sources
2. Search for clues within primary sources for a relevance to our Leave No Trace inquiry

Thinking Objectives

1. Develop critical questions for primary sources
2. Determine which primary sources provide evidence for connections to Leave No Trace principles



10. Inquiry Activities & Strategies



On day 1 of the backpack, discuss the seven Leave No Trace principles in detail with students. Be sure to include exactly how the group will practice these during the backpack.

On day 2 of the backpack, in pairs, give each student a primary source. Ask each team to develop 3 questions about the source. Combine groups into 4s and have them share their questions. Now ask each group to determine which principle their source is most related to.

On day 3 of the backpack, have students “present” their source and give brief background of what it is and what it shows (info given by you on previous day). Analyze sources with the following questions:

1. What Leave No Trace principle is this most connected with?
2. Does this source show positive, negative, or neutral behavior in the outdoors?
3. Did we jump to any conclusions?
4. What can we infer about how our forest might look if this principle didn't exist?

On day 4 of the backpack, repeat day 3 activity with remaining sources.



11. Assessment Strategies



Each student should reference at least one principle once during the backpack. This often happens as a joke when dinner is being cooked or when you see behavior from another group. Keep track of these – it's a great informal way to know when students are connecting with the material you're presenting.

On day 5, ask students what primary sources they'll have to contribute to the future. Each student should be able to come up with one (photos, field journal entries, etc).

Other Resources



12. Web Resources



<https://lnt.org/learn/7-principles> - Leave No Trace 7 principles

<https://msudenver.edu/tps/resources/annotatedresourcesets/> - other sample ARS