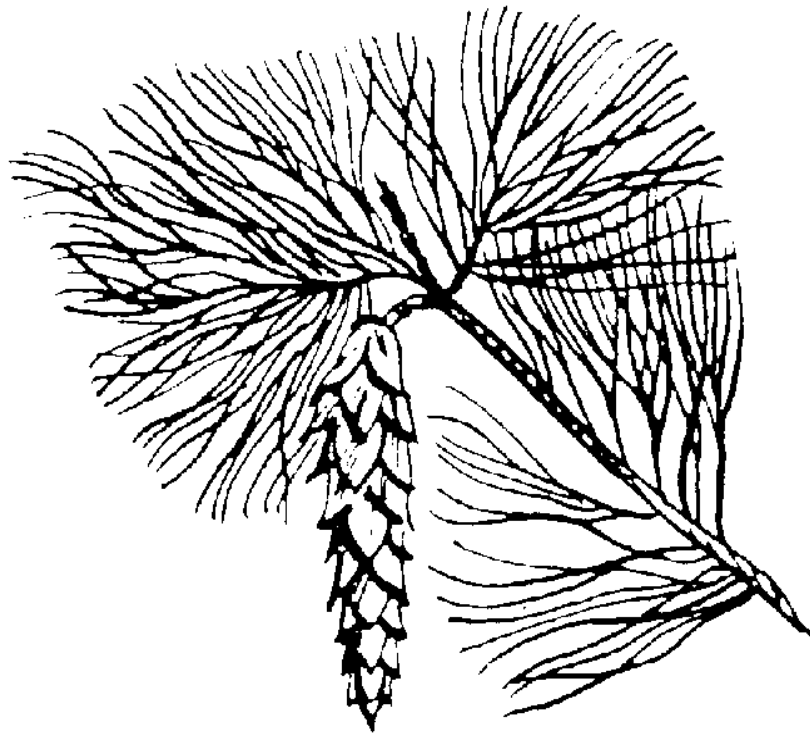


Tread Lightly! And Leave No Trace Principles 5 Minute Series



Program Note

You will be better prepared to teach these ethics and principles by reviewing "Teaching Leave No Trace" - available free at www.tcfroar.org.
Introduction should take no more than 2.5 minutes to complete.
Each session should take no more than 5 minutes to complete.

The Center for Responsible Outdoor Activities and Recreation

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Tread Lightly! Master Tread Trainer
Leave No Trace Master Educator

Introduction to Tread Lightly! & Leave No Trace Series

(2.5 Minutes)

When you visit a friend, you take care to leave your friend's home just as you found it. You would never think of trampling flower gardens, chopping down trees in the yard, putting soap in the drinking water, or marking your name on the living room wall. When you are outdoors, the same courtesies apply. Leave everything just as you found it. That is called Leave No Trace and Tread Lightly.

Tread Lightly and Leave No Trace are nationally recognized outdoor skills and ethics awareness programs that teaches us how to treat the environment. Their seven principles are guidelines to follow at all times, and are an awareness and an attitude, rather than a set of rules. The programs provided by some conservation and environmental groups are designed to restrict our access to outdoor resources that belong to all of us.

These programs are totally different. The purpose of Tread Lightly and Leave No Trace is to help us enjoy any outdoor activity we want but to do it in a way that no one can tell we were there. Tread Lightly and Leave No Trace are not about restrictions. They are about responsible enjoyment of our outdoor resources.

They are not simply programs for visiting the outdoors, they are a way of life, and learning Tread Lightly and Leave No Trace concepts begin at home. They apply at home, in our neighborhood, and local park, as much as in the backcountry. We should all practice Tread Lightly and Leave No Trace in our thinking, and actions, wherever we go.

The Tread Lightly and Leave No Trace principles might seem unimportant until we consider the combined effects of millions of outdoor visitors. One poorly located campsite, or campfire, may have little significance. But thousands of such instances seriously degrade the outdoor experience for all. The Forest Service estimates that in the year 2000 there were 8 million recreational users in the forest. By the year 2050, that number is expected to exceed 1.2 billion.

We can protect the environment whenever we are outdoors by remembering that wherever we are, we are a visitor, and practice the Tread Lightly and Leave No Trace principles.

Principle #1: Plan Ahead And Prepare (5 minutes)

1: In this session we will consider the first principle of **Leave No Trace, Plan Ahead and Prepare**. Another way to think of this principle is: **"Proper Prior Planning Prevents Poor Performance"**.

What is the most important tool you need for a safe and fun outdoor experience?

(After participants have provided several answers hold up Brain) The brain is the most important tool you have. Everything else can fail you. If you prepare for your activity your brain will enable you to respond properly to any situation you are in. The best response in any situation is one that will maintain your safety and minimize your impact on the environment.

Planning ahead benefits the activity, wildlife, others we may encounter, and the land we will be on. When we review problems from past activities we generally discover most problems could have been avoided with proper planning. Proper planning will ensure a safe and exciting activity for everyone involved. Proper planning will ensure we don't build fires in prohibited areas, that our group is the right size for the area, and so forth.

2: I'm going to give you three examples of poor planning.

- A group that is inexperienced or unfamiliar with the area they will be in may put people at risk by traveling through areas susceptible to flash floods, or along ridge tops vulnerable to lightning activity. Groups traveling arid lands often fail to carry adequate water, or a way of purifying water from natural sources. Check with local land managers and study maps and weather conditions to ensure for a low-risk experience.
- A poorly prepared group may plan to cook meals over a campfire only to discover upon arrival at their destination that a fire ban is in effect or that there is little firewood. Such groups often build a fire anyway - breaking the law or impacting the land - simply because they did not plan for alternatives. Fire bans and scarce wood supplies are signs that an area is experiencing the effects of heavy use.
- A group that has failed to develop good travel plans may be unable to travel as fast as expected. The terrain may be too steep, trails too rugged, or

packs too heavy. These groups often resort to setting up camp late at night, sometimes in an unsafe location. Poor campsite selection usually leads to unnecessary resource damage.

3: Now lets review a few thing to consider when we plan ahead and prepare that would help us avoid these problems.

Our first step is to check with the land management agency responsible for the area we will be in. The agency will have important information necessary for a successful, and safe, experience. This information will include regulations on group size, fire or other restrictions, as well as requirements and special concerns for the area. Many agencies find it necessary to limit group size to improve everyone's experience and limit damage to the environment. These same agencies can help us schedule our activity to avoid times of high use.

Another major consideration is the experience and ability of the least capable participant on the activity. Every activity should be planned around the weakest link. For example: disaster is just around the corner when you have a 50 pound pack on a 90 pound Scout.

Meals are another element of trip planning that can have a major effect on the impacts we have on the environment. Repackaging saves space, weight, and garbage that has to be carried out. Lets say that we are planning on two servings of macaroni and cheese. We can carry this box (*Hold up box of Macaroni and Cheese*) that has four servings or we can put two servings in a zip lock bag (*Hold up bag of Macaroni and Cheese*) and have no extra weight or garbage. Most food should be removed from its commercial packaging, and placed in zip lock bags, before packing. This will also eliminate the undesirable behavior of stashing, or burying, unwanted trash.

Proper planning includes (*Hold up Map and Compass*) reviewing a topographical map and knowing how to use a compass. Knowing local restrictions and fuel availability will help in determining (*Hold up Stove*) the need for a backpacking stove. We will (*Hold up Rain Gear*) be prepared for changing weather conditions and to (*Hold up Purification Tablets & Water Filter*) treat our water if necessary. And we will be able to handle medical emergencies. (*Hold up 1st Aid Kit & Moleskin*).

4: REMEMBER: Proper Prior Planning Prevents Poor Performance.

Principle #2: Travel and Camp on Durable Surfaces

(5 minutes)

1: In this session we will discuss how to travel and camp while avoiding damage to the land. I would like you to think of your favorite trail. Do you have it in your mind? Now, think about applying this principle to that trail during our discussion. Okay?

2: Damage occurs when surface vegetation is trampled beyond recovery. The resulting damage encourages undesirable trails and campsites. Land managers build trails and campsites to concentrate impact and reduce damage to the environment. So whenever possible use developed trails and campsites. Never shortcut switchbacks, or walk around mud puddles on developed trails.

On high-impact sites, tents, traffic routes, and kitchen areas should be concentrated on areas already damaged. We need to confine impact to places which already show use, and avoid enlarging the damaged area. When leaving camp, make sure that it is clean, attractive, and appealing, to other campers who follow.

3: We often leave impacted areas to take breaks, search for "bathroom" privacy, explore around our campsite, or travel in pristine areas. When we are off trail we should travel and camp on durable surfaces.

What is a durable surface?

A surface that we cannot harm by being on it..

What are some examples of a durable surface?

Cement - Asphalt - Dry Grass - Rock - Sand - Gravel - Snow - Ice

Most vegetation quickly show the effects of trampling and forms what is referred to as "Ghost Trails" that encourage others to follow the same route. Avoid vegetation whenever possible, especially on steep slopes, where the effects of travel are magnified.

4: On pristine sites it is best to spread out tents, avoid using the same route twice, and move camp every night. Our goal is to minimize the number of times any part of the site is trampled. *(Hold up shoes)* Wear soft shoes around camp. Minimize activity around the kitchen and *(Hold up pack)* where packs are stashed. The durable surfaces of large rock slabs make good kitchen sites. Watch where

you walk to avoid crushing vegetation, and take alternate paths to water. **Minimize the number of trips to water by carrying *(Hold up container)* water containers.**

5: In arid lands camp on durable surfaces or sites already highly damaged. **Make sure your site is large enough for your entire group. It should never be necessary to camp on cryptobiotic soil or next to desert creeks or streams.**

6: **Cryptobiotic crust *(Show pictures)* is found in the desert and is extremely fragile. Crypto consists of tiny communities of organisms that appear as a blackish and irregular raised crust. This crust retains moisture in desert climates while providing a protective layer that prevents erosion. Travel across crypto should only be used when absolutely necessary. In broad areas of crypto where damage is unavoidable, it is best to follow in one another's footsteps so the smallest area of crust is affected—exactly the opposite rule from travel through vegetation.**

7: **River corridors are narrow strips of land and water where there is little room to disperse human activities. It is generally best to camp on established sites located on beaches, sandbars, or non-vegetated sites below the high-water line.**

All other times camp at least 200 feet away *(Show how far 200' is to another object)* from water, so we don't pollute the water and allow wildlife the access they need. Select a site which is not visible to others. Even in popular areas the sense of solitude can be enhanced by choosing an out-of-the-way site.

8: **Never scrape away or clean sites of organic litter like leaves, and always minimize the removal of rocks and gravel. When breaking camp, take time to naturalize the site. Cover scuffed areas with pine needles or leaves, brush out footprints, and rake matted grassy areas with a stick **(Use a stick to rake the area)** to help the site recover and make it less obvious as a campsite. This extra effort will help hide where you camped and make it less likely that others will camp in the same spot.**

9: **Remember: Fatigue, bad weather, and late departure times are not acceptable excuses for damaging our natural resources and putting yourself in danger.**

Principle #3: Dispose of Waste Properly (5 minutes)

1: In this session we will learn about two types of waste that must be disposed of properly. One is our garbage, or trash, and the other is human waste. Think about areas you have hiked and camped where you found trash and stinky waste.

2: What does Pack It In, Pack It Out, mean?

This common saying is a simple way to encourage us to take our trash home. Most trash and litter (*Hold up bag of trash*) originates from food. The easiest way to control trash is to plan ahead and prepare. Reduce trash by repackaging (*Hold up bag of macaroni & cheese*) food into plastic bags and reusable containers (*Hold up reusable container*). Another good idea is to keep your menu simple. For short trips, consider taking food that (*Hold up food*) requires no cooking.

Under no circumstance should food scraps be buried or burned! Discarded or buried food scraps attract animals. It is common to see chipmunks, ground squirrels, and various species of birds, gathering scraps around camp kitchens. A conscientious no-trace camper always keeps a clean camp.

3: Disposal of dish water is easy. You can use a fish net (*Hold up net and demonstrate*) to collect the food particles in the dishwater. Or you can put a nylon over the dish pan (*Demonstrate*) and pour water through it into another container. Broadcast the dirty water 200 feet away from camp, cooking areas, and your water source.

Broadcasting it spreads the smell of food so wildlife is not attracted to the area. You can empty the food from the fish net or nylon into your garbage bag.

4: Human waste disposal can be an embarrassing subject. Proper disposal of human waste is important to avoid water pollution, avoid someone else finding it, minimize spreading of disease, and aid in decomposition.

It is easy for men to properly dispose of urine. While urinating, we write our name in cursive to spread the urine. Urine is sterile so it won't harm the soil or vegetation. But it does contain a high level of salt and when it is concentrated and dries the smell can attract wildlife which can destroy the plants while getting to the salts. Women can urinate on rocks, sand, gravel, pine needles and so forth that can not be damaged by animals trying to get the salt.

5: Properly disposing of solid human waste is even more important. Solid human waste must be packed out from some places, such as narrow river canyons. This is another reason for checking with agencies during your planning phase. In most locations, burying the solids properly is the most effective method of disposal.

Catholes are the most widely accepted method of waste disposal. Locate catholes at least **200** feet or about **70** adult steps (*Show distance*) from water, trails and camp. Select an inconspicuous site where other people are unlikely to walk or camp. Remove the natural litter, twigs, leaves, rocks, pine cones and so forth. Make sure you have a short stick. (*Hold up Stick*) Use a small garden trowel (*Hold up Trowel*) to dig a hole **4-6** inches in diameter.

The hole will be **6-8** inches deep in top soil and **4 to 6** inches deep in the desert. There are no microbes to kill pathogens so the heat from the sun will do it. South-facing slopes and ridge tops will have more exposure to sun and heat than other areas. Avoid areas where water visibly flows, such as sandy washes, even if they are dry at the moment.

6: Now we will make "Poop Soup" (*Demonstrate*). Use your stick to mix the solids and the toilet paper together so everything decomposes faster. Put a few inches of soil in the hole and mix again. This mixes the natural microbes in the soil with the waste so it will break down faster. Keep mixing soil into the "soup" until you get to the top **2 to 3** inches. Fill the hole with soil and cover with natural litter.

Push the stick in the hole so it is straight up to mark the spot so no one else gets an unpleasant surprise later. If camping in the area for more than one night, or if camping with a large group, cathole sites should be widely dispersed. Be sure to check with local land managers to learn what is expected in the region to be visited.

Principle #4: Leave What You Find (5 minutes)

("Plant" flowers around where you will be doing your presentation)

1: (Hold up flowers, shards, pictograph and arrowheads while asking question) What do these things have in common?

In this session we will discover why we should leave what we find when outdoors. Answer these questions to yourself:

- **Have you been in the mountains and seen someone pick a flower for someone else because it was so pretty?**
- **Have you ever seen someone find something of interest like an arrowhead or pot sherds, and take them home?**
- **Have you ever seen someone take something from the wilds that came from a plant or animal?**
- **How would you feel if someone came into your yard and picked all your flowers?**

2: (As you are telling the story move slowly and talk softly)

Imagine that you are out in the mountains one sunny morning on a short hike. You enjoy being in the mountains with the cool, clear air, the smell of pine trees and sage brush. During the hike you see flowers and bees collecting pollen. You enjoy the sound of the bees as they buzz around the flowers. You listen to the breeze as it moves through the trees and the call of the birds as they fly around.

(As you tell story "pick" flowers)

During the hike you see others pick flowers, smell them and drop them on the trail. Some people pick the flowers because they think they will look good at their campsite.

Have you ever seen people do something like that?

Picking a few flowers does not seem like it would have any great impact and, if only a few flowers were picked, it wouldn't. But, if many visitors thought "I'll just take a few," a much more significant impact would result. ***(Hold up camera)*** Take a picture or ***(Hold up pad & pencil)*** sketch the flower instead of picking it. Experienced campers may enjoy an occasional edible plant, but they are careful not to deplete the surrounding vegetation or disturb plants that are rare or slow to reproduce.

3: When we are outdoors we may find items from nature, like feathers or bones, or items from past history like arrowheads and pot sherds (**Hold up arrowheads and sherds**). Have you ever experienced the joy of discovery when you found something like this?

Should we take the items for ourselves or should we leave them? Of course, we should leave them. The only exception to leaving what you find is trash. Be sure to pick up all of the trash you find.

Natural objects of beauty or interest – such as antlers, petrified wood, or colored rocks—add to the mood of the outdoors. Allow others a sense of discovery by leaving rocks, plants, archaeological artifacts and other objects of interest as you find them.

The same ethic is applies to (**Hold up pictograph**) cultural artifacts found on public land like National Parks. It is illegal to remove or disturb archeological sites, historic sites, or artifacts such as pot sherds, arrowheads, structures, and even antique bottles found on public lands.

4: Leave all areas as you find them. Do not dig trenches for tents or construct lean-tos, tables, chairs, or other improvements. If you clear an area of surface rocks, twigs or pine cones, replace the items before leaving. On high impact sites, it is okay to clean up the site and dismantle inappropriate user-built facilities, such as multiple fire rings and seats or tables that have been built. Consider the idea that good campsites are found, not made.

In many locations, properly located and legally constructed facilities, such as a single fire ring, should be left. Dismantling them will cause additional damage because someone else will rebuild it. Learn to evaluate all situations you find.

5: Avoid hammering nails into trees for hanging things, hacking at them with hatchets and saws, or tying tent guy lines to trunks and thus girdling the tree. Carving initials into trees is completely unacceptable. The cutting of boughs for use as a sleeping pad creates minimal benefit and maximum impact. Inexpensive (**Hold up pad**) sleeping pads are available at most stores that sell camping equipment.

Non-native plants can disrupt the normal balance of nature. We want to be careful not to move seeds from one area to another. Shake out any gear (**Show**) before packing to return home. Clean gear again at home before your next adventure to help maintain a normal balance in nature.

Principle #5: Minimize Campfire Impacts (5 minutes)

1: In this session we will consider the use of campfires. Campfires are often considered a necessity for cooking and warmth and are steeped in history and tradition. Some people would not think of camping without a campfire. Building a campfire is also an important skill for every camper.

2: The most important consideration to be made when deciding to use a fire is the potential damage to the outdoors. Consider these questions:

- What is the fire danger for the time of year and the location you have selected?
- Are there fire restrictions?
- Is there sufficient wood?
- Do group members possess the skill to build a *Leave No Trace* campfire?

Camp in areas where wood is abundant if building a fire. Choose not to have a fire in areas where there is little wood: like at higher elevations, in heavily used areas, or in the desert. A true *Leave No Trace* fire shows no evidence of there ever having been a fire.

The best place to build a fire is within an existing fire ring in a well-placed campsite. Keep the fire small and burning only for the time you are using it. Allow wood to burn (*Hold up ash*) completely to ash. Put out fires with water as dirt may not completely extinguish the fire. Avoid building fires next to rock outcrops where the (*Hold up blackened rock*) black scars last forever.

2: Construction of a mound fire can be accomplished by collecting mineral soil like sand or gravel. (*Demonstrate*) Lay out a ground cloth and spread the soil into a circular, flat-topped mound at least 6 to 8 inches thick. The thickness of the mound is critical to insulate the ground below from the heat of the fire. The ground cloth makes cleaning up after the fire much easier. The advantage of a mound fire is that it can be built on exposed rock or on an organic surface such as grass.

3: A pan fire is another good alternative for building a fire. A disposable aluminum baking pan with three inch high sides is very effective and inexpensive. It can also be used as a wind shield for a backpacking stove. (*Demonstrate*) Place the pan on rocks and lined with mineral soil so the heat does not scorch the ground.

4: Now, what about fuel? Standing trees, dead or alive, are home to birds and insects, so leave them alone. Fallen trees also provide bird and animal shelter, increase water

capacity of the soil, and recycle nutrients back into the environment. Stripping branches from standing or fallen trees also detracts from an area's natural appearance.

- Avoid using hatchets, saws, or breaking branches off standing or downed trees. Dead and down wood burns easily, is easy to collect and leaves less impact.
- Use small pieces of wood—no larger than the diameter of an adult wrist that can be broken with your hands.
- Gather wood over a wide area away from camp.
- Burn all wood to white ash, grind small coals to ash between your gloved hands, thoroughly soak with water, and scatter the remains over a large area away from camp.
- Replace soil where you found it.
- Scatter unused wood to keep the area as natural looking as possible.
- Pack out any campfire litter. Plastic items, foil lined wrappers and left over food should never be burned in a campfire.

S: Now, imagine we are camping in the mountains. The air is a bit chilly as our group begins preparation for the evening meal. We plan to build a fire to cook hot-dogs and heat cans of chili. The fire will also take the chill out of the night air. As we begin to pile sticks inside the fire ring, a ranger approaches our group and informs us that there is a ban on fires due to dry weather. There will be no fire.

The development of lightweight efficient camp stoves (*Show stove*) has encouraged a shift away from the traditional fire.

- Stoves are fast and flexible.
- They eliminate the need to search for firewood.
- They operate in almost any weather condition. A
- And they *Leave No Trace*.

The discussion related to stoves is short because they are so simple to use and require no special considerations. Stoves are usually the best option.

Principle #6: Respect Wildlife (5 minutes for 6 & 7 combined)

1: We have a responsibility to the wildlife and others when we are outdoors. Observe wildlife from a distance. Do not follow or approach them. Carry **(Hold up binoculars)** binoculars, a spotting scope, or a telephoto lens to view wildlife from observation areas and trails.

2: Never feed animals. Feeding wildlife harms their health, alters natural behaviors, and exposes them to predators and other dangers. **(Hold up scraps)** Even scraps can be harmful to wild animals. Wildlife that obtain human food become nuisance animals that are often killed by cars, dogs, or predators because they left the safety and cover of their normal habitat.

Protect wildlife and your food by storing food and trash securely. Animals often get into human trash, eating things such as **(Show wrappers)** plastic food wrappers, which can become trapped and clog their digestive systems. Human food also is not nutritious for wildlife and can cause tooth decay, gum infection, and ulcers. The chance of survival is slim when wardens must be called in to trap and relocate a bear or deer.

Control pets at all times, or leave them at home. Pets can be stressful to wild animals and may cause physical harm. Sick or wounded animals may bite, peck, or scratch. It is possible that the animal may have rabies or other diseases.

3: Avoid wildlife during sensitive times such as mating, nesting, raising young or winter. Quick movements and loud noises are stressful to animals. Travel quietly and do not pursue, feed, or force animals to flee. One noticeable exception is in bear country, where it is good to make noise so you do not startle the bears. In hot or cold weather, disturbance can affect an animals ability to withstand the rigorous environment.

Allow animals free access to water sources by giving them the space they need to feel secure. Ideally, camps should be located at least **200** feet away **(Show distance)** from existing water sources. This will minimize disturbance to wildlife and help ensure that animals have access to their drinking water.

With limited water in arid lands, desert travelers must strive to reduce their impact on the animals struggling for survival. You will be less likely to frighten animals by avoiding water holes at night.

Principle #7: Be Considerate of Other Visitors

4: One of the most important components of outdoor ethics is to be courteous toward other visitors. It helps everyone enjoy their outdoor experience. Keep in mind that visits to seldom-used places require an extra effort to travel quietly.

Be courteous. Yield to other users on the trail. Groups leading or riding livestock have the right-of-way on trails, and bikers should yield to both equestrians and hikers.

Hikers and bicyclists should move off the trail to the downhill side and stop when encountering pack stock. Horses are spooked easily, so stay motionless and talk quietly to the riders as they pass.

5: Take breaks and camp on durable surfaces and away from trails and other visitors. When selecting a rest area or campsite, choose a site away from the trail and away from other groups, where rocks or trees will screen you from view. Keep noise down in camp so as not to disturb other campers passing by on the trail.

6: Enjoy nature's sounds by letting them prevail. Avoid loud voices and noises. Many people come to the outdoors to listen to nature. Excessive noise, unleashed pets, and damaged surroundings take away from everyone's experience. So, keep the noise level down while traveling and, if you must *(Hold up radio)* bring a radio, tapes, CDs, or cell phone, use *(hold up headphones)* headphones so you will not disturb others.

7: Bright clothing *(Show examples)* and equipment, such as tents *(Show bright tent pitched out in the distance)* that can be seen for long distances, are discouraged. Especially in open natural areas, colors such as day-glow yellow are disturbing and contribute to a crowded feeling. To lessen visual impacts, choose colors that blend with the environment.

Dogs do not fit in the wildlife category, and allowing pets to run free can be unwelcome, because they can frighten people and leave behind unwanted "presents."

8: Remember, our open spaces and wildlands should be protected for future generations. It is up to us to keep them healthy, beautiful, and open to the public for recreation, reflection, and revitalization. Enjoy and learn from historical sites, but respect these sites and treasures.

Tread Lightly!: Motorized Vehicle Recreation

1: You are learning about Leave No Trace, which is about non-motorized forms of recreation. At this station we will discuss Tread Lightly which is about motorized recreation.

2: According to a national survey completed by the Forest Service in 2000, 36 million individuals drove off-highway for recreation using a four-wheel drive, ATV or off-highway motorcycle, with an additional 31 million going out on personal watercraft and snowmobiles. Many of us will use some form of motorized recreation outside of Scouting so it just makes sense to include this as part of our personal outdoor ethic. An additional 79 million Americans drive some type of vehicle to their recreation destination. That means that just about everyone who participates in outdoor recreation will use motorized vehicles in some manner.

3: The message is simple. Preserve the land! Respect critters you see. Make the commitment to follow Tread Lightly principles as summarized in the Tread Lightly pledge. You will notice that they relate to the Leave No Trace principles.

"T" in tread stands for **Travel and Recreate With Minimum Impact.**

"R" stands for **Respect the Environment and the Rights of Others.**

"E" stands for **Educate Yourself, Plan and Prepare Before You Go.**

"A" stands for **Allow for Future Use of the Outdoors, Leave it Better Than You Found it.**

"D" stands for **Discover the Rewards of Responsible Recreation.**

4: Everything you learn about Leave No Trace applies to Tread Lightly. All hikers, bikers, horses, and motorized vehicles can leave an impact. Some people feel motorized vehicles cause more damage than other forms of recreation because they are larger, can apply more power, and can cover more territory and should not be allowed on public lands for recreation. How would you feel if your favorite outdoor activity was not allowed on public lands?

Public lands are managed for multiple uses. That means motorized vehicles are, and should be allowed. There is nothing wrong with motorized vehicles just as there is nothing wrong with hikers, bikers or horsemen. Everyone needs to realize they have responsibilities to do everything they can to minimize their impact on the land.

5: At times your choices may not impact the land but can impact other people and their outdoor experience. Always think about what you are going to do before you start your engine. Let's review a few additional considerations when using an ATV or four wheel drive:

- ▶ **You want to make the commitment that you will only travel in areas that are open to your type of recreation.**
- ▶ **You will only travel on routes designated for motorized use.**
- ▶ **You won't create new routes or expand existing trails.**
- ▶ **You will have the right information, maps and equipment to make your trip safe, and know how to use them.**
- ▶ **You will make sure your vehicle is compatible with road and trail conditions.**
- ▶ **You will avoid sensitive areas like meadows and marshy areas.**
- ▶ **You will only cross streams at fords where the road or trail intersects the stream.**

6: You will also want to learn additional skills on how to properly cross obstacles, ravines, soft spots, and streams. How to turn around and travel on switchbacks without causing damage.

Some types of motorized recreation also require specific clothing or safety equipment for a safe experience. When snowmobiling you would want to wear a helmet, goggles or face shield, gloves, warm footwear and dress in layers.

To be safe in some activities you need to know rules specific to that activity. When boating you should know that a motorized boat always yields the right of way to sail boats, canoes, row boats and all other non-motorized watercraft.

7: Please remember that in an age where outdoor recreation is the sport of choice, it is important for everyone to do all they can to protect our land and water resources by making good choices.

As you head outside, remember it is your responsibility to exercise responsible outdoor practices. You can do this by learning more about and following the Tread Lightly and Leave No Trace principles and leave a good impression on the land and others.

Thank you!

TEACHING AIDS

Principle #1: Plan Ahead and Prepare

- Brain**
- Box of Macaroni & Cheese**
- Bag of Macaroni & Cheese (□ Box)**
- Compass**
- Topo Map**
- Backpacking Stove**
- Poncho**
- Water Purification Tablets**
- Water Purification Filter**
- First Aid Kit**
- Moleskin**

Principle #2: Travel and Camp on Durable Surfaces

- Soft Soled Shoes**
- Backpack**
- Water Container**
- Pictures of Cryptobiotic Soil**
- Stick**

Principle #3: Dispose of Waste Properly

- Bag of trash from a typical scout outing**
- Bag of Macaroni & Cheese**
- Reusable container**
- No cook food**
- Fish net**
- Nylon**
- 2 - Dishpan**
- Short stick**
- Trowel**

Principle #4: Leave What You Find

- Plastic flowers**
- Feathers**
- Pot sherds**
- Arrowheads**
- Pictograph**
- Camera**
- Sketch pad & pencil**
- Sleep pad**

Principle #5: Minimize Campfire Impacts

- Bag of white ash**
- Blackened rock**
- Mineral soil**
- Ground cloth**
- Waterproof match case**
- Lighter on string**
- Fire pan**
- 3 - Rocks**
- Fuel (wood)**
- Tinder**
- Kindling**
- Backpacking stove**

Principle #6: Respect Wildlife

Principle #7: Be Considerate of Other Visitors

- Binoculars**
- Food scraps**
- Plastic food wrapper**
- Radio**
- Headphones**
- Bright clothes**
- Bright tent**

Tread Lightly!: Motorized Recreation

- Toy truck**
- Toy boat**
- Toy Off Highway Vehicle (4 wheeler, etc.)**