



Name: \_\_\_\_\_ #: \_\_\_\_\_

## Games, Nature, & Experiments

### What is Leave No Trace?

**Estimated Time:** 20 - 60 minutes (per principle)

**Age range:** All grades (with guidance)

**What you need:** paper, writing utensil, printer (optional), additional materials are specified for each principle

#### **Background Information:**

“The Seven Principles of Leave No Trace provide an easily understood framework of minimum impact practices for anyone visiting the outdoors. Although Leave No Trace has its roots in backcountry settings, the Principles have been adapted so that they can be applied anywhere – from remote wilderness areas, to local parks and even in your own backyard. They also apply to almost every recreational activity. Each Principle covers a specific topic and provides detailed information for minimizing impacts.

“The Seven Principles are well established and widely known, but they are not static. The Leave No Trace Center for Outdoor Ethics continually examines, evaluates and reshapes the Principles. The Center’s Education Department conducts research – including publishing scholarly articles in independent journals – to ensure that the Principles are up to date with the latest insights from biologists, land managers and other leaders in outdoor education.”

**The 7 Principles - Leave No Trace Center for Outdoor Ethics**

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

#### **Instructions:**

Please see each of the seven Leave No Trace principles for ways to learn more about how to minimize your impact on the environment. The seven principles include:

- 1) Plan Ahead & Prepare: Know before you go
- 2) Travel & Camp on Durable Surfaces: Choose the right path
- 3) Dispose of Waste Properly: Trash your trash
- 4) Leave What You Find: Take photos, leave footprints
- 5) Minimize Campfire Impacts: Be careful with fire
- 6) Respect Wildlife: Be kind to animals
- 7) Be Considerate to Others: You are not the only visitors

## Games, Nature, &amp; Experiments

## 5) Minimize Campfire Impacts: Be Careful with Fire

**Estimated Time:** 20 minutes

**Age range:** All grades (with guidance)

**What you need:** 4-5 toilet paper rolls, tissue paper/construction paper (red, yellow, orange), 1-3 tea lights (flashlights and headlamps can also work), rolled-up socks, glue (or tape), scissors, paint (or markers)

**New Words**

An **environment** represents the natural world.

The **backcountry** refers to a wilderness area that is far away from most human activity.

**Introduction:**

Principle 5 of Leave No Trace is about understanding the necessity and importance of constructing a campfire with little (minimal) impact. Building a campfire is fun and enjoyable, but there are important aspects to consider before you start. Leaving behind *little to no impact* on the **environment** around you is always the number one goal, *especially* when you decide to build a campfire.

**Campfire Alternative Guidelines:**

- The best way to minimize impacts from campfires is to avoid using them, and instead use some alternatives.
- Alternatives include camp stoves, proper layers, and lanterns/flashlights/headlamps.
- Camp stoves save wood and cook food faster—without leaving a mess or the smell of food in your campsite.
- Campfires are a great way to stay warm, but having proper layers will keep you warmer for longer! Starting with thin layers like polyester and moving outward with a down/puffy jacket will keep you nice and toasty. When possible, always avoid using cotton fabric as a layer.
- Nighttime in the outdoors is a different kind of experience and fires produce a comfortable amount of light, but lanterns/headlamps can provide the same.
- Having portable light is very helpful outside, especially if you need to walk somewhere outside of camp and need to see where you are walking.

**Campfire Impact Guidelines:**

- When you choose to use a campfire, there are different ways to minimize your impact on the areas where you are camping.
- Wood is one of the main aspects of a fire. Ideally, you should locate down/fallen pieces of wood to use as kindling. Only use branches or sticks on the ground and avoid pulling/breaking branches on trees and bushes.
- If you are creating a campfire in the **backcountry** (or somewhere with no established fire rings), place large rocks around the campfire to help contain sparks and ash.
- The best place for a campfire is in a pre-established fire ring because they are made for one such purpose.
- Remember to always build a small fire and to let it burn down until nothing remains but coal/ash.
- Extinguish (put out) campfires with water—not dirt! Dirt can still hold a *lot* of heat, and you also run the risk of not fully extinguishing your campfire.

- Pour water over the ash and stir with a stick to make sure that the entire campfire is soaked with water.
- Never leave a campfire unattended until it is fully put-out!
- Lastly, before you leave an area, scatter any extra sticks or branches. If you are in the backcountry with no fire rings, it should look like no one was ever there.



If you find yourself outdoors deciding whether you should build a campfire, stop and ask yourself some questions:

*Do I need to have a campfire?*

*What kind of damage will a campfire in this location have on the environment?*

*Are there any restrictions in this area?*

*Do I (or my group) have the capabilities to create a minimal-impact campfire?*

Now that we've learned all about campfires and minimizing their impacts, it's time to build an indoor campfire. Gather the materials listed at the beginning of the lesson and follow the directions below to get started!



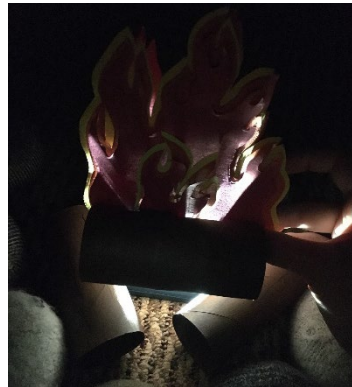
## Build an Indoor Campfire Activity

### Instructions:

1. Start by tracing out different size flames on red, orange, and yellow paper OR trace different size flames on cardboard and color them red, orange, and yellow. Then glue/tape them together—large to small.
2. *Optional: Color or paint toilet paper rolls to look like wooden logs.*



3. Place the toilet paper rolls and newly created flames together so that the flames are standing up, surrounded by the logs.
4. Take some socks and roll them up to form your “rocks.” Place them around the fire to make it safer!



5. To add light in the evening, place tea lights, headlamps, or flashlights in the middle of the campfire.
6. Enjoy!

### Sources:

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