

**Grade Level:**4<sup>th</sup> & 5<sup>th</sup>**Time:**

30-40 min

**Season:**

All

**Objectives:**

Students will be able to...

- Understand the seven principles of Leave No Trace
- Understand how their impacts affect the environment

**Key Concepts:**

- Leave No Trace
- Natural Resources

**Materials:**

- Leave No Trace cards
- Hand signals
- <https://Int.org/remember-the-7-principles-with-this-trick/>

# Leave No Trace

## Summary

Leave No Trace is a national and international program designed to help everyone learn how to reduce their impacts on the environment. Through the Seven Principles you can easily learn how to apply these principles into your everyday lives.

## Background

White Horse Hill National Game Preserve (WHH) was designated in 1904 as a national park and later as a national wildlife refuge in 1921. This area of land was set aside to conserve native species like bison, elk, birds, and plants. WHH is managed by the U.S. Fish & Wildlife Service whose mission is: “working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.” It is everyone's responsibility to help keep the refuge habitat in its best condition for wildlife. Our choices we make while visiting the refuge can have high or low impacts on soil, vegetation, cleanliness, wildlife, and solitude.

Leave No Trace is a national and international nonprofit organization that partners with companies, agencies (including the U.S. Fish & Wildlife Service), and people to fulfill their mission: “Using the power of science, education and stewardship, Leave No Trace is on a mission to ensure a sustainable future for the outdoor and the planet. No matter where or why you get outside, it’s yours to protect. It’s Your Nature.”

Leave No Trace has established the Seven Principles of Leave No Trace to help everyone learn how to become better stewards for the environment.

<https://Int.org/why/7-principles/>

The Leave No Trace Principles can be used wherever you go, whether you are at a national wildlife refuge or in your own backyard.

## Preparation

1. Set out Leave No Trace cards ahead of time along a hiking trail.
2. Review the hand signals that go with each Principle.

Follow this link to learn the hand signals to go with each principle:  
<https://Int.org/remember-the-7-principles-with-this-trick/>



## Procedure

1. Ask the students:
  1. *Have you ever been hiking and seen something that looked out of place?*
  2. *What should you do while outside? Throw trash on the ground? Pick the flowers?*
  3. *What do you know about Leave No Trace?*
2. Take students out on the designated hiking trail.
3. Stop at each card, have a student read it. Ask the students: *Why might this principle be important?*

## Seven Principles of Leave No Trace

### Principle #1:

#### Know before you go!

It is important to know where you are going so you know what to bring and expect. Poor planning can often lead to miserable experiences and injuries. Seasonal trails at the refuge may be flood or otherwise inaccessible. When possible, contact refuge staff to learn about current conditions.

### Principle #2

#### Choose the right path!

Our goal is to reduce our impact on the environment around us. When we step off a trail or create our own, we could be destroying habitat for native plants and animals. Social trails are created when multiple people have walked in an area and created a new path. You could unknowingly be damaging new plant growth or animal homes, i.e., bird nests.

### Principle #3

#### Trash your trash!

*Can you name the 5 most common litter sightings? <https://lnt.org/our-5-most-common-litter-sightings/>*

*1.) Orange Peels, 2.) Bottle Caps, 3.) Aluminum Cans, 4.) Balloons, 5.) Plastic Straws*

“Pack it in, Pack it out” should always be observed when there are no waste facilities near you. It is important to never throw your trash on the ground. Overlooked trash or litter can be harmful to our environment. Food waste attracts wildlife and changes the way they will interact with humans. Orange peels are a “natural trash”, while it might feel like it is natural it is not natural to the place you are in and can take up two years to decompose.



## Procedure (continued)

### Principle #4

#### Leave what you find!

Take only pictures leave only footprints. As you visit the refuge you will see a variety of plant life. It is best to leave it be so others can enjoy it and wildlife can use it. Another important thing to remember is to never carve your name into natural areas. This includes trees and rock walls.

### Principle #5

#### Be careful with fires!

Fires are not allowed at WHH, but it is still important to know the impacts of fires in other areas. Fires can easily become out of control; be sure you have a shovel and a bucket of water and to always put your fire out completely. Fire can easily relight. Your fire should be cool to the touch before you leave the area. The best method is to drown it, stir it, drown it again, then feel it. If it is warm repeat the process again.

### Principle #6

#### Respect wildlife

A wildlife refuge is a home for wildlife. It is important to not harass any wildlife including bugs and birds. You should maintain a comfortable viewing distance that does not disturb the animals. One way to know if you are too close to wildlife is to use the "Rule of Thumb." If you can hold your thumb at arms length over the animal and not see any part of it, you are at a good distance. If you hold up your thumb and can still see parts of the animal, back away and give it some space.

### Principle #7

#### Be kind to other visitors

We are all visitors in nature. Treat everything with respect and be considerate of other visitors. The trick to seeing wildlife is to be quiet. Being respectful of others by keeping your voice low will help everyone see wildlife.

3. Continue until you have read all the cards.

4. After you have gone through all the Seven Principles ask the students:

*Which principle do you consider to be the most important of the Seven Leave No Trace Principles and why?*

*How can you teach others about the Seven Leave No Trace Principles?*

*What are some ways/examples you can practice Leave No Trace?*



## Journaling Prompt

How can you help the environment using Leave No Trace Principles? Pick one of the 7 Principles and tell why it is important and how YOU can lead by example to educate your parents, teachers, friends, and family.

## Vocabulary

- **Native Plants:** a plant that occurs naturally in an area.
- **National Wildlife Refuge:** an area of land and water managed by the U. S. Fish and Wildlife Service for the conservation and restoration of fish, wildlife, plants, and habitats for the benefit of present and future generations.
- **Impact:** having a strong effect on someone or something.
- **Principles:** truth or proposition that is the foundation for a system of belief or behavior or a chain or reasoning.
- **Decompose:** when organic matter breaks down into tiny microscopic pieces.

## Resources

1. <https://lnt.org/why/7-principles/>
2. <https://lnt.org/remember-the-7-principles-with-this-trick/>
3. <https://lnt.org/our-5-most-common-litter-sightings/>

## North Dakota Science Curriculum Standard

**This lesson helps support the following state standards:**

### Grade 4 Science Curriculum

4-ESS3 Earth and Human Activity

4-ESS3-2: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans

### Grade 5 Science Curriculum

5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

# 7 Principles of Leave No Trace



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Leave  
No  
Trace™

# #1 Know before you go.



Pack what you might need  
and learn about where you  
are going.



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# #2

## Choose the right path.



**Be safe: don't wander off the trails.  
Allow small trees and flowers to grow  
by not stepping on them.**



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# #3

# Trash your trash.



**Pack it in, pack it out!**



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# #4

# Leave what you find.



So others can enjoy it and  
wildlife can use it.



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# #5

# Be careful with fires.



**Be sure it's OK to build a fire where you're visiting. Make sure fires are completely out before you leave.**

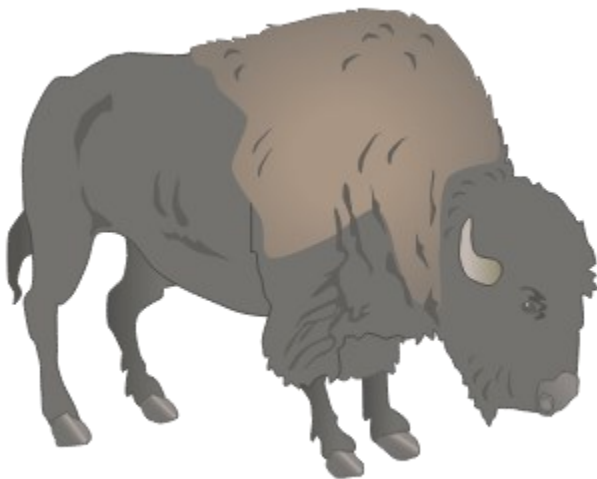


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# #6

# Respect wildlife.



.....  
Too close!

**Observe animals from a safe  
distance and do not  
feed them.**



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# #7

## Be kind to other visitors.



If you are quiet, everyone will  
observe more wildlife.



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