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Leave No Trace: Principles for Ethical Outdoor Learning

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EDITORS' NOTE: Some of the American originated guidelines presented here utilize feet as a unit of measurement. The editors have converted these minimum distances from feet into metres.

A growing pool of research connects time spent in nature and green spaces with better physical and mental well being (Wicks et al., 2023). And we are listening. Outdoor spaces have never been busier (McDonald et al., 2022). However, as the popularity of outdoor activities grows, so does the potential for negative impacts on the environment. This is where the concept of Leave No Trace (LNT) comes into play. LNT, symbolized by the logo in Figure 1, is a set of principles designed to guide outdoor enthusiasts in minimizing their impact on natural spaces (Cole, 2018). This chapter will explore the value and ethics of LNT, including the concept of “authority of the resource.” Additionally, it will delve into each of the seven LNT principles, providing practical examples of how to integrate them into adventurous and environmental outdoor learning.

Figure 1: The Leave No Trace (LNT) logo.



The Value and Responsibility of LNT

One of the fundamental reasons behind the development of LNT principles is the recognition of the delicate balance within natural ecosystems. From towering mountains to serene lakes, these landscapes are interconnected networks of life, and any disruption can have far-reaching consequences (Shrader-Frechette & McCoy, 1995). We're not just talking about wilderness areas. City parks, neighbourhood paths and wilder areas are all susceptible to unsustainable use practices. By practicing LNT, individuals show respect for the intricate relationships that sustain these environments and for the experience of the people that will come after them.

The idea of LNT extends beyond mere practicality; they embody a sense of responsibility towards the places we visit. Imagine a scenario where every outdoor enthusiast left a trail of trash, disturbed wildlife habitats, and scarred landscapes. The result would be irreversible damage to the very environments we cherish. LNT is about making choices that protect these environments for current and future generations under the premise that each user is a responsible person outdoors who can always learn new ways to reduce or minimize their impact.

At the core of LNT is the concept of "authority of the resource." This principle acknowledges that the land and its resources hold a certain level of authority over how they should be treated. In essence, the environment sets the rules. As stewards of the land, it's our duty to listen and adhere to these rules, respecting the intrinsic value of the natural world.

The Scientific Background of LNT

The LNT guidelines are not just rooted in common sense. They are firmly grounded in scientific understanding. As such they are living things. Their scientific foundation is continually scrutinized and refined.

The LNT principles – such as minimizing campfire impact, disposing of waste responsibly, and

respecting wildlife – are not arbitrary. They are designed to align with ecological principles, environmental psychology, and the cumulative insights from various scientific disciplines. For instance, studies on soil compaction, vegetation growth, and animal behaviour contribute to our understanding of how human presence affects ecosystems (Cole, 2004).

Yet, the science underpinning LNT is not static. As our understanding of ecosystems deepens, culture and social norms change and new technologies emerge. The principles are subject to ongoing evaluation and adjustment (Simon & Alagona, 2009). Reconciliation with Indigenous groups demands we rethink the idea of leave what you find with traditional food gathering practices in mind (North et al., 2023).

In essence, LNT is a testament to the dynamic relationship between science and outdoor ethics. It underscores the importance of staying informed about the latest scientific discoveries, which in turn informs the evolving guidelines for responsible outdoor recreation. By embracing this evolving scientific basis, outdoor enthusiasts can ensure future generations will enjoy the same nature and outdoor experiences.

The History of LNT

The concept of LNT has evolved over time, reflecting humanity's changing relationship with the environment and our growing awareness of the impacts of outdoor recreation (Simon & Alagona, 2009). The history of LNT is a testament to the shift from exploitation to preservation, guided by principles that emphasize responsible enjoyment of natural spaces.

The roots of LNT can be traced back to the mid-20th century, when a surge in outdoor recreation raised concerns about environmental degradation (Marion & Reid, 2001). The 1960s saw the emergence of environmental movements that advocated for the protection of wilderness areas. During this era, the "pack it in, pack it out" philosophy gained momentum, marking a shift towards greater responsibility for managing one's

own waste and treating the environment with sensitivity and concern (Morton Turner, 2002).

The 1970s marked a pivotal period in the development of LNT. Organizations like the National Outdoor Leadership School (NOLS) in the United States started promoting wilderness ethics and minimum-impact camping techniques (Marion & Reid, 2001). These efforts culminated in the publication of the first official LNT manual by NOLS in 1979 (Marion & Reid, 2001). This manual introduced the foundation of LNT principles, such as minimizing campfire impact, disposing of waste properly, and respecting wildlife.

The 1980s and 1990s witnessed the widespread adoption of LNT principles by outdoor enthusiasts, educators, and land management agencies (Priest & Dixon, 1990). The LNT Center for Outdoor Ethics, founded in 1994, further formalized LNT education and outreach. The organization's research and collaboration with land management agencies led to the establishment of seven core LNT principles, which were first published in 1999 (Cole, 2018).

In the 21st century, as outdoor recreation continues to surge in popularity, the importance of LNT remains as critical as ever (Alagona & Simon, 2012). The history of LNT is a testament to the evolution of human attitudes towards nature, from conquering landscapes to coexisting with them. It stands as a reminder that our collective responsibility is not only to enjoy the outdoors, but also to ensure its preservation for future generations.

The Seven LNT Principles

1. **Plan Ahead and Prepare.** Thorough planning is the foundation of responsible outdoor recreation. Consider the following ways to practice this principle:
 - Research the area you'll be visiting, including regulations and weather forecasts.
 - Obtain the necessary permits and follow group size restrictions.
 - Prepare a detailed itinerary and share it with someone who won't be joining the trip.
2. **Travel and Camp on Durable Surfaces.** Minimize your impact by staying on established trails and campsites. Here's how:
 - Pack appropriate gear and clothing to minimize the need for altering the environment.
 - Stick to existing paths to prevent soil erosion and the creation of new trails.
 - Set up camp at least 200 feet (61 metres) away from water bodies to protect fragile riparian areas.
 - Use designated camping spots whenever possible to reduce trampling of vegetation.
3. **Dispose of Waste Properly.** Managing waste responsibly is crucial for preserving the wilderness. Follow these practices:
 - Pack out all trash, including food scraps and toilet paper.
 - Use established bathroom facilities if available; if not, dig a small hole at least 200 feet (61 metres) from water sources for human waste.
 - Strain dishwater and scatter it at least 200 feet (61 metres) away from water bodies.
4. **Leave What You Find.** Respect the environment's natural beauty and cultural artifacts. Consider these actions:
 - Avoid picking plants, disturbing historical sites, or removing rocks.
 - Leave natural and cultural features as you found them for others to enjoy.
 - Capture memories with photographs instead of taking physical souvenirs.
5. **Minimize Campfire Impact.** Campfires can scar the land and leave lasting damage. Follow these guidelines:
 - Use a camp stove for cooking instead of building a fire.
 - If fires are allowed, use established fire rings and keep fires small.
 - Use only small sticks and twigs found on the ground; do not break branches from living trees.

6. **Respect Wildlife.** Observing wildlife from a distance ensures their safety and the integrity of their habitats:
- Do not approach or feed wild animals; respect their space and behaviors.
 - Use binoculars and cameras to view animals without disturbing them.
 - Store food securely to prevent attracting wildlife to campgrounds.
7. **Be Considerate of Other Visitors.** Promote a positive outdoor experience by being courteous to fellow adventurers:
- Yield the trail to others and maintain a reasonable noise level.
 - Keep pets under control and clean up after them.
 - Share popular destinations, allowing others to enjoy the beauty of the outdoors.

Conclusion

LNT is more than just a set of guidelines; it's a philosophy that speaks to our role as custodians of the natural world. By embracing the principles of LNT, we ensure that the awe-inspiring landscapes we explore today remain vibrant and unspoiled for generations to come. Through ethical responsibility and the acknowledgment of the authority of the resource, we can all play a part in preserving the delicate balance of our planet's ecosystems. So, the next time you venture into the great outdoors, remember: Take only pictures, leave only footprints.

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Resources

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