OUTDOOR RECREATION LEADERS PROGRAM

INSTRUCTOR MANUAL

Name

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UTAH TECH UNIVERSITY

Southern Nevada Agency Partnership

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INTRODUCTION

The Outdoor Recreation Leaders Program (ORLP) is a diverse set of workshops designed to train both new and experienced individuals leading outdoor recreation activities to do so safely, sustainably, and more successfully. This program was developed in response to the increased use of public lands in Clark County and the need to help everyone conserve these incredible natural areas in our community for future generations to enjoy.

The History of the Outdoor Recreation Leaders Program

The development of the ORLP curriculum was funded by the Southern Nevada Public Land Management Act (SNPLMA) through the Engaging Communities project, a collaborative initiative led by the Southern Nevada Agency Partnership (SNAP) and other partners to promote community stewardship of public lands. As part of this project, Utah Tech University developed and implemented the **Outdoor Recreation Leaders Program (ORLP)** from 2020 to 2024 to support federal public land sites across Clark County, Nevada.

Utah Tech University was selected to lead the ORLP due to the success of its Outdoor Leadership Academy (OLA) and its established connections in Clark County. Founded in 2015 through a partnership between Utah Tech University and Grand Canyon-Parashant National Monument, OLA was created to reduce barriers for underrepresented young adults to experience public lands by providing impactful, nature-based opportunities. Over the years, partnerships with organizations such as Lake Mead National Recreation Area further strengthened Utah Tech's ties to the Clark County area, paving the way for the successful implementation of ORLP.

From 2021 to 2024, ORLP staff conducted over 50 workshops using the curriculum outlined in this workbook. The program also hosted college interns who contributed by researching best practices, assisting with workshops, and supporting curriculum development. ORLP collaborated with various Utah Tech undergraduate and master's-level classes for the design, development, and copy editing of this curriculum. Additionally, Clark County nonprofits and Meetup groups invited ORLP to partner on workshops, leading to lasting relationships with community organizations such as Blacks in Nature, Outdoor Afro, The Phoenix, and VegasHikers. These partnerships, combined with generous participant feedback after every workshop, helped refine and improve the curriculum. Local outdoor experts and public land agency staff also reviewed the feedback, ensuring that the materials were both relevant and high-quality.

The workshop topics for ORLP were selected by SNAP representatives to address the most pressing needs of Clark County public lands. To accommodate participants with varying levels of experience and time availability, the workshops were organized into three tiers:

- **Tier 1** includes introductory-level material tailored to participants with little to no outdoor experience.

- **Tier 2** features more advanced content for participants with some prior outdoor leadership experience.
- **Tier 3** was designed to provide formal certifications for outdoor recreation leaders. Although Tier 3 does not include specific workshops within the ORLP curriculum, recommendations for integrating certification opportunities are provided in the descriptions below.
- Over the course of the program, feedback from SNAP representatives and workshop participants informed the continuous refinement of the curriculum. Some topics were divided across multiple tiers to better address varying levels of participant experience. This feedback-driven approach ensured the program's adaptability and relevance, contributing to the overall success of ORLP.

The Three Tiers

Each tier of the ORLP curriculum is tailored to a specific audience; however, experienced instructors can adapt the content to suit either beginner or advanced participants as needed. Whenever possible, it is recommended to avoid a mixed audience of beginners and advanced participants, as balancing keeping the material accessible for novices while maintaining engagement for more experienced individuals can be challenging. If a blended group is necessary, consider leveraging the expertise of advanced participants by assigning them mentorship roles to support those with less experience. To better understand the skill levels and learning needs of your participants, it may be helpful to distribute a pre-workshop questionnaire to registered attendees prior to your event.

Tier 1: Basic Outdoor and Leadership Information

Tier 1 workshops are designed for participants with little to no prior experience in outdoor activities or group leadership. However, do not hesitate to engage more experienced leaders with Tier 1 modules, as many have reported gaining valuable insights and learning new skills through their participation.

The material is most effective with groups of 12 to 25 participants. While larger groups can be accommodated with the assistance of trained helpers or a co-leader, new trainers are encouraged to begin with smaller groups to build confidence and experience. Each workshop typically lasts 2–3 hours, though smaller groups may require less time to complete the material.

Instructors have the flexibility to teach workshops in the sequence presented in this workbook or to combine modules to meet the specific needs and experience levels of their participants. For instance, if the goal is to prepare participants for leading an overnight camping trip, you could present a series of sessions covering Core Camping Skills, Ten Plus Essentials, Trip Best Practices, Planning an Overnight Trip, and Trip Safety. This series could be delivered over a weekend, a week, or a longer period, depending on the schedule and goals.

For optimal participant engagement and information retention, limit the schedule to no more than three Tier 1 modules per day. If multiple workshops are conducted in a single day, ensure adequate time for meals, relaxation, and informal group interaction to maintain energy and focus.

Tier 2: Intermediate Outdoor Experiences

Tier 2 workshops build upon the foundational skills introduced in Tier 1 and are designed to be conducted over 1–3 days. Participants should ideally have prior experience as outdoor leaders or have completed several Tier 1 workshops before enrolling in Tier 2. These workshops are structured to foster progressive skill development and practical application throughout the duration of the activity, such as camping or backpacking. To maintain participant engagement, divide the material into manageable segments and incorporate enjoyable activities or breaks between sessions. The recommended time for each workshop accounts for these breaks.

To provide a more personalized and effective experience, Tier 2 workshops should be limited to smaller groups. Many activities, such as gear evaluations, are time-intensive and less suitable for larger groups. Additionally, campsite and trail group size restrictions often dictate the maximum number of participants. Given the comprehensive nature of Tier 2 workshops, we recommend including 1–2 knowledgeable assistants to support instruction and ensure the smooth execution of activities.

Tier 3: Advanced Outdoor Leadership Certification

During the original ORLP program, Tier 3 workshops were facilitated by certified professionals using nationally recognized curricula. These workshops provided experienced outdoor recreation leaders with opportunities to develop advanced skills and earn recognized certifications. Typically requiring extended trips of a week or more, Tier 3 workshops were resource-intensive and costly to organize. If you or your organization are considering offering Tier 3 workshops, here are several important factors to consider:

1. **What certification is needed and why?**
   Determine the certifications most relevant to your participants' needs. For example, ORLP offered Wilderness First Aid (WFA) certifications based on participant feedback. Additionally, the program was prepared to provide Wilderness First Responder and Leave No Trace Teacher and Master Educator trainings. Understanding the specific requirements of your audience will help guide your planning and resource allocation.
2. **How will the costs be covered?**
   Tier 3 workshops often incur significant expenses, including certified instructor fees, venue or campsite rentals, lodging, meals, supplies, and participant incentives. Offering free certifications can be highly appealing, as demonstrated by the long waitlists for ORLP's workshops. However, no workshops reached full capacity due to registrants dropping out, often too late to recruit others from the waitlist. To mitigate this, consider implementing a refundable reservation fee or requiring participants to pay upfront with refunds issued upon course completion. This approach can reduce "no-shows" while maintaining accessibility.
3. **Who is eligible to participate?**
   Establish clear eligibility criteria in collaboration with your partners. For instance, ORLP restricted Tier 3 registration to individuals who had completed a Tier 2 workshop and demonstrated how they had applied their training in leadership roles. This ensured that limited resources were invested in active trip leaders. Your organization may have different priorities or funding structures, so eligibility guidelines should align with your specific goals.

4. **What prerequisite trainings are required for certification?**
   Many advanced certifications, such as Wilderness First Aid and Wilderness First Responder, require participants to hold current CPR certification. If you are partnering with an organization to deliver training, be sure to confirm any prerequisites or additional requirements before recruiting participants.
5. **What alternatives can you offer if you are not providing Tier 3 workshops?**
   If offering Tier 3 workshops is not feasible, consider providing participants with information about other certification opportunities. Emphasize local programs, if available, to make these opportunities more accessible.

By carefully addressing these considerations, you can effectively design and implement Tier 3 workshops or guide participants toward other avenues for advanced training. These workshops can provide valuable certifications that enhance participants' skills and leadership capabilities while supporting the overarching goals of outdoor recreation education.

Getting Started

Teaching others to lead outdoor groups is both a rewarding endeavor and a powerful way to build community with like-minded individuals. We hope this workbook serves as a valuable resource as you begin serving your community as an instructor.

The content in this workbook has undergone extensive review and refinement by ORLP and SNAP staff. While these materials reflect the collective expertise and experience of the contributors, we encourage you to adapt and expand upon them to incorporate insights from your own experiences. If you modify or adapt the materials, we kindly ask that you credit the ORLP program and indicate the changes made from the original version. Please note that the examples and scenarios provided in this workbook are intended for instructional purposes only and should not be considered definitive plans for trips. Instructors and trip leaders bear the responsibility of tailoring their plans to the unique needs of their participants, researching the chosen location, and preparing for the specific activities involved. The examples provided should be used as guides, not substitutes for thorough preparation.

This manual is not a replacement for prior outdoor experience. Instructors should possess proficiency and field experience in the topics covered by each workshop before leading sessions. If additional training is needed, resources are listed in the appendix to support your preparation. Be sure to allocate time for training assistant instructors and volunteers as needed.

Most public land sites—including federal, state, and municipal parks, refuges, and forests—have specific regulations and permit requirements for organized groups and activities like ORLP-style workshops. Once you have selected a location for your workshop, we recommend consulting the site's website for the most up-to-date information regarding permits, regulations, and other requirements. This is especially critical for Tier 2 and Tier 3 programs, which are more likely to involve campgrounds, trails, or other on-site facilities.

Helping others learn to lead outdoor groups is an immensely rewarding experience and a meaningful way to foster a sense of community. We hope these materials enhance your journey as an instructor and enable you to make a positive impact in your community. If you have any questions or comments, please do not hesitate to connect with us through the program's website at https://nvpubliclandspartners.org .

BEST PRACTICES REVIEW

Outdoor recreation educators play a critical role in delivering engaging, immersive, and impactful learning experiences. Their work requires the ability to design curricula that cater to diverse learning styles and identify effective strategies to foster participation. This involves striking a balance between providing participants with challenges that promote growth and ensuring a sense of safety and support.

A key framework employed by outdoor educators in curriculum design and evaluation is **Understanding by Design (UBD)**, also known as the "backwards lesson plan" (Wiggins & McTighe, 2000). UBD emphasizes defining clear learning objectives at the outset, which then guide the development of lessons and assessments. By combining action-to-reflection methodologies with experiential learning theory, UBD enables educators to create structured yet flexible learning experiences that meet curriculum standards (Kolb, 1984; Stremba & Bisson, 2009). In outdoor education, meaningful assessments—both formative and summative—enhance the learning process, rather than detracting from it. The natural environment serves as an unparalleled learning medium, fostering reflection, skill development, and growth through multimodal experiences (Gilbertson et al., 2006). These experiences encourage participants to develop decision-making skills, initiative, and accountability, empowering them to take ownership of their personal growth and apply it to future challenges.

The overarching goal of outdoor education is to create adaptable adventure programs that sequentially introduce challenges with varying levels of difficulty. This scaffolding approach helps ease participants into experiential learning within natural settings (Ewert, 1989). To achieve this, instructors must carefully calibrate the perceived risk of activities to prevent boredom or anxiety while providing an optimal level of challenge. Matching perceived risk to participants' capabilities ensures opportunities for growth while safeguarding their physical, mental, and emotional well-being (Stremba & Bisson, 2009). At ORLP, we prioritize creating an environment where participants experience an appropriate balance of fun and challenge while maintaining their overall safety.

Self-efficacy, defined as a person's belief in their ability to succeed, is central to ORLP's approach. By introducing participants to new activities, challenges, and situations, ORLP aims to foster positive growth in self-efficacy. Participants develop confidence in their capabilities, enabling them to tackle future challenges with greater assurance.

Flow, described as a state of deep focus, full engagement, and enjoyment, is another key concept integrated into the ORLP curriculum (Csikszentmihalyi, 1999). In adventure recreation, flow occurs when participants feel a sense of control and focus on the activity, resulting in effortless involvement and altered perceptions of time (Boudreau, 2020). Through thoughtful risk and challenge assignments, ORLP helps participants incorporate positive risk-taking into their lives, enabling them to achieve a state of flow.

The ORLP curriculum also emphasizes reflective learning, encouraging participants to examine prior experiences as a foundation for growth. Reflection occurs both before and after activities, promoting ongoing learning and deeper engagement throughout the experience.

As the field of adventure education expands, ensuring equity among participants is essential. ORLP is committed to educating diverse groups by recognizing differences not only in socioeconomic backgrounds but also in prior outdoor experience. This inclusive framework allows ORLP educators to utilize the

recreational elements of adventure education to enhance engagement and create meaningful experiences for participants of all backgrounds.

Understanding small group dynamics is another critical component of effective adventure education. By identifying patterns within group interactions and guiding participants through the stages of group development, ORLP educators support both leadership and collaborative growth (Stremba & Bisson, 2009).

In the context of anthropogenic climate change, outdoor education must evolve to meet the growing need for environmentally conscious practices. ORLP aims to educate participants not only about outdoor recreation but also about new environmental challenges. By integrating theoretical frameworks, experiential models, and carefully designed challenges, ORLP empowers participants to develop a deeper connection to nature while fostering a greater understanding of their role in its preservation.

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1.1 CORE CAMPING SKILLS: Stoves, Tents, and Fires

ABOUT

Brief Description

Learning and practicing camping skills ahead of your trip will help participants be prepared to quickly set up camp. They will be able to focus on the fun of their trip when they are there.

Learning Objectives

After this module, and with some practice, participants will be able to:

1. Set up a basic camping stove and use it to cook a simple meal
2. Pitch a tent and understand some basic differences in tent designs
3. Light a campfire and know basics around restrictions and wildfire prevention

Intended Audience

Ages 18+, or ages 12+ with parent or guardian supervision

Time

1-2 hours depending on activities included and group size

Materials Needed/Toolkit

Basic Stove Skills:

- Camping stoves for each small group: one canister stove and one larger Coleman-style stove
- Items for boiling water and/or food preparation
    - Pots and pans, grills, roasting forks, and so on
- Cold weather: Hot beverage supplies
    - Tea, cocoa, coffee to use with boiling water
    - Cups that can be used with hot beverages
- All-weather: Marshmallows for roasting on campfires

Building a Fire:

Fire rings or pans (ideally, one for each group)
Logs, kindling, tinder, and fire starter for each fire ring/pan
Fire extinguisher

Note: Having multiple fire pans, pop-up fire pits, or fire blankets allows you to run multiple stations and reduces cleanup.

Pitching a Tent:

- Tents -one for each small team (of 2-3 people)
    - Ideally have a variety of types of tents at different prices. Some examples include free-standing, semi-freestanding, and pop-up tents.

Location Setup

Tents and fires are best pitched and lit in an outdoor space. However, possible alternatives could include a parking lot or patio. If rain is a risk, consider a location with a covered area. Pitching non-freestanding tents is especially difficult without ground for stakes.

Group Size

Aim for no more than three people per group. Whenever possible, have several knowledgeable assistants. Try to have an assistant for every two groups during the campfire activity.

Alternatively, instructors can run this workshop as three stations (stoves, campfires, and tents). Each station should have an assistant or instructor.

Helpful Instructor Skills

Instructors should ideally have experience building campfires, pitching a variety of tents, and operating camp stoves. For campfire types, priority is cone-style fires, followed by a log cabin, platform, or star-style fires if there is additional time. If participants are bringing their own gear, instructors should familiarize themselves with those types of items before the workshop.

Sometimes discussions take up most of the time, leaving less time for hands-on activities. Instead of hearing from each participant in every discussion, try choosing a few at a time. Track who has participated in discussions and try to hear from different participants later in the workshop.

WORKSHOP

Introduction

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and your instructors. Keep it simple, and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, these can be directly stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of your experience level.

- Why is participation vital?
    - You never know what you don’t know.
    - Learning from others’ outdoor experiences is important for growth and development.

- Some statements that might help encourage the right group culture could include:
    - "It is important that you let each other try things out; even if they are struggling, don't do something for someone. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples.
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try out skills that we currently don't have.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker (10 min)

1. If your group is large, divide the group to encourage more sharing. Group size depends on time and your participants, but generally groups should not be much larger than six people if you want to keep this under 10 minutes.
2. Ask groups to discuss: What is the best outdoor adventure you've had? (3 min)
   Give a few examples to get people thinking: Hiking, picnic, bike ride, vacations, and so on -make sure to include some examples that are not very outdoorsy.
3. Now ask them to think about what made it a good trip. What things were you grateful to have on your trip? What did you wish you had with you? (3 min)
   Participants can answer this question in their manuals.

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

4. Regroup: Have each (or a sample of groups depending on time) group report out the items that made their trips great. As they identify things that fit into what you plan to cover in the workshop, it is good to highlight those.
5. List key points for trip planning that came up in discussion: using participant responses, list or summarize key items or components for outdoor trips. Below is a list of things we have heard from participants. They are flagged if they clearly fit into the following distribution of handouts.
    i. Fun group of people
    ii. Had a goal: To explore, for physical challenge, to see wildlife, to relax (Trip Best Practice)
    iii. Prepared with food and water (Ten Plus Essentials)
    iv. Fun schedule (Trip Best Practice)
    v. Transportation was planned and specified capable drivers (Trip Best Practice)
    vi. Everyone was prepared physically (Trip Best Practice)
    vii. Had money to complete the trip
    viii. Prepared for the weather (Ten Plus Essentials)
    ix. Leaders had a plan in case of an emergency (Trip Best Practice)

6. Transition: Use the discussion to arrive at the conclusion that trips are more fun and safer when you are prepared.
    a. Pass out the Ten Plus Essentials handout or have them look at them in their manuals in the Frequently Used Information section.
    b. Ask "What can be learned from those experiences?" Make connections with the Ten Plus Essentials. This helps participants see value in them.
        i. Example: "So you were freezing on a mountain? Seems like this was an insulation issue." Or "You got caught out in the dark and were prepared with light."
    c. "By learning these skills of using camping stoves, lighting campfires, and setting up a tent, you are preparing for key needs: food, shelter, and warmth."

Transition to activities

The following activities can be sequenced however it makes the most sense for your group. We recommend that larger groups (12 or more participants) be split up into 2-3 groups that can rotate around the three activities, but that requires having an instructor for each activity. If that is not possible, everything will take much longer than the indicated times. If the group is small, starting with the stoves give you time to boil water while doing other activities. NOTE: Do not leave stoves unattended.

These three activities cover three basic skills that everyone should know before going camping.

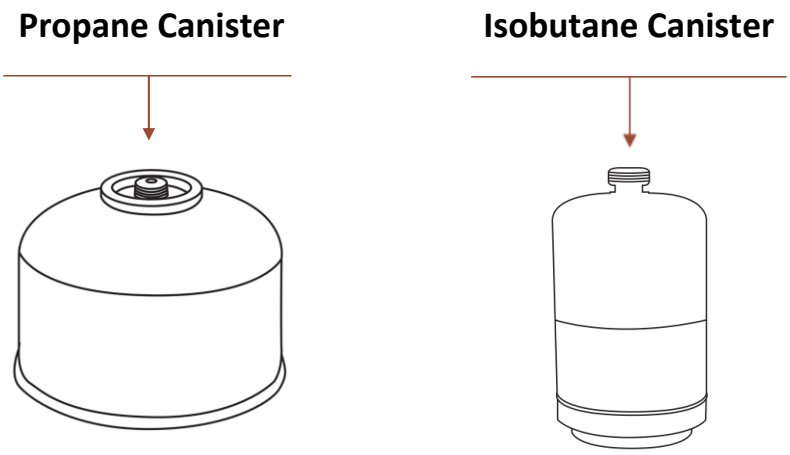
Objective 1: Camping Stoves

Instruction (5-15 min)

Introduce the types of stoves you have as examples to your participants. Explain that propane and isobutane fuels are not interchangeable, and that participants should consider the pros and cons of each to decide which stove and fuel to use. Pass around example fuels canisters and highlight the differences.

Canister Pros and Cons		
Type	Propane	Isobutane
Use	• Car camping • When weight isn't a factor	• Backpacking
Pros	• Can work in the cold • Setups are usually like a kitchen stove • Can fuel stoves with multiple burners • Stable • Great for large groups	• Lighter • More energy/volume (fuel lasts longer) • May come mixed with propane giving you the best of both worlds
Cons	• Heavy • Doesn't work well in wind	• Doesn't work as well in colder weather • Usually more expensive than propane • Usually fuels only one burner

Have your participants fill out their Canister Pros and Cons table in their manual while you share the information in your completed chart.



Highlight the attachments and how propane canisters have threads exposed while isobutane (and isobutane mixes) canisters have the threads recessed.

Talk about Setup, Tips, and Safety.

- Make sure you use the correct fuel for your stove. In most cases, fuel types are NOT interchangeable. Pure propane canisters will not connect with stoves designed for use with isobutane.
- Stoves that are burners that sit on top of fuel canisters will be safer on a flat surface. There are also commercially available supports that reduce the risk of a canister tipping over.
- Be aware that small stoves are not designed to hold large pots and that they can easily tip over.
- Sometimes igniters on stoves get damaged easily (see piezo lighters, which have a reputation for breaking easily), so have a backup igniter.
- Canister leaks have a distinct smell. Keep a nose out for it.
- Do not use stoves inside of a tent. In-tent use can cause carbon monoxide poisoning or tent fires. Food smells also attract animals.
- Canisters can be recycled. Carefully punch a hole through the sides of the canisters to vent any remaining gas. Recycle with mixed metals. Always research best practices for recycling and disposal.

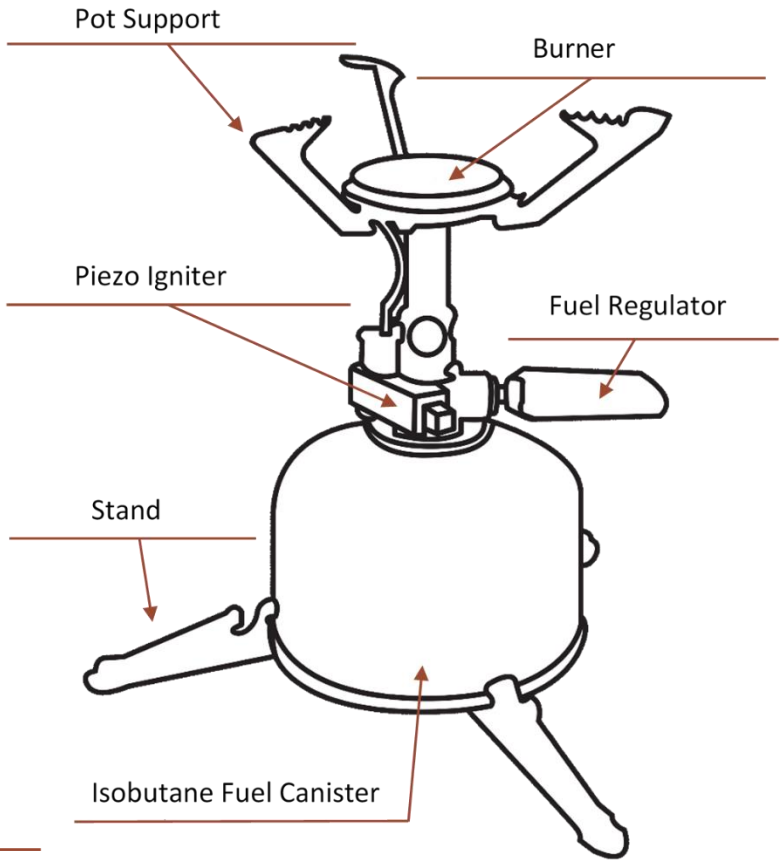
Activity: Using a Stove (10+ min depending on participants and stove numbers)

Have teams of 2-3 practice setting up and lighting stoves. Have each group boil a pot of water. You could have them cook a simple meal if time allows. Encourage participants to write down what they might need for cooking and eating their meals.

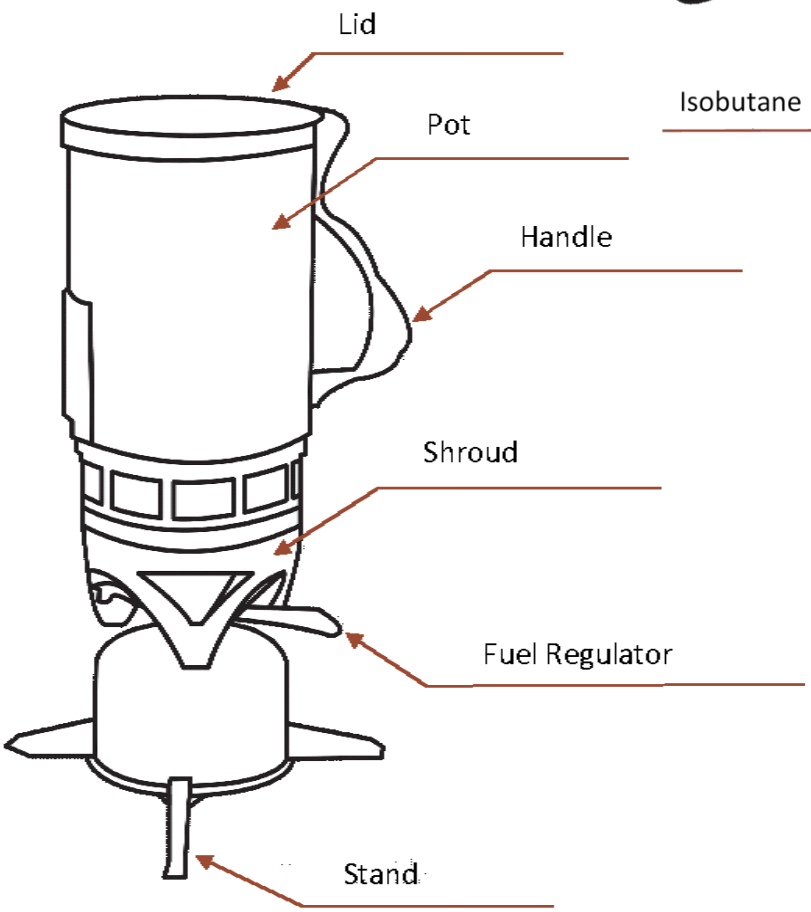
Activity: Label the Stove Diagrams (5 min)

Your participants have diagrams with word banks and labels in their manuals. Duplicate diagrams with the answer keys are provided here. Introduce the parts of different stoves and have them write the answers on the labels.

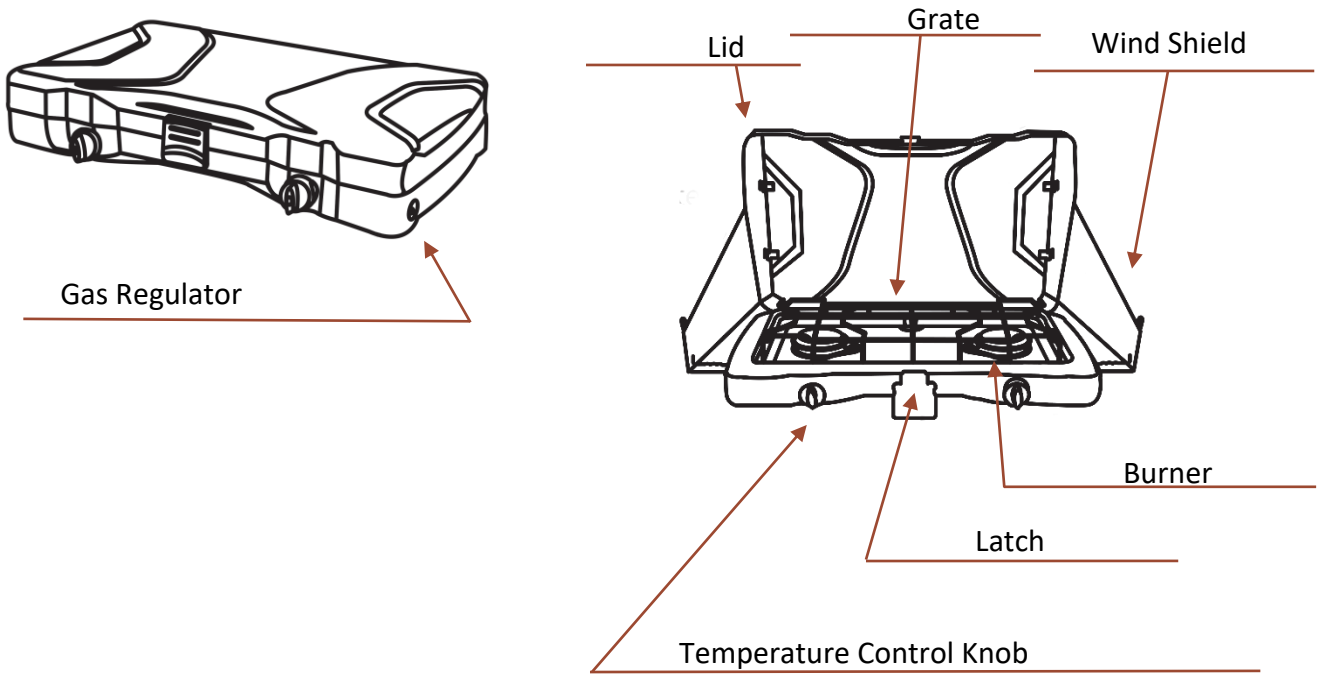
Canister Stove Diagram with Answers



Jetboil Stove Diagram with Answers



Coleman Stove Diagram with Answers



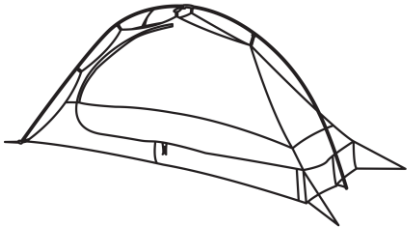
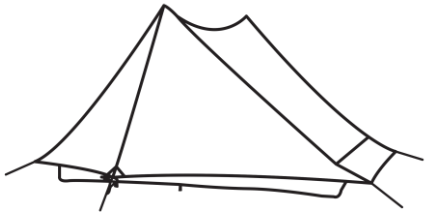
Objective 2: Setting Up a Tent

Instruction (5-15 min)

Many people fail to practice pitching their tents before they head out on a camping trip, which can lead to a lot of problems. The more practice you have pitching your tent, the easier it will be and the faster you will notice when something is broken. Teach the following information about tents and how to pitch them.

1. Where to set up your tent
    a. Developed campgrounds- Use established tent pads if provided
        i. Consider the slope of the ground. Your head position should be uphill.
        ii. Don't put your tent too close to a fire or smoke -smoke ruins the water proofing on tents.
        iii. Consider wind direction and place narrow ends of tents (if there are any) facing into the wind to reduce noise.
    b. Dispersed camping
        i. Camp in existing campsites and/or surfaces that resist trampling, like rock, sand, and gravel.
        ii. Reduce signs of camping when you leave.
2. Basic tent types -it is good to review all of these types (if you have access to examples of them) because there are inexpensive non-freestanding tents that get good reviews online and beginners might be tempted to buy them.

a. Freestanding vs. non-freestanding
    i. Have your participants label the three tents in their manuals as freestanding, semi-freestanding, or non-freestanding.
        1. Freestanding: The full shape of the tent is supported by poles and stakes are only needed to hold the tent down.
        2. Semi-freestanding: Most of the shape of the tent is supported by poles, but a few stakes are needed to pull out some corners. You could sleep in a tent without staking those corners, but the tent will not function well.
        3. Non-freestanding: While there may be a pole or hiking poles used to help support the shape of the tent, it will lay collapsed on the ground unless it is fully staked out.

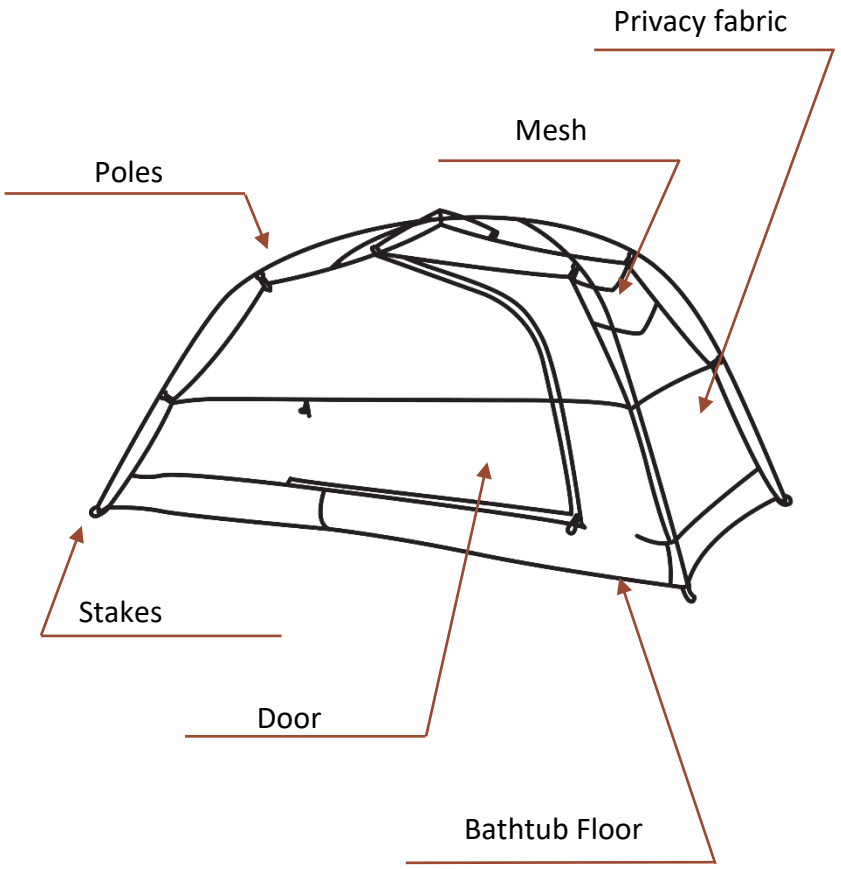
Freestanding	Semi-freestanding	Non-freestanding
		

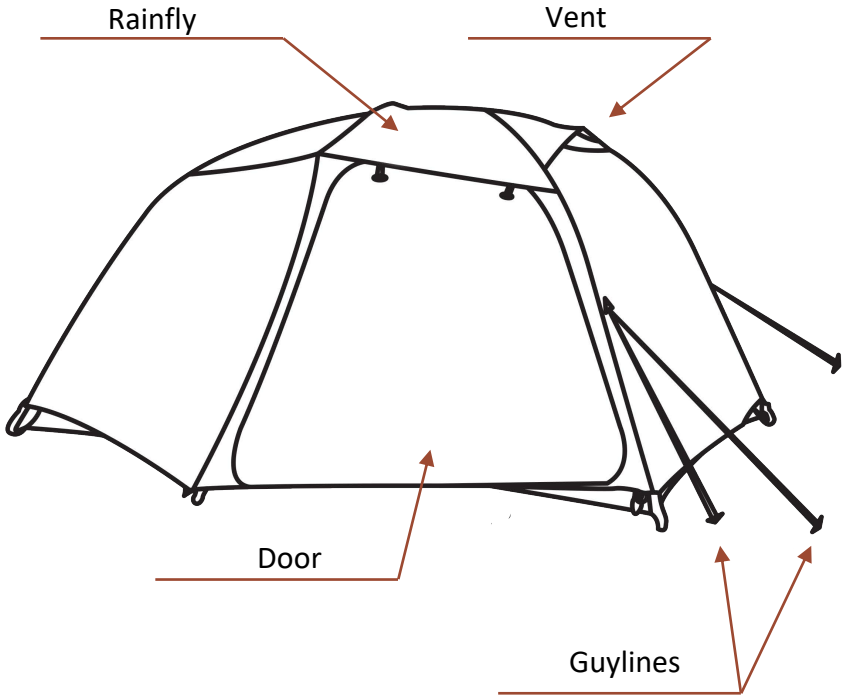
b. How the tent attaches to the poles
    i. Sleeves: Small fabric tunnel to guide tent poles into place.
    ii. Clips: Connect the edges of the tents to the poles; tension usually holds these in place.
    iii. Built-in (seen in various styles of “pop-up” tents).

3. Tent Components
    a. Rainfly: Waterproof cover that fits over the roof of the tent. It can be used for rain or for additional warmth. This will require additional stakes to properly function.
    b. Ground Cloth (or Footprint): A sheet of fabric that goes underneath your tent. It provides extra protection for the bottom of your tent. It is less expensive to replace a ground cloth than an entire tent. Ground cloths may attach to a tent, be made for a specific tent model, or be an inexpensive tarp. Those for specific models are called footprints.
    c. Stakes: Stabilizers for tents. Recommended for windy or stormy weather where your tent might blow away. Stakes may be necessary to keep the rainfly off the main tent or to add ventilation.
    d. Guyline: A cord used to tie down a tarp, tent or rainfly using stakes. They keep the rainfly away from the tent to prevent leakage. They also create stability against high winds or snow.

Activity: Labeling Tents Diagrams and Answers

Your participants have diagrams with word banks and labels in their manuals. Duplicate diagrams with the answer keys are provided here. Introduce the parts of a basic freestanding tent and have them write the answers on the labels.





Objective 3: Building a Campfire

Instruction (5-10 min)

Building a campfire is an intrinsic part of the American camping experience, but many people struggle to build them and rely on others. Even more people are unaware of proper fire safety. To start this section, review the following information with participants:

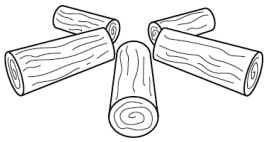
1. Fire Safety
    a. Fire hazards: "Nearly 85 percent of wildland fires in the United States are caused by humans. Human-caused fires result from campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson." Source: 2000-2017 data based on Wildland Fire Management Information (WFMI).
    b. Fire restrictions: Many areas have rules regarding where and when you can have a fire. When you plan to have a fire on your trip, research the area's rules thoroughly.
        i. Some places have different rules based on season and elevation.
        ii. Some don't allow fires at all.
        iii. Fire scars are like graffiti in wilderness areas
    c. Steps for extinguishing fires:
        i. Drown the campfire with water.
        ii. Mix the ashes and embers with soil and water.
        iii. Scrape partially burned sticks and logs to make sure all hot embers are off them.
        iv. Repeat previous steps.
        v. Everything should be cool to the touch before you leave the fire area unattended.
        vi. Hot coals can ignite dry material or even reignite with wind.
    d. Do not let children (or adults) run near fires.
    e. Keep waterproof gear away from smoke. It can affect the coatings.
    f. The only liquid fuel that should ever be used is lighter fluid, and that should be before a fire is lit. Gasoline can cause much more damage and is harder to control. Burning gasoline can also cause noxious fumes.
    g. Never leave a fire unattended, even if it is just smoldering. A leaf can fall on hot ash and catch fire. Follow the steps for extinguishing fires under Fire Policies (and in the participant manuals).
    h. Stoves are preferred for cooking and have less impact than fires.

2. Fire Location
    a. Existing rings are always the best choice.
    b. Portable fire pits work if there isn't an existing fire ring.
    c. Rock rings can be used but can lead to black scorching. Keep fires small to minimize scorching. Do not build fires near stone fences, caves, or areas that will create fire scars.
        i. Clear the ground of all flammables.
        ii. If the fire is on soil, build a mound of loose dirt to prevent creating a dead spot.
        iii. Avoid locations with overhanging branches.

3. Logs, Kindling, Tinder and other Fuels (it is good to have examples to pass around)
    a. Use local wood. You risk the area you enter when you use non-native wood. Non-native wood can introduce invasive insects or diseases. This is a major issue.
    b. Remove and properly dispose of anything that doesn't completely burn. Remove all signs that a fire existed.
    c. If gathering wood, check the area rules and do not bring saws or axes. Use wood on the ground you can break with your hands.
    d. Tinder needs to be dry and as small as possible -it should be easy to light on fire.
    e. Tinder examples
        i. Dry bark from fallen wood
        ii. Small wood shavings from logs
        iii. Fatwood: pine with resin
        iv. Commercial fire starters (usually something fibrous with an accelerant)
        v. Homemade fire starters (cotton balls and petroleum jelly or the equivalent)
    f. Kindling is typically small branches that can be easily broken by hand and will catch fire when placed over tinder.

4. Fire Starters
    a. Regular matches: Work fine but difficult in wind and rain
    b. Stormproof matches: Stay lit longer and work better in bad weather
    c. Lighter: May not work in extremely cold weather or high altitudes. Can run out of fuel.
    d. Ferro rod and striker: Require practice and dry, fluffy tinder. Stores well and lasts a long time.
        i. Ferro rods are not hard to use but require practice. If you have time, let participants try using them to light their fires. Doing so will likely increase the fire activity time to 25+ minutes.

5. Fire Shapes

CONE	PROS
	• Simple • Fast
	CONS
	• Doesn't last as long as other types • Prone to collapsing
CABIN	**PROS**
	• Easy to learn • Burns hot • Supports cooking
	CONS
	• Harder to maintain as you add logs
STAR	**PROS**
	• Uses less wood • A good campfire if you mostly have large logs to burn. • Very fuel efficient. • A good cooking campfire.
	CONS
	• Requires constant attention. • Not as hot as other types

a. Participants have diagrams with pros and cons charts for three types of campfire shapes in their manuals that match the table to the right. Invite them to fill out the charts while teaching them about the shapes.

Activity: Building a Fire (15 min)

Each group will need

- A fire ring, fire pit, or fire blanket (with a pile of dirt in place to save time)
- 3-5 logs (depending on fire shape)
- Kindling
- Tinder
- A lighter or other starter

10 minutes only allows each group to try building a cone fire. You will need more time and more rings, pits, or blankets if you want participants to build and light more fire types.

If time allows, you may cook a simple meal such as a hot dog. Cook on grills on the fire rings or on a camping stove.

Firestarter Activity (20+ min)

As an additional activity, participants can create their own fire starters.

Examples

- Sawdust or dryer lint in cardboard egg crates with paraffin wax melted on top.
- Hydration tablet tubes or other small plastic containers with cotton balls and petroleum jelly.
- Hydration tablet tubes or other small plastic containers with cotton rounds dipped in paraffin wax.

Wrap Up

Review the objectives. Ask for everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a discussion. Use one or more of the following prompts to get participants to think about how they can apply what they have learned and to serve as a call to action to apply and share what they've learned with others.

- How many people have pitched the tents they own? How many will go home and practice pitching them after the workshop?
- How many have fully set up the stoves they own on their own and cooked on them? Will they do it now?
- What is one thing they will do differently the next time they build a fire or go camping?
- How will participants use the skills they learned in the workshop?
- How will they pass the skills on to others?
- You could focus on campfires and ask more specifically about those, given their impact on public lands.

Notes

1.2 TRIP BEST PRACTICES

ABOUT

Brief Description

Learning these outdoor principles will help your participants have more fun and safety on their trips. They will also learn how to keep the outdoors a great place for many people to enjoy.

Learning Objectives

After this module, and with some practice, participants will be able to:

1. Know and apply the principles of the Trip Best Practices*
2. Understand how visitors can impact public lands in positive and negative ways (and be motivated to choose positive options!).

*A full list of the Trip Best Practices is in the Frequently Used Information section of the participant and instructor manuals.

Intended Audience

Ages 18+, or ages 12+ with parent or guardian supervision

Time

1.5-3 hours depending on activities included

Materials Needed/Toolkit

- Trowels for cathole station (enough for group that will be at that station at one time)
- Two WAG bags: One open for demonstrations and one closed
    - Alternatively, provide a set of open ones for everyone to try out “using” them
- Durable surfaces cards (rock, sand, gravel, snow, trail, grass, moss, wildflowers, wetlands, steep slopes, cryptobiotic soil)
- A stove or two to boil water -and potentially something to drink with the water (cocoa, coffee, etc.)
- Pots for the above stoves -ideally smaller ones so water boils quickly
- Ten Best Practices Handout (list is also in Frequently Used Information in both manuals)
- Ten Plus Essentials Handout (list is also in Frequently Used Information in both manuals)
- Instructor Completed Trip Form for workshop location or nearby site

Location Setup

This activity can be done anywhere. An outdoor site is preferred so participants can walk around and discuss where the best places are to put a tent, walk on a hike, and set up a fire.

Group Size

No more than 15-20

Helpful Instructor Skills

Outdoor experience is helpful, but not mandatory. It is more important to be able to facilitate a discussion and help participants brainstorm how to have a fun and safe trip. Practice all of the skills demonstrated until you are comfortable with them if you choose to do them (cat hole, lighting a stove, using a WAG bag).

WORKSHOP

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and the objectives of this lesson. Establish a positive learning environment by discussing the following:

- Why is participation vital?
    - You never know what you don't know.
    - Learning from others' experiences is important for growth and development.
- A potential introduction might say:
    - "It is important that you let one another try things out; even if they are struggling, give them space to figure things out. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Safe space vs. brave space
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - "We learn when we take risks and try something new. I will not judge you as you make mistakes; I expect you to do the same with me. Explore, ask questions, give me respectful feedback, and I will do the same."

Icebreaker (10 min)

1. If your group is large, divide the group to encourage more sharing.
2. Discuss: What is the best outdoor adventure you've had?
   Give a few examples to get people thinking: hiking, picnic, bike ride, vacations, and so on
3. Discuss: What made it a good trip? What things were you grateful to have on your trip? What did you wish you had with you?
   Participants can answer this question in their manuals.
4. Regroup: Have each group repeat key items that made the trip great.
5. List key points for trip planning: using participant responses, list or summarize key items or components for outdoor trips.
    - Potential list
        - Had a goal: to explore, for physical challenge, to see wildlife, to relax

- Prepared with food and water
- Fun schedule
- Transportation was planned and had good drivers
- Everyone was prepared physically
- Had money to complete the trip
- Prepared for the weather
- Leaders had a plan in case of an emergency

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

6. Transition: Use this discussion to arrive at the conclusion that trips are more fun and safer when you are prepared.
    a. Pass out the Ten Plus Essentials handout or have them look at them in their manuals in the Frequently Used Information section.
    b. Ask "What can be learned from those experiences?" Make connections with the Ten Plus Essentials. This helps participants see value in them.
        i. Example: "So you were freezing on a mountain? Seems like this was an insulation issue." Or "You got caught out in the dark and were prepared with light."
    c. "By learning how to use camping stoves, light campfires, and set up a tent, you are preparing for key needs: food, shelter, and warmth."

Objective: Trip Best Practices

Instruction (10-15 minutes)

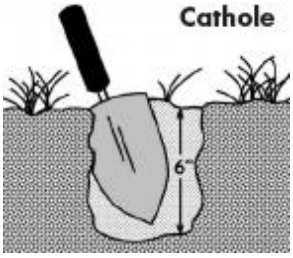
Teach the Trip Best Practices to your participants. Have them write the practices on the blanks in their manuals and any notes they wish to take. There is also a completed list of the Trip Best Practices in the Frequently Used Information section of their manuals.

1. **Plan ahead & prepare. (See Trip Form)**
    - This includes
        - Trip's purpose
        - Trip location and itinerary
        - Trip leaders and contact information
        - Permit requirements
        - Weather report
        - Safety management
        - Equipment list
        - Trip budget
        - Trip participant list & their emergency contacts
2. **Camp & travel on durable surfaces.**
    - Camp in existing campsites and/or surfaces that resist tramping, like rock, sand, and gravel.
        - Participants have a chart in their manual to write durable and non-durable surfaces.

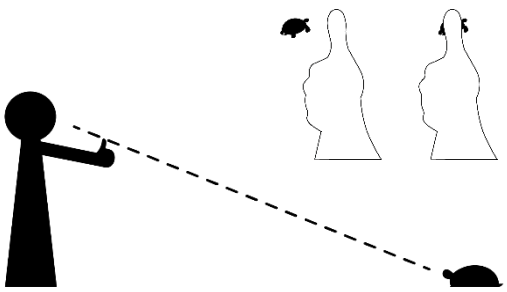
- Durable: rock, sand, gravel, snow, trail, grass
- Non-durable: moss, wildflowers, wetlands, steep slopes, cryptobiotic soil

o Limit visible impact on the land by traveling on existing paths. Be careful about using social trails.

3. **Dispose of waste properly.**
   a. Use provided trash cans and dumpsters at developed campgrounds.
      i. On busy weekends, trash cans and dumpsters can be full. Bring heavy-duty bags so you can haul garbage home if necessary.
      ii. Do not burn trash unless it can completely burn in your fire. Remove and properly dispose of anything that doesn't completely burn.
   b. Pack it in, pack it out.
      i. Do a sweep of your camp to make sure there is no litter, food, or trash behind—even if it isn't yours.
      ii. Do not let trash blow away—animals become campground pests if they find food there.
4. **Dispose of human waste properly.**



   a. Use trailhead outhouses to minimize what you must pack out.
      i. Don't throw trash into latrines. They are emptied using a pump system. Trash must be manually removed with great expense and difficulty.
   b. Do not leave any trash or human waste within 200 ft of waterways.
   c. Deposit solid human waste in catholes dug at least six inches deep, four inches wide and at least 100 ft away from trail and camp. Cover and disguise the cathole afterwards.
   d. Pack out toilet paper and hygiene products. This can be done with a zippered plastic bag and duct tape.
   e. In popular areas, canyons, or alpine areas, please use a WAG bag and pack out all your human waste.
5. **Minimize campfire impacts.**
   a. Use camp stoves instead of campfires.
   b. If you use a campfire, use existing fire rings. Do not build fires near stone or areas that will create fire scars. Remove all signs that a fire existed.
   c. Be aware of fire restrictions. Many national parks restrict fires.
6. **Leave what you find.**
   a. Take photos of plants and cultural artifacts instead of taking the objects themselves. This helps others be able to enjoy them as well.
   b. Avoid introducing or transporting non-native species.
   c. Do not build structures, furniture, or dig trenches.
7. **Be considerate of wildlife & people.**
   a. Watch wildlife from a distance. The recommended distances are around 25 yards for small animals and 100 yards for large animals.
   b. The "rule of thumb" is a helpful tool for estimating distance for viewing animals. You



should be far enough away that your thumb totally blocks your view of the animal if you extend your arm and look at the animal.

8. **Recognize the needs of your group.**
    a. Consider the age, abilities, and experience of the group when planning an activity.
        i. For example, consider sharing gender assigned bathrooms if you have a large group to save important packing time or daylight.
9. **Familiarize yourself with the policies of the land you are visiting.**
    a. Agencies have different policies on groups, camping, permits, and so on.
    b. Often state and federal lands overlap tribe lands, which can have unique policies as well. Find out if you will be visiting a tribe's land and read their policies for visitors.
    c. State and federal agencies follow different laws. Be sure to comply with them to the best of your ability.
        i. Examples
            1. Cannabis is illegal federally and is illegal on any federal land, even if that land is in a state that has legalized it.
            2. Vaping and smoking indoors is illegal in Utah and California with limited exceptions and not allowed in federal buildings.
            3. Nevada bans guns in state parks unless they are unloaded in a vehicle or on a concealed carry permit holder. Firing a gun is illegal even in self-defense. National parks allow open carry but defer to state laws regarding concealed carry.
            4. Alcohol is generally allowed away from vehicles and outside of buildings.

Activity: Learning Stations (75 minutes -2.5 hours)

Break the participants into groups of 3-5 for cycling through stations that teach different principles of the Trip Best Practices. Below are activities for the different stations. You may have time to do some or all, depending on your situation. Rotate between the stations every 5 minutes.

1. Durable surfaces activity (10-15 min)
    a. Create individual pages with pictures of or the names of different types of surfaces. Give the pages to participants in random order and have them work together to arrange them in order of most durable to least durable. There may be more participants than cards, so make sure that individuals not holding cards provide feedback about where the cards should go.
        i. Durable surfaces: rock, sand, gravel, snow, trail, grass
        ii. Non-durable surfaces: moss, wildflowers, wetlands, steep slopes, cryptobiotic soil
    b. Another version is Durable Surfaces Memory (modified from Nevada Outdoor School).
        i. This is a memory game mixed with learning and recognizing durable and nondurable surfaces. Participants stand in a circle. In the middle, spread out durable and non-durable surface pages face down in a 5x5 grid so that each row has several durable surfaces listed. Surfaces can be duplicated.
        ii. One by one, they step onto a blank card and turn it over and read what it is and determine if it is a durable surface or not.
            1. If it is a durable surface, they may stay there until the next turn when they will either move forward, sideways or diagonal one card then turn the original card back over.

2. If it is not a durable surface, they must turn it back over and then go back to their starting location.
   iii. Every time they move to a new card, they follow the above steps.
   iv. Participants take turns moving one block at a time. The first person to cross from one side to the opposite side on durable surfaces wins.
2. Learn how to dig a cathole and practice (10-15 minutes)
   a. Make sure you have enough trowels for the people in one group to dig at the same time.
   b. Use an area that is already disturbed.
   c. Have participants dig holes
      i. 6-8" deep
      ii. 4-6" wide
   d. Suggest pre-digging holes for night or early morning use if dispersed camping (just fill back in any unused ones).
   e. Pack out toilet paper or use a backpacker bidet.
   f. Do not leave menstrual products in a cathole.
3. Play with WAG bags (5-15 minutes) -can be included with the cat hole activity if kept short
   a. Have fun giving a demonstration (with your clothes on) and making it fun with different "relief positions."
   b. Examples: squatting, lunging, back-to-back, tree hugging, etc.
4. Show a camp stove as an alternative to a campfire for cooking (15 minutes)
   a. Use what you have and boil water in a smaller pot.
   b. Highlight that the stove complies with fire restrictions that require on/off switches for flames.
   c. Also highlight the ease of clean-up because there is no soot.
5. Demonstrate the "rule of thumb" for watching wildlife (5-15 minutes depending on discussion)
   a. Have everyone try it with a partner. One partner is the viewer and one is the "wildlife."
   b. The viewer holds up a thumb in front of them like a hitchhiker and attempts to completely obscure their view of the "wildlife."
   c. Discuss the animals that participants are most likely to see at your location and talk about how to safely interact with them.
6. Brainstorm a list of behaviors for a "considerate list" and an "inconsiderate list." (15 min)
   a. Considerate behavior examples: saying hello, using headphones or earbuds, picking up trash, giving room on a trail to pass people, quieting down during quiet hours.
   b. Inconsiderate behavior examples: yelling, cutting people off, playing loud music, littering, cursing loudly.
7. Review a trip plan for a local area. (15-60 minutes)
   a. Provide copies of your completed trip form and briefly walk participants through the type of trip you were planning.
   b. If time is limited, read through the full form and highlight what you did and why.
   c. If you have more time, provide blank copies of the form and allow them to partially fill them out.
      i. Brainstorm ideas for locations after participants describe the type of group they lead.
      ii. To save time, you can assign pairs of participants to work on different sections and then report out.

Wrap Up (10+ minutes)

Review the objectives. Ask for everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group. Lead a discussion and use one or more of the following prompts/calls to action and have participants write their ideas down in the notes box at the end this workshop.

- What is one new thing you learned today?
- What is one skill you will apply the next time you go on an outdoor adventure?
- What trip are you planning right now that you will now change based on what you've learned today and why?
- How will you share what you've learned today?
- What is one skill you learned today that you will teach to your friends/family?
- Reflecting on your previous trips, what is something you learned today that could have made your life easier on a trip where you had problems? How will that influence future trip planning?

Notes

1.3 TEN PLUS ESSENTIALS

ABOUT

Brief Description

Are you prepared for common accidents and emergencies on outdoor trips? You may have heard of the ten essentials–a list of items you should always carry just in case. In this module, you will help the participants review the basic ten essentials plus a few more important ones. You will help them understand why they can be important when in the wilderness. You will provide examples of different items that can help them carry the full list, so that they can see what would work best for their situations. If you have the budget, participants will build kits they can take home of frequently overlooked items from the list. But remember that having the items isn't enough–participants need to know how to use what they carry so be prepared to provide information on how they can learn more after this workshop.

Learning Objectives

After this module, and with some practice, participants will:

1. Know the Ten Plus Essentials*
2. Understand the purpose and need for them
3. Have a plan on inexpensive ways to get their own Ten Plus Essentials

*A full reference list with notes of the Ten Plus Essentials is in the Frequently Used Information section.

Intended Audience

Ages 18+, or ages 12+ with parent or guardian supervision

Time

1-2 hours depending on activities included

Materials Needed/Toolkit

- Ten Plus Essentials list from Frequently Used Information
- Examples of Ten Plus Essentials
- Inexpensive Ten Plus Essentials items for participants to take home. Examples include:
    - Branded sunglasses, hats, or sunscreen
    - Water treatment tablets
    - Cheap compasses (make sure they work)
    - Mylar blankets or sleeping bags
    - Emergency ponchos
    - Lighters or stormproof matches

Location Setup

This activity can be done anywhere. It is best if there is plenty of room to spread out items on tables.

Group Size

Any size group will work for this, but larger groups will need more space to spread out kit supplies. Smaller groups allow for more discussion on the purpose and need for the Ten Plus Essentials.

Helpful Instructor Skills

Instructors should have a good understanding of how the Ten Plus Essentials are used and needed in outdoor trip scenarios. Experience using them on trips or wishing you had them is also helpful.

WORKSHOP

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and your instructors. Keep it simple and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, these can be simply stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of your experience level.

- Why is participation vital?
    - You never know what you don't know.
    - Learning from others' experiences is important for growth and development.
- Some statements that might help encourage the right group culture could include:
    - "It is important that you let one another try things out; even if they are struggling, don't do something for someone. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples.
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try something that we currently don't have skills.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker (10 min)

7. If your group is large, divide the group to encourage more sharing.
8. Ask groups to discuss: What is the best outdoor adventure you've had? (3 min)

    Give a few examples to get people thinking: hiking, picnic, bike ride, vacations, and so on - make sure to include some examples that are not very outdoorsy.

9. Now ask them to think about what made it a good trip. What things were you grateful to have on your trip? What did you wish you had with you? (3 min)
    Participants can answer this question in their manuals.

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

10. Regroup: Have each (or a sample of groups depending on time) group report out the items that made their trips great. As they identify things that fit into what you plan to cover in the workshop, it is good to highlight those.
11. List key points for trip planning that came up in discussion: Using participant responses, list or summarize key items or components for outdoor trips. Below is a list of things we have heard from participants. They are flagged if they clearly fit into the following distribution of handouts.
    - Fun group of people
    - Had a goal: to explore, for physical challenge, to see wildlife, to relax (trip best practice)
    - Prepared with food and water (10+ essentials)
    - Fun schedule (trip best practice)
    - Transportation was planned and had good drivers (trip best practice)
    - Everyone was prepared physically (trip best practice)
    - Had money to complete the trip
    - Prepared for the weather (10+ essentials)
    - Leaders had a plan in case of an emergency (trip best practice)
12. Transition: Use this discussion to arrive at the conclusion that trips are more fun and safer when you are prepared.
    a. Pass out the Ten Plus Essentials handout or have them look at them in their manuals in the Frequently Used Information section.
    b. Ask "What can be learned from those experiences?" Make connections with the Ten Plus Essentials. This helps participants see value in them.
        i. Example: "So you were freezing on a mountain? Seems like this was an insulation issue." Or "You got caught out in the dark and were prepared with light."
    c. "By learning these skills of using camping stoves, lighting campfires, and setting up a tent, you are preparing for key needs: food, shelter, and warmth."

Objective: Learning About the Ten Plus Essentials

Instruction (10 min)

Ask the question: Do I have what I need to take care of my group if an emergency occurs?

You can adapt the Ten Plus Essentials to meet your group's needs. This list is meant as a guide. On a trip, not every individual needs to have all Ten Plus Essentials. For example, only a few people need navigation tools, but everyone might need sunglasses. The group together should have all the essentials covered. You could show participants a filled Trip Form to show a group's distribution of the Ten Plus Essentials.

Have participants write the Ten Plus Essentials in the charts in their manuals during the lesson. There is room for notetaking beneath each essential as well as room to write what participants have and need after the list.

10. Navigation: map, compass, & GPS system

- Navigation systems are used before your trip when planning your route. You use them during your trip when you need help orienting yourself in your surroundings.
- Know how to use a topographical or relief map as well as your compass or GPS unit before going out.

11. Sun Protection: Sunglasses, Sunscreen, & Sun Hat

- Sun protection is necessary to protect your skin and eyes from UV rays that can cause sunburn and skin cancer.
- Consider wearing sunglasses, sunscreen, and hats. Sun-protection clothing such as pants and long-sleeve shirts can also help minimize your exposure to the sun.

12. Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear

a. Nature is unpredictable. Be prepared for sudden changes in weather conditions. Pack an extra layer of clothing that reflects the most extreme weather conditions you could encounter.

13. Illumination: Flashlights, Lantern, & Headlamp

a. You will need to bring your own lighting for many outdoor adventures.
b. Flashlights, lanterns, and headlamps are great options. Headlamps are preferred because you don't need your hands to use them. Be sure to pack extra batteries.

14. First Aid Supplies

a. Be prepared for emergencies by packing first aid supplies with you.
b. Start with a pre-made kit and modify it to fit your trip and medical needs. Check the expiration date on all items and replace them as needed.
c. Consider including an emergency guide in case you are faced with an unfamiliar medical emergency.

15. Fire: Matches, Lighter, & Firestarter

a. Fire can be an emergency signal and a heat source for cooking and staying warm.
b. Pack matches (preferably waterproof) and fire starters (items that catch fire quickly and sustain a flame, like a lighter).
c. Familiarize yourself with the fire use regulations of your park before heading out.

16. Repair Kit & Tools: Duct Tape & Multi-tool

a. Carry a basic repair kit with you to help repair equipment. The kit should include items such as duct tape, a knife, and scissors.
b. Consider packing a multi-tool—a compact version of many tools that can include a knife, screwdriver, can opener, and more. Be sure to bring any tools specific to your trip and your activity.

17. Nutrition: Food Makes All the Difference

a. You should always be prepared for possible changes to your trip plans. Pack an extra day's supply of food. No-cook items that have good nutritional value will keep your energy high without much effort. Salty and easy-to-digest snacks like trail mix, nuts, and granola bars work well for outdoor activities.

18. Hydration: Water & Water Treatment Supplies

a. Staying hydrated on your trip is of utmost importance! Physical activity increases your risk of dehydration, which can lead to negative health consequences. Dehydration is a loss of water and salt from the body.
b. If you're active outdoors, especially in hot weather, you should drink water often and before you feel thirsty. Prepare your water before you need it and do not allow yourself to become dehydrated.
c. Before heading out on your trip, be sure to identify if there are bodies of water at your destination you could collect water from. Remember to treat your water using water treatment supplies.

19. Shelter

a. Shelter is one of the most important elements during an emergency survival situation. It can protect you from severe weather conditions and exposure to the elements. A tent, tarp, bivvy sack, or emergency space blanket are all lightweight options for emergency shelter.

(Ten Essentials from https://www.nps.gov/articles/10essentials.htm)

Plus Essential: Disposing of Human Waste

b. As outdoor spaces are being used more and more, it is critical for the public to be better equipped to dispose of human waste on public lands.
c. If there is not a restroom, please take a WAG bag. This is a disposable toilet kit with waste treatment powder or gel, toilet paper, and hand sanitizer. They are easy to use, sanitary, and easy to dispose of in a trashcan when you return from your trip. Use WAG bags in crowded areas where outhouses or portable toilets are not present, canyons, alpine areas, and places where it is hard to dig a cathole. Many models contain enough space and gelling powder to be used 3-4 times.
d. You should also learn how to dig catholes, where to dig them, how to pack out used toilet paper, and about alternatives like backpacking bidets.

Activity: Discussion (5-10 min)

Have examples of the Ten Plus Essentials out. If you can, have a variety of options within an Essential to show participants what is possible. If there are several instructors, have them each display their personalized Ten Plus Essentials. Ask them why they chose specific items over a different option.

Ask the group to raise their hands if they carry at least one of the items. Then ask if they carry at least two, continuing up to all of the items. This will highlight how few people carry all Ten Plus Essentials.

Unusual examples of essential items can make for good prizes for participants.

The most commonly missing items from the Ten Plus Essentials are water purification, shelter, and navigation. All three have cheap options for prizes (tablets, mylar sleeping bags, and compasses or park maps).

Activity: Build a Kit (20-30 min)

Set up stations with examples of each of the essentials. Have some example items for participants to take home (if your budget allows) and a list of items participants can incorporate from home.

Ten Plus Essential Item for Display	Take Home Item	Items Participants Are Likely to Have	Easy Ways to Add Items to Personal Kits
1. Navigation Compass & map	Inexpensive compass	Maps found on apps or websites like the AllTrails app or the Bureau of Land Management maps	Compasses can be bought from most outdoor stores or websites for $4-$20 per compass.
2. Sun Protection Sunscreen, sunglasses, brimmed hat, long-sleeved cotton shirt	Sunglasses or lip balm	Sunscreen, long-sleeved cotton shirts, hats with brims	Sunscreen can be bought at most grocery stores. Encourage participants to use clothing they already own.
3. Insulation Wool, fleece, or puffy jacket or sweater	n/a	Wool sweater, fleece, or insulated jacket	Encourage use of clothes participants already own. Discourage use of cotton for insulation.
4. Illumination Headlamp & extra batteries	Headlamp or other light to give away	Headlamp or flashlight	Headlamps can be bought at most outdoor stores or websites for $7-$20 per light.
5. First Aid Kit A simple and affordable first aid kit	Adhesive bandages or moleskin, a list of first aid supplies	Travel first aid kit	Bandages can be bought at grocery stores. Simple first aid kits can be bought for $8-$20 at most outdoor stores or websites.
6. Fire Waterproof matches, a firestarter stick	Waterproof matches	Waterproof matches or a flint scraper	Matchbooks can be bought from outdoor stores or websites cheaply.
7. Repair Kit & Tools duct tape, affordable multi-tool	Small duct tape roll	Pocket knife or multi-tool	Rolls of duct tape can be found at most outdoor stores or websites for $4-$5 per roll.

Ten Plus Essential Item for Display	Take Home Item	Items Participants Are Likely to Have	Easy Ways to Add Items to Personal Kits
8. Nutrition Samples of "extra food" like granola bars, protein bars, or GORP	Granola bars	Snacks and meals as appropriate for trips	Cliff bars or a similar nutrient-rich option
9. Hydration Water bottle & purification tablets, can also show a UV-pen or water filter	Water treatment tablets	Water for your activity, water filters, sterilizer	Tablets and powders for treating water are inexpensive options
10. Shelter Bivvy sack, rain or wind jacket	Emergency blankets	Large trash bags, wind jacket Note: Wind pants are great to have.	Emergency blankets can be bought at most outdoor stores or websites for $5+
PLUS. Disposing of Human Waste WAG bag	WAG bags	There are recipes to make homemade WAG bags.	WAG bags can be bought at most outdoor stores or websites for $3+ each.

Wrap Up

Review the objectives. Ask about everyone's confidence in and their understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a discussion. Use one or more of the following prompts to get participants to think about how they can apply what they have learned and to serve as a call to action to apply and share what they've learned with others.

- What is one item you will immediately add to your outdoor supplies because of this workshop?
- What is one new thing you learned today that you will teach others?
- How can you pass on what you've learned today to others? Let's brainstorm some plans to make it happen.
- What is a skill you have decided you need to learn based on this workshop? Folks might say learning how to use a compass or first aid, so come prepared with any local opportunities you know of for additional training, and review the resource section in the appendix.

Notes

1.4 DAY TRIPS

ABOUT

Brief Description

The secret to a successful outdoor recreation trip is to have a good plan. The weather can turn bad, equipment can break, and people can forget to bring equipment or supplies. Mishaps may happen, but a trip can still be fun with a good plan. Are you ready to help your participants make a good plan for a trip?

Learning Objectives

After this module, and with some practice, participants will be able to:

1. Determine intent, goals, and objectives for a day trip
2. Pick the right location to meet those objectives
3. Plan a trip considering key factors and logistics (safety, ability levels, group preferences, and so on)

Intended Audience

Ages 18+, or 12+ with parent or guardian supervision

Time

1-2 hours depending on activities included and group size

Materials Needed/Toolkit

Per participant:

- A Trip Form for each participant (from Frequently Used Information)
- Ten Plus Essentials handout (from Frequently Used Information)
- Trip Best Practices handout (from Frequently Used Information)
- Cell service or WIFI OR guidebooks and print outs of websites with location information to be used when practicing trip planning

Location Setup

This activity can be done anywhere. NOTE: If you are not using full participant workbooks, we suggest having clipboards for participants since so much of this workshop requires paper.

Group Size

A group between 12 and 25. Participants should be divided into groups of 2-3 people for better discussions and faster decisions.

Helpful Instructor Skills

Instructors should be knowledgeable about trip planning and have experience leading outdoor day trips to natural areas.

The facilitator becomes a planning coach for this activity. Spread experienced planners among different groups. At the end of this activity, beginner participants will have a good plan to implement and more experienced leaders will have a new trip planned.

Anticipate answering questions about trip participants that need accommodations. It's good to know how to accommodate dietary restrictions, medical needs, mobility challenges, vision challenges, and hearing challenges. Be ready to discuss and implement accommodations during this activity and provide resources that are doable for trip leaders. Encourage trip leaders to plan for accommodations and ask themselves if there is room for improvement on how they handled them.

WORKSHOP

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and your instructors. Keep it simple and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, these can be simply stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of your experience level.

- Why is participation vital?
    - You never know what you don't know.
    - Learning from others' experiences is important for growth and development.
- Some statements that might help encourage the right group culture could include:
    - "It is important that you let one another try things out; even if they are struggling, give them space to figure it out. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples.
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try something that we currently don't have skills.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker (10 min)

1. If your group is large, divide the group to encourage more sharing. Group size depends on time and your participants, but generally groups should not be much larger than six people if you want to keep this under 10 minutes.
2. Ask groups to discuss: What is the best outdoor adventure you've had? (3 min)
   Give a few examples to get people thinking: hiking, picnic, bike ride, vacations, and so on - make sure to include some examples that are not very outdoorsy.
3. Now ask them to think about what made it a good trip. What things were you grateful to have on your trip? What did you wish you had with you? (3 min)
   Participants can answer this question in their manuals.

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

1. Regroup: Have each (or a sample of groups depending on time) group report out the items that made their trips great. When their comments touch on a topic in this workshop, highlight it.
2. List key points for trip planning that came up in discussion: using participant responses, list or summarize key items or components for outdoor trips. Below is a list of things we have heard from participants. They are flagged if they clearly fit into the following distribution of handouts.
   i. Fun group of people.
   ii. Had a goal: to explore, for physical challenge, to see wildlife, to relax (Trip Best Practice)
   iii. Prepared with food and water (Ten Plus Essentials)
   iv. Fun schedule (Trip Best Practice)
   v. Transportation was planned and had good drivers (Trip Best Practice)
   vi. Everyone was prepared physically (Trip Best Practice)
   vii. Had money to complete the trip
   viii. Prepared for the weather (Ten Plus Essentials)
   ix. Leaders had a plan in case of an emergency (Trip Best Practice)
3. Transition: Use the discussion to arrive at the conclusion that trips are more fun and safer when you are prepared.
   a. Pass out the handouts or have them look at them in their manuals in the Frequently Used Information section.
   b. Ask "What can be learned from those experiences?" Make connections with how to plan trips. This helps participants see value in them.
      i. Example: "So you were freezing on a mountain? Seems like this was an issue planning for weather." Or "You got caught out in the dark and were prepared with light."
   c. "By thinking about what happened on other trips, it can help you learn better trip planning for future trips."

Discussion: Determining Intent, Goals, and Objectives for a Day Trip

Introduction (10-15 min)

Before starting this exercise, instructors should pass out the Trip Form. This activity can be done without the form, but the form helps guide participants through the thought process of planning. It helps participants focus their research when reviewing potential trip locations.

Instructor Example: Have a trip of your own as a preplanned example or use the one in the participant manuals at the back of the Day Trips module. The same form is at the end of this Day Trips module. If people are struggling to engage and are writing simple one-word answers, give them your scenario. Below we will have examples for each of the different parts.

1. **Think about intent.**
    - To start your planning, begin with answering "Why are we taking this trip?" This helps you tailor your logistics to meet this goal. Have the students write their intent in their manuals.

      Possible participant intentions for instructor preparation:

      - Fun
      - Social bonding
      - Relieve stress
      - Exercise
      - Promote a healthy diet
      - Personal or group challenge
      - Try something adventurous
      - Develop personal initiative
      - Develop confidence
      - Teach outdoor skills
      - Teach environmental education

Instructor Example: If you need help with an example, here is one to use or to inspire your own. Some friends and their children are visiting. They want to see the Red Rock National Conservation Area. They have not hiked before or done similar trips. What is your intent for planning a trip together? Possible answer: you want to give them a good and enjoyable experience. And/or you want it to be low intensity because they have lots of other things to do on their trip.

2. **Write goals and objectives.**
    - In small groups (or one group if you are planning one trip all together), have participants write down the goals and objectives for their trips in their manuals. Think of goals as the overarching experience to strive for. Think of the objectives as the measures or steps to achieving your goals.

Example goals for instructor use:

Goal: Have an affordable adventure with young children
Objectives: • Somewhere none of us have been before • Isn't too physically challenging • Has some educational plaques or things to learn from

Goal: A day trip hiking to promote a healthy lifestyle
Objectives: • Hike 3-5 miles on a moderate trail • Have everyone prepared to complete the hike   ○ Hikers need appropriate shoes, clothing, and a positive mental attitude • Have a healthy lunch, water, and snacks • Hike at a pace where people can get to know one another
Goal: A day hike to promote personal leadership
Objectives: • Set participants up for success by making sure they are well prepared for the day • Give everyone a role or responsibility for the day • Take time to talk about leadership • Choose a challenging hike so participants feel they accomplished something hard

3. **Pick a location that fits your objectives**
    a. In your small groups of 2-3, review the 3 suggested day trip locations. Use the internet to explore these sample hiking locations. Read through the descriptions. Groups should choose a location they feel best meets their goals and objectives. Most locations can be adapted to meet most goals and objectives, so encourage participants to commit to one quickly.

Potential Day Trip Locations*	Distance & Difficulty	Entrance Fee
Desert National Wildlife Refuge: Corn Creek Nature Trail	1.5 miles, easy	None
Spring Mountain National Recreation Area: Stanley B Springs Trail	3 miles, moderate	None
Red Rock National Conservation Area: Turtlehead Peak Trail	4.6 miles, hard	$15 per person

Instructor Example: We have dinner reservations for the evening, so we pick an easier hike closer to where I live to make sure we have time to get to the restaurant.

Objective 2: Determine the Logistics of Your Trip Plan

Activity: Discussion (20-60 minutes)

Now your participants know where they are going and why. Planning the trip logistics makes sure they get the right people in the right place with the right equipment to meet their goals. Answering the following questions when planning relieves stress by allowing everyone to be on the same page with the same expectations.

Have the participants complete their Trip Forms during the discussion. Completed Trip Forms can be shared with others and the organization. There is an example form at the end of this section that matches one that participants have in their workbooks.

Introduce each area of logistics and invite input from the group about things to consider for each. Participants may contribute items not included below that are still valuable. If you have a board or large paper to write on, listing items for each category can help you and your participants remember everything.

Invite participants to write the 12 areas of logistics to plan for on the blanks in their manuals as you teach them. They can then take notes on the things to consider for future trips in the blank lines below each of the 12 areas.

Go at a pace that works with the group, but break often for them to continue planning, researching, reviewing prior plans, and adjusting their current trip plan.

Logistics

1. Participant Considerations: Matching the trip experience with the participants
    - Who is going on the trip?
    - Are there any restrictions requiring accommodations, such as dietary restrictions, mobility restrictions, or medical concerns?
        - If you are paying for the costs of your group
            - Do you have the ability and budget to accommodate those needs?
            - It is often easy to pick an accessible trail or find mobility equipment to rent or borrow.
            - If you are unfamiliar with a dietary restriction, how will you learn enough for your participant?
            - Do not be afraid to ask participants to brainstorm with you about how to make a trip more inclusive for them.
        - If participants are covering their own costs for the trip
            - What can you do to help inexperienced group members figure out how to prepare for the trip?
            - Can you help them research places where adaptive gear can be rented?
            - Do you need to plan an extra stop on the way to your destination to get fresh ice for medications or an extra bathroom break?
        - Consider toilet facilities or the lack of them
            - Many people new to outdoor adventures are put off by pit toilets and may not want to come or may try to wait until they get home to go.
            - You may have a group with more women than men and the latrines or bathrooms might be single toilets with gender signs. How can you set a group policy to reduce wait times?
            - Trans people may feel unsafe in a shared restroom or using a gendered bathroom.
            - There may be no way to wash hands at the site.
            - People who are menstruating may not know that those products cannot be put into pit toilets, may not bring enough products with them, or may not know how to discreetly pack out their used supplies.
            - If there are no toilet facilities, have you discussed options with your group?
                - Should participants bring supplies for a cathole? Are they prepared to pack out any toilet paper?

        - Do participants need to bring WAG bags?
        - If so, what kind of privacy policy might your group need? The gender mix of your group might influence this.
    - What are the needed experience and skill levels for the activity proposed?
        - What is your group's actual ability compared to their perceived ability?
        - Do you have a plan for when someone overestimates their ability?
    - What expectations do I need to set for this group?
        - Consider things like loud talking, music, food (or sharing food), looking out for each other, leave no trace, etc.
    - How excited are group members to join this trip? What is their level of motivation?
        - Can you plan activities to get the group more excited or motivated?
    - Who are your participants? Do they have the skills and experience needed?
        - Have they done this type of trip before?
        - Have they been to the location before?
        - Have they led groups before?
        - Do they have any certifications that might be helpful?
    - What is the needed leader-to-participant ratio?
        - Is there an organizational requirement?
        - Different age groups need different ratios.
        - For responsible college students or older adults, 1 to 10 is great, especially if some participants are experienced enough to serve as leaders in emergency situations.

Instructor Example: Do you have any participants that are insecure about their physical abilities, suffer from poor body image, or experience dysphoria? If so, brainstorm ways to create safety and empowerment with them. For example, if they are a slow hiker, try to take the focus off them and assign someone to lead from the end - often called a sweep. When a slower hiker needs a break, have the end leader ask for a break so the slow hiker is not ashamed or overexerted. This only works if the groups stays together and doesn't let the slow hiker fall too far behind, so also consider setting some standard group policies to help with this.

2. Schedule & Itinerary: Knowing where we are going and how long it will take
    - What time are we leaving?
    - How long will the drive take?
    - How long will the activity take?
    - What time are we returning?
    - How will the day flow?
        - Driving time, driving breaks, activity time, activity breaks, and so on
        - Do any participants have time-sensitive needs like medications, religious practices, or dietary needs?
3. Driving Directions: Maps and location devices
    - Create a link with your favorite map app or use a trail app.
    - Do I need a physical or digital map? Where can I get a map?
    - Which navigation tools do I want to use? (Examples: Google Maps, Avenza, AllTrails)
    - What do I need to print out for backup or have in "offline" mode?

4. Permits: Do I need a permit or reservation? Always check!
    - Public lands have become busier. Some areas require online reservations to enter the area. There can be processing fees for the reservations.
    - Trips run by or for an organization can have different permit requirements. Educational trips sometimes get waivers for permit fees.
    - Forest Service: The general rule is that groups larger than 25 people, or groups providing commercial services, need permits. Check individual sites for user fees.
    - The Bureau of Land Management (BLM): Varies for each site. The best advice is to call the local BLM office and discuss the options for your group.
5. Transportation: How will we get to the trailhead?
    - How many seat belts do I need? How many vehicles do I need?
    - Do we need vehicles that can accommodate child seats?
    - Is anyone bringing a wheelchair or similar device that requires more than typical trunk space?
    - Will my car get there? Do I need ground clearance or four-wheel drive?
    - Do I need a shuttle?
    - Do I have reliable drivers?
        - Driving is probably the most dangerous activity your group will be involved in for your outdoor adventure. Take the time to make sure you have reliable drivers and transportation to minimize risks.
    - Are there any participants that get motion sickness? Is it related to their sitting position in the car?
    - Do any participants have a driving-related trigger like trauma from a car accident that needs to be accounted for?
    - If there is a longer drive, will any participants need a bathroom break?
    - What is the parking availability at the destination?
6. Communication: How will I communicate if an emergency happens?
    - Will I have reliable cell service where I am going?
    - Will I have reliable cell service during the drive to the destination?
    - Do I have the cell phone numbers for all the group leaders, chaperones, and drivers?
    - Do I have or will I need a portable cell phone charger?
    - If there is no cell service, what can I use for emergency communication?
        - Satellite beacons can be used outside of cell service.
    - Who is my emergency contact?
    - How will the group communicate if we are in two or more vehicles?
        - Identify points of contact for each vehicle.
7. Budget: How much will this trip cost?
    - How much will transportation cost? (Vehicles and gas)
    - How much will permits cost?
    - How much will food cost?
    - How much will supplies and gear cost?
    - How much does each participant need to pay? How will you handle participants who may not be able to afford this? Is there a way to include them?
    - When and how will everyone pay?

8. Gear & Equipment: Remember the Ten Plus Essentials
    - What food and water do I need for the trip? Is there water available at our destination?
    - Do I have what I need to take care of my group if an emergency occurs?
    - Ten Plus Essentials: You can adapt them to meet your group's needs. Longer descriptions are in the Frequently Used Information section of the participant and instructor manuals.
        - Navigation
        - Sun protection
        - Insulation
        - Illumination
        - First Aid Supplies
        - Fire
        - Repair Kit & Tools
        - Nutrition
        - Hydration
        - Emergency Shelter
        - Disposing of Human Waste
9. Weather: "The only ones who mind getting wet are those who are dry."
    - What does the weather forecast look like?
    - Under what conditions will I cancel my trip?
    - Am I prepared for the weather?
    - What is the most extreme weather I might face if we stay out longer than planned?
10. Resources: How can I learn about our trip and share what I know?
    - Site websites
    - Guidebooks
    - Blogs
    - If you need information about accommodations, try
        - The participant
        - Their parent(s) or guardian(s)
        - An expert in the field
            - Local university resources (cultural center, LGBTQ+ resource center, accessibility or disability resource center)
            - Local nonprofits
11. Trip Best Practices (see Trip Best Practices in Frequently Used Information)
    - Plan ahead and prepare.
    - Camp and travel on durable surfaces.
    - Dispose of waste properly.
    - Dispose of human waste properly.
    - Minimize campfire impacts.
    - Leave what you find.
    - Be considerate of wildlife & people.
    - Recognize the needs of your group.
    - Familiarize yourself with the policies of the land you are visiting.
12. Safety Management: If something goes wrong, what is the plan?
    - Who will serve as our emergency contact away from the group?
    - Where is the closest hospital?

- Who does Search and Rescue in the area?
- What steps will I follow in an emergency?
- What first aid training do I have? What first aid training do others have?
- Do any of the participants have health considerations?
- Does my organization have a waiver and release of liability form?
- Am I partnering with another organization that has their own forms?

Optional Activity: Basic Risk Management (5 min)

If you have time, invite participants to complete the Introduction to Risk Management activity in their manuals. They fill in the list of the following in workbook blanks for the Basic Risk Management Process.

Basic Risk Management Process

- Identify the hazards.
- Assess the hazards.
- Make a plan that addresses the hazards.
- Implement the plan.
- Continually assess your plan and make any necessary changes.
- Recognize you are your own best risk manager.

Activity: Presentations (10-20 minutes)

If there is additional time, pair off two smaller groups to present to each other. They will share their trip goals, objectives, and location. The other group will then ask questions about the logistics and see if they have a plan for that question or scenario. (Example: “Who in your group has the first aid kit?”)

Together as a larger group, you can finish the discussion with the following questions.

- What are you most looking forward to for this trip?
- What are you most worried about?

Wrap Up (5-10 minutes)

Review the objectives. Ask about everyone’s confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a final discussion. Use one or more of the following prompts to get participants to think about how they can apply what they have learned and to serve as a call to action to apply and share what they’ve learned with others.

- What is one thing they will do differently the next time they plan a day trip?
- How will participants use the skills they learned in the workshop?
- How will they pass the skills on to others?
- When are they planning their next trip and where will it be? Include follow-up questions about the plan and what they are going to do based on the workshop for that trip.

Notes

EXAMPLE TRIP FORM

Trip Name

Red Rock Canyon National Conservation Area

Trip Location

1000 Scenic Loop Dr, Las Vegas NV 89161

Trip Purpose and Objectives

Explore Red Rock and do a hike

Trip Leader 1 Name Jeni Scout	**Cell Phone #** 1-702-333-3333
Trip Leader 2 Name Tyler Hyke	**Cell Phone #** 1-702-555-5555
Trip Emergency Contact Friend Smith	**Cell Phone #** 1-702-444-5555

Checklist

- ☐ Permits Printed or Saved
- ☐ Weather Links sent to participants
- ☐ Driving Directions sent to participants
- ☐ Map or topo info sent to participants
- ☐ Additional resource info sent to participants
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

LIST OF VEHICLES

Tyler's Expedition

Jeni's minivan

RESOURCES

www.redrockcanyonlv.org

WEATHER REPORT (update morning of trip)

Sunny, lows of 48F and highs of 70F.

Check day of at

Check at Redrockcanyonlv.com/weather

TRIP ITINERARY

Date 04/20/2025

TIME	ACTIVITY	LOCATION
9:00am	Departure	Jeni's house (xxxx 4th St, Las Vegas)
9:15-9:45	Driving	Red Rock Canyon Entrance
10:00-12:00	Activity	Hiking Calico Tanks
12:00-1:00	Lunch	Picnic at the trailhead
1:00-1:30	Return	Return to Jeni's house

SAFETY MANAGEMENT PLAN

Address & Phone # of Hospitals (along the way and nearest to destination)

Summerlin Hospital Medical Center – 702-233-7000
756 Town Center Drive
Las Vegas, NV

Name & Phone # of Search and Rescue (County Sheriff)

Metro Police and Search and Rescue
Call 911 if it's an emergency.

List of Participants with First Aid Training (and their level of training)

Jeni has CPR and first aid

Checklist

- ☐ Communication Device or Plan (other than the leader's cell phone)
- ☐ Liability/waiver form for organization
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Emergency Response Steps

1. STOP and assess
2. Provide care to the injured based on your training
3. Decide if an evacuation is needed and make a plan
4. Communicate with:
   - Other Participants
   - Search & Rescue
   - Medical Assistance
   - Emergency Contacts
   - Your Organizations

TRIP BUDGET

Expense	Amount	Notes
Transportation	$50	Gas
Food	$50	Lunch
Permit	$30	Entrance fee
Supplies/Gear	$40	First aid kit
Total	$170	
# of Participants	10	
Cost per Participant	$17	

TRIP ROSTER

Name (role)	Contact #	Emergency Contact	Emergency Contact #	Health Considerations & Signs of Issues
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

TEN PLUS ESSENTIALS PACKING LIST

Navigation: Map, Compass, & GPS System	**Sun Protection: Sunglasses, Sunscreen, & Hat**
 Everyone has Gaia downloaded with the area downloaded for using offline	 Bottle of SPF 30 Hat Sunglasses
Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear	**Illumination: Flashlight, Lantern, & Headlamp**
 Fleece Jacket	 Headlamp with extra batteries
First Aid Supplies	**Fire: Matches, Lighter, & Firestarter**
 First aid kit	 Lighter and matches
Repair Kit and Tools: Duct Tape & Multi-tool	**Nutrition: Food Makes All the Difference**
 Duct Tape and Jeni has a multi-tool	 Snickers bar Pedialyte
Hydration: Water & Water Treatment Supplies	**Shelter**
 Camelback 32 oz Two extra bottles (24 oz each)	 Emergency blanket
Disposing of Human Waste	
 Use outhouses at trailhead and Tyler has a WAG bag for emergency needs on the trail	

1.5 CAMPING AND OVERNIGHT TRIPS

ABOUT

Brief Description

Once a leader is comfortable with day trips, a good next step is to lead an overnight camping trip. Instructors will help participants build upon their skills for planning a day trip and add what is needed for an overnight trip.

Creating a plan will help get the right people to the right place at the right time to have a meaningful experience. Like day trips, the weather can turn bad, equipment can break, and people can forget to bring things. With the right preparation, your participants will be ready to turn any mishap into a memory instead of a ruined trip.

Learning Objectives

After this module, and with some practice, participants will be able to:

1. Prepare an effective plan for an overnight outdoor group adventure.
2. Plan for safe food storage and meals to accommodate different dietary needs.
3. Select appropriate camping gear for location and weather conditions (with an emphasis on tents, sleeping bags, and sleeping pads).

Intended Audience

Ages 18+, or ages 12+ with parent or guardian supervision

Time

2-4 hours depending on activities included and the experience levels of the participants

Materials Needed/Toolkit

Per participant:

- A Trip Form for each participant (from Frequently Used Information).
- Ten Plus Essentials handout (from Frequently Used Information).
- Trip Best Practices handout (from Frequently Used Information).
- Cell service or WIFI OR guidebooks and printouts of websites with location information to be used when practicing trip planning.
- If instructors plan to do a gear review as part of this workshop, make sure to provide examples of tents, sleeping bags, and sleeping pads.
    - If groups are pitching tents, bring one for every 3-4 people.
    - Otherwise, one example each of a few types is sufficient.

Location Setup

This activity can be done anywhere if the workshop does not include the hands-on gear part of the workshop. If those activities are included, plan for a location with enough room outdoors to set up tents.

NOTE: If you are not using full participant workbooks for the workshop, we suggest having clipboards for participants since so much of this workshop requires writing.

Group Size

A group between 12 and 25.

Helpful Instructor Skills

Instructors should be knowledgeable about and have experience with camping and leading overnight outdoor trips.

The facilitator becomes a planning coach for this activity. Spread experienced planners to different groups. At the end of this activity, beginner participants will have a good plan to implement, and more experienced leaders will have a new trip planned.

Be prepared to answer questions about trip participants who need accommodations. It is good to know how to accommodate dietary restrictions, medical needs, mobility challenges, vision challenges, and hearing challenges. Overnight trips add additional complications resulting from the addition of meals and sleeping arrangements. Be ready to discuss and implement accommodation needs during this activity and provide resources that are doable for trip leaders. Encourage trip leaders to ask themselves if there is room for improvement in how they handled accommodations in past trips and to create a plan for making future accommodations.

Workshop

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and any fellow instructors. Keep it simple, and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, things below that resonate with you and your workshop goals can be simply stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of experience level.

- Why is participation vital? Here are some things you can use to motivate your participants:
    - You never know what you don't know.
    - Learning from others' outdoor experiences is important for growth and development.
- Some additional statements that might help encourage the right group culture could include:

    - "It is important that you let one another try things out; even if they are struggling, don't do something for someone. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples of things you can use/say:
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try something that we currently don't have skills.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker (10 min)

1. If your group is large, divide the group to encourage more sharing.
2. Discuss: What is the best OVERNIGHT outdoor adventure you've had?

    Give a few examples to get people thinking. If someone has not been on an overnight camping trip, they may have used a cabin or hotel for a multi-day trip that they can use. There is space in the participant manuals to write their favorite memories from overnight trips. There is space in the participant workbook to take notes.
3. Regroup: Bring everyone together and ask: What is the difference between a day outing and a camping trip?
4. List key points for planning overnight trips: Using participant responses, list or summarize key items or components for outdoor trips. Participants can answer "What do you need to make your overnight trip successful?" in their manuals during this discussion.
    - Potential list
        - Had a goal: to explore, for physical challenge, to see wildlife, to relax
        - Prepared with food and water
        - Fun schedule
        - Transportation was planned and had good drivers
        - Everyone was prepared physically
        - Had money to complete the trip
        - Great weather or Prepared for the weather
        - Leaders had a plan in case of an emergency
        - Campsite was reserved in advance
        - Bringing all of the gear you need

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

Discussion: Determining Intent, Goals, and Objectives for an Overnight Trip

Introduction (10-15 min)

Before starting this exercise, instructors should pass out the Trip Form if you are not using participant workbooks. This activity can be done without the form, but the form helps guide participants through the thought process of planning. It helps participants focus their research when reviewing potential trip locations. The intention here is to talk through the various factors that contribute to a good trip. Each item in the list below represents a broad category to explore with the participants. They may mention something that does not quite fit into the category; but try to be creative and steer the conversation back to the current topic. For example, someone might mention weather when talking about locations. To refocus, you could ask how weather might influence the choice of a site. For instance, a participant or instructor could mention that Mt. Charleston is a great choice in the summer when lower elevations are hot, but it can be too cold and snowy for hiking in winter unless you have specialized gear and vehicles. We encourage instructors to ask questions and allow participants to come up with appropriate answers whenever possible.

Instructor Example: Have a trip of your own as a preplanned example or use the one in the Participant Manual Overnight Trips module. The same form is at the end of this Overnight Trips module. If people are struggling to engage and are writing simple one-word answers, give them your scenario to work from. Below we will have examples for each of the different parts.

1. **Think about intent.**
    - To start your planning, begin with answering "Why are we taking this trip?" This helps you tailor your logistics to meet this goal. Have the students write their intent in their manuals.

      Possible participant intentions provided for instructor preparation purposes:

      - Fun
      - Social bonding
      - Relieve stress
      - Exercise
      - Promote a healthy diet
      - Personal or group challenge
      - Try something adventurous
      - Develop personal initiative
      - Develop confidence
      - Teach outdoor skills
      - Teach environmental education

Instructor Example: If you need help with an example, here is one to use or use to inspire your own. Several friends from high school and their spouses are visiting in July. You all want to get outside to relax away from the heat. You are all adults without children and one person uses a wheelchair.

2. **Write goals and objectives.**
    - In small groups (or one group if participants are planning one trip all together), have participants write in their manuals the goals and objectives for their trips. Think of goals as the overarching experience to strive for. Think of the objectives as the measures or steps to achieving your goals.

Example goals for instructor use:

Goal: A camping trip to relax and promote a healthy lifestyle
Objectives: • Have several activity options for those who want to do more than visit • Have everyone prepared with proper gear and clothing for the weather   ○ Remember that being outside for 24 hrs. is more intense than for a few hours • Share good meals and an evening campfire
Goal: An overnight trip to stargaze
Objectives: • Have everyone prepared with proper gear and clothing for the weather   ○ Remember that being outside for 24 hrs. is more intense than for a few hours • Take time to talk about how to use the telescopes and what you hope to see before dark • Make sure that everyone has what they need to be comfortable during a late night.
Goal: Have an affordable adventure with young children
Objectives: • Somewhere none of us have been before • Campsites are close to parking and things for kids to do • Preplanned easy to make meals so that the focus is on the kids having fun

3. **Pick a location that fits your objectives**
    a. In small groups of 2-3, review the 3 suggested overnight trip locations below.
    b. Use the internet to research these sample locations. Read through the descriptions.
    c. Groups should choose a location they feel best meets their goals and objectives. Most locations can be adapted to meet most goals and objectives, so encourage participants to commit to one quickly.

Potential Camping Trip Locations*	Types of Campsites	Fee (2024)
Lake Mead National Recreation Area Boulder Beach Campground	Regular and Group	$20-80/night
Spring Mountain National Recreation Area: Mahogany Grove Group Campground	Group	$138/night
Red Rock Canyon National Conservation Area: Red Rock Canyon Campground	Regular and Group	$33-88/night

Instructor Example: Given the example above, the need for wheelchair accessible sites and bathrooms must be considered. Fortunately, all three of these locations have some accessible sites and bathrooms as long as they are available for the dates you want. The individual campsites that are accessible are sometimes indicated on the Recreation.gov website with a small wheelchair symbol. Other times, the entire site is considered accessible and so the symbols are left off. Make sure you read the campground descriptions and reviews and visit in advance if you have any concerns regarding access.

Logistics for an Overnight Outdoor Trip

Activity: Planning Discussion (20-60 minutes)

This section is like the day trip planning module. It reviews key questions you should consider when planning an outdoor overnight trip. The first section is the same logistic list from the Day Trips module. Logistics specific to outdoor overnight trips are covered later, allowing you to modify this workshop if your participants have already completed the Day Trips workshop.

Planning the trip logistics makes sure they get the right people in the right place with the right equipment to meet their goals. Answering the following questions when planning relieves stress by allowing everyone to be on the same page with the same expectations.

Have the participants complete their Trip Forms during the discussion. Completed Trip Forms can be shared with others and the organization. If your participants are comfortable with planning day trips, you can lead a brief discussion reviewing them. If they are not, this activity may take longer than an hour in order to give each category time for full discussion. You may want to pull pages from the Day Trip module for them to use for their notes if you need to spend more time on those categories.

For each category that requires full discussion, ask the group about what things they think about when planning trips.

Invite participants to write the five planning categories of overnight logistics on the blanks in their manuals as you teach them. They can take notes on the things to consider for future trips in the blank lines below each of the four areas. There is not enough room to write the full discussion, only enough to highlight anything new for individual participants.

As an instructor, you can highlight some of these questions on a screen, whiteboard, or paper. Go at a pace that works with the group but break often for them to continue planning, researching, reviewing prior plans, and adjusting their current trip plan. Each trip planning category is followed by questions that a trip leader should ask themselves when creating a plan. In each, “you” refers to the trip planner (your participants in this workshop) and “participant(s)” refers to the people who will join them on their trip.

Day Trip Logistics Review (10-60 minutes)

1. Participant Considerations: Matching the trip experience with the participants
    - Who is going on the trip?
    - Are there any restrictions that require accommodations, such as dietary restrictions, mobility restrictions or medical concerns?
        - If you are paying for the costs of your group:
            - Do you have the ability and budget to accommodate those needs?
            - It is often easy to pick an accessible trail or find mobility equipment to rent or borrow.
            - If you are unfamiliar with a dietary restriction, how will you learn enough for your participant?
            - Do not be afraid to ask participants to brainstorm with you about how to make a trip more inclusive for them.
        - If participants are covering their own costs for the trip:

- What can you do to help inexperienced group members figure out how to prepare for the trip?
- Can you help them research places where adaptive gear can be rented?
- Do you need to plan an extra stop on the way to your destination to get fresh ice for medications or an extra bathroom break?

- Consider toilet facilities or the lack of them.
  - Many people new to outdoor adventures are put off by pit toilets and may not want to come or may try to wait until they are home to go.
  - You may have a group with more women than men, and the latrines or bathrooms might be single toilets with gender signs. How can you set a group policy to reduce wait times?
  - Trans people may feel unsafe in a shared restroom or using a gendered bathroom.
  - There may be no way to wash hands at the site.
  - People who are menstruating may not know that those products cannot be put into pit toilets, may not bring enough products with them, or may not know how to discreetly pack out their used supplies.
  - If there are no toilet facilities, have you discussed options with your group?
    - Should participants bring supplies for a cathole? Are they prepared to pack out any toilet paper?
    - Do participants need to bring WAG bags?
    - If so, what kind of privacy policy might you need? The gender mix of your group might influence this.

- What are the needed experience and skill levels for the activity proposed?
  - What is your group's actual ability compared to their perceived ability?
  - Do you have a plan for when someone overestimates their ability?
- What expectations do I need to set for this group?
  - Consider things like loud talking, music, food (or sharing food), looking out for each other, leave no trace, etc.
- How excited are group members to join this trip? What is their level of motivation?
  - Can you plan activities to get the group more excited or motivated?
- Who are the leaders? Do they have the skills and experience needed?
  - Have they done this type of trip before?
  - Have they been to the location before?
  - Have they lead groups before?
  - Do they have any certifications that might be helpful?
- What is the needed leader to participant ratio?
  - Is there an organizational requirement?
  - Different age groups need different ratios.
  - For responsible college students or older adults, 1 to 10 is great, especially if some participants are experienced enough to serve as leaders in emergency situations.

Our main example already includes someone using a wheelchair, which requires you to focus on specific types of campsites.

Additional Example for Instructor Use: Consider what you need if your group includes someone with celiac disease. This is an autoimmune disorder that causes the body to attack the small intestines and is triggered by the protein gluten. Individuals with celiac disease require their food, dishes, and cooking surfaces to be free of trace gluten. You not only need to plan your menu accordingly, but may need a separate set of cooking equipment depending on how well you clean things—especially items like cutting boards. Reach out to any participant with this need, and brainstorm with them how to plan the menu. They likely have a lifetime of experience dealing with the condition and can help. In some situations, it may be safest to have them bring and prepare their own food—this will likely require an extra cooler, if not more.

2. Schedule & Itinerary: Knowing where we are going and how long it will take
    - What time are we leaving?
    - How long will the drive take?
    - How long will the activity take?
    - What time are we returning?
    - How will the day flow?
        - Driving time, driving breaks, activity time, activity breaks, and so on.
        - Do any participants have time sensitive needs like medications, religious practices, or dietary needs?
3. Driving Directions: Maps and location devices
    - Create a link with your favorite map app or use a trail app.
    - Do I need a physical or digital map? Where can I get a map?
    - Which navigation tools do I want to use? (Examples: Google Maps, Avenza, AllTrails)
    - What do I need to print out for backup or have in “offline” mode?
4. Permits: Do I need a permit or reservation? Always check!
    - Public lands have become busier. Some areas require online reservations to enter the area. There can be processing fees for the reservations.
    - A campsite reservation does not necessarily include the entrance fee or backcountry permit for many locations.
    - Trips run by or for an organization can have different permit requirements. Educational trips sometimes get waivers for permit fees.
    - Forest Service: The general rule is that groups larger than 25 people or groups providing commercial services need permits if you plan to be on trails. Check individual sites for user fees.
    - The Bureau of Land Management (BLM): Varies from each site. The best advice is to call the local BLM office and discuss the options for your group.
5. Transportation: How will we get to the trailhead?
    - How many seat belts do I need? How many vehicles do I need?
    - Will my car get there? Do I need four-wheel drive?
    - Do I need a shuttle?
    - Do I have reliable drivers?
        - Driving is probably the most dangerous activity your group will be involved in during an outdoor adventure. Take the time to make sure you have reliable drivers and transportation to minimize risks.
    - Are there any participants that get motion sickness? Is it related to their sitting position in the car?

- Do any participants have a driving-related trigger, such as trauma from a car accident, that needs to be accounted for?
- If there is a longer drive, will any participants need a bathroom break?

6. Communication: How will I communicate if an emergency happens?
   - Will I have reliable cell service where I am going?
   - Do I have the cell phone numbers for all the group leaders, chaperones, and drivers?
   - Do I have or will I need a portable cell phone charger?
   - If there is no cell service, what can I use for emergency communication?
     - Satellite beacons can be used outside of cell service.
   - Who is my emergency contact?
   - How will the group communicate if we are in two or more vehicles?
     - Identify points of contact for each vehicle.
7. Budget: How much will this trip cost?
   - How much will transportation cost? (Vehicles and gas)
   - How much will permits cost?
   - How much will food cost?
   - How much will supplies and gear cost?
   - How much does each participant need to pay?
   - When and how will everyone pay?
8. Gear & Equipment: Remember the Ten Plus Essentials
   - Do I have what I need to take care of my group if an emergency occurs?
   - Ten Plus Essentials: You can adapt them to meet your group's needs. Longer descriptions are in the Frequently Used Information section of the participant and instructor manuals.
     - Navigation
     - Sun protection
     - Insulation
     - Illumination
     - First Aid Supplies
     - Fire
     - Repair Kit & Tools
     - Nutrition
     - Hydration
     - Emergency Shelter
     - Disposing of Human Waste
9. Weather: "The only ones who mind getting wet are those who are dry."
   - What does the weather forecast look like?
   - Under what conditions will I cancel my trip?
   - Am I prepared for the weather?
10. Resources: How can I learn about our trip and share what I know?
    - Site websites
    - Guidebooks
    - Blogs
    - If you need information about accommodations, try:
      - The participant
      - Their parent(s) or guardian(s)

        - An expert in the field
            - Local university resources (cultural center, LGBTQ+ resource center, accessibility or disability resource center)
            - Local nonprofits
11. Trip Best Practices (see Trip Best Practices in Frequently Used Information)
    - Plan ahead and prepare.
    - Camp & travel on durable surfaces.
    - Dispose of waste properly.
    - Dispose of human waste properly.
    - Minimize campfire impacts.
    - Leave what you find.
    - Be considerate of wildlife & people.
    - Recognize the needs of your group.
    - Familiarize yourself with the policies of the land you are visiting.
12. Safety Management: If something goes wrong, what is the plan?
    - Who will serve as our emergency contact away from the group?
    - Where is the closest hospital?
    - Who does Search and Rescue in the area?
    - What steps will I follow in an emergency?
    - What first aid training do I have? What first aid training do others have?
    - Do any of the participants have health considerations?
    - Does my organization have a waiver and release of liability form?

Overnight Specific Logistics

Participants have a little space to take notes in their workbooks on each of these topics.

1. Pre-trip the trip
    - Determine what gear you'll need, and practice setting it up to make sure it is still in good condition and is not missing any parts
    - Whenever possible, visit areas where you are planning activities beforehand. Check out the campsites you plan to use. Consider how many tents will be used rather than how many people you will have. Have someone from your group arrive early to the campsite to prevent confusion between your group and others over campsite and tent pad boundaries.
    - Check out potential water access, latrines or restrooms, and garbage facilities.
        - Plan for handling gendered bathrooms if necessary.
        - Note the availability of toilet paper, soap, and hand sanitizer. Determine if you should bring extra for your own group. Extra supplies may be used by others if left in shared facilities.
2. Types of campsites
    - Developed (with latrines or sometimes running water)
    - Tent only: You can usually drive a car up to it. There is room for a car but not an RV.
    - Dispersed or backcountry
    - Dry: No running water (some developed campsites are dry)

3. Food, water, & special diets
    - Meal planning
        - How much meal planning do you need?
            - This depends on the activities and participants. Plan for how much the people on the trip will eat, not just how many times. For example, teenagers are likely to eat more than young children.
        - Food storage
            - Store food away from animals. Try using bear canisters, bear boxes, or hanging your food. Sometimes storing food in the car is not a good idea.
            - Never have food in tents.
        - Cooking gear (pans, spatulas, and so on)
        - Stoves, campfires, and fuel (see gear)
    - Water: If there is no water at your site (dry campsite), take one gallon per person per day in addition to water used for cooking. You can put water in water coolers, "cubies," or collapsible water containers.
    - The internet has many good articles on how to plan camping meals for a group and special diets.
4. Hygiene
    - Personal hygiene
        - Hands: Use hand sanitizer and set up a hand washing station in camp, if possible. Wash hands before all meal preps.
        - Teeth: Each person needs to bring their own toothbrush and toothpaste.
        - Extras: Lotion and face wipes are often appreciated.
    - Kitchen hygiene
        - Food safety
            - Keep cold foods cold with fresh ice in a cooler. Replace ice as needed.
            - You can pre-cool coolers the day before a trip by filling them with ice. Switch for fresher ice when you add your food.
            - Keep all other food in sturdy plastic containers.
            - Place all food in cars or "bear boxes" when away from camp or sleeping. Check with area managers for food storage guidance.
        - Washing up: use three wash bins.
            - Pre-rinse
            - Dish soap and water
            - Rinse with a capful of bleach
5. Trash
    - Take heavy-duty trash bags.
    - Put trash in cars, a bear box, or a trash bin when away from camp or sleeping.
    - Be aware of the trash your group produces and minimize the risk of filling dumpsters. Filling dumpsters creates issues for staff and wildlife.

Instructor Tip: Once the trip forms are completed, take a break, if possible. Your participants have been sitting for a long conversation at this point.

Alternatively, if you plan to include the gear activities mentioned later, it might be good to break up the discussions by doing those activities before leading the remaining group discussions. You can also combine the gear activities with the discussion of things to do at the start of your trip. For example, when you discuss loaning gear, you can go over the sleeping bags and pads and let participants try them out. When you discuss setting up the campsite and where to pitch tents, you can have the tent race or allow participants to look at previously set up tents.

On the Trip

Once you have a trip planned, there are still a number of things you need to organize—especially if your group is not very experienced. If you are not combining this section with the gear activities that follow, give the group a short break and then bring them to discuss what needs to be done when you set up camp and when you take everything down. As always, we encourage you to solicit answers from your participants, and to list them in your notes or on a board if available.

Instructor Tip: At this point people may still be thinking about trip planning and may bring up things that should have been done in advance. As time allows, it can be worthwhile to allow these off-topic conversations if they add valuable information.

Discussion: What needs to happen at the start of trip?

Use the following as considerations at the start of a trip. For a successful trip, it helps to have gear set up properly at the start, allow people to know their jobs and responsibilities, and to develop group norms and safety policies as soon as possible. If there is enough daylight when starting a trip, things can be done in any order. In fact, if a trip leader does not know their participants well, they may need the first day to figure out personalities for the Camp Task Roles, and so that might be something they do quietly later the first evening of a trip.

Setting up Camp Checklist

- ☐ If loaning gear to participants, you may decide to have people check it before the trip or once you reach your destination.
    - Consider numbering items and tracking who is borrowing each one.
- ☐ If everyone is responsible for their own gear, consider doing a quick gear check before heading out.
    - This could happen at a pre-trip meeting or where you meet before heading out to your destination.
- ☐ If it is warm, coolers should be in the shade, if possible.
- ☐ Set up tents 15 ft upwind from any grills or fire pits.
- ☐ Make sure tents are being set up on established pads and are not encroaching on neighboring sites.
- ☐ Set up tents first. Have more experienced people help the less experienced.
- ☐ If necessary, demonstrate how to inflate sleeping pads.
- ☐ Do you need someone to fill up a water container(s)?

Assign Camp Task Roles

Participants in this workshop have a chart with responsibilities in their manuals, but the role names are missing. As you teach them, have participants write the names of the roles next to the responsibilities. If you have them assign people they know from previous trips to the roles, it can be helpful to take 10 minutes to discuss what skills or personality traits influenced the role assignments.

Participant Instructions: Assign roles to the members of a group you have worked with in the past. Remember, in a large group or for a long trip, it is wise to rotate the roles to share the burden of the needed work. Write the name of the role next to the responsibilities.

ROLE	RESPONSIBILITIES
Loader	Keep gear organized and protected. Load vehicles with heavy items first unless they need to be accessible. *(1-2 people)*
Pacesetter	Keep track of time and set the pace. Point out dangers and help others avoid them. *(1 person)*
Custodian	Assist everyone in keeping the camp clean. Inspect the camp for trash before leaving. Clean the kitchen area after cooking (though everyone cleans their own dishes after eating). *(2 people)*
Cook	Cook all meals for the group daily. This may include meal prep, serving food, and putting the food away in storage containers after each meal. *(2 people)*
Sunshine	Keep track of the mood and add safe fun and humor to activities. Help those with heavier loads enjoy their responsibility. *(1 person)*
Medic	Track the group's health and awareness of their surroundings. Encourage water drinking and ensure everyone is urinating. Immediately report safety concerns to the group leader. *(1 person)*

Trip Security Discussion

- ☐ Group your trip participants in pairs to assign them to keep track of each other.
  - These pairs should ideally be people they don't know well since couples often go off together
- ☐ Lead a discussion about group norms on the trip. Some example things to consider include:
  - Quiet hours
  - Respecting neighboring groups
  - Any assigned jobs like meal prep or cleaning
  - Communication expectations:
    - If people leave the site: names, destinations, and expected time of return
    - Which leader is responsible for handling emergencies in the middle of the night and how to find their tent.
- ☐ State clear fire safety rules.
- ☐ Make sure trip participants know what they need for each activity and when to be ready.

Packing Up

Discuss the following Packing Up checklist with the participants. Again, start it by asking what participants normally do when it is time to leave a campsite and highlight the items that sound useful. Your participants have this list in their workbooks.

- ☐ Check in all borrowed gear as you pack up.
- ☐ Have the group help clean up and pack shared gear.
- ☐ Clean all trash and micro-trash. Be prepared to take trash home with you if needed.
- ☐ Do a final site inspection. Leave each area in better shape than when you arrived.

When You Get Back

Discuss the following When You Get Back checklist with the participants. At this point, the group is normally a bit overwhelmed from all of the information and so a quick review may suffice to remind them that it is best to do these things when their memories are fresh, rather than realizing they are missing something right before their next trip, even if they really just want a shower.

- ☐ Get feedback from your participants so you can improve or plan for your next trip.
- ☐ Unpack your gear and take care of it so it is ready for the next trip.
- ☐ Replace any items used or used up (first aid kits, standard kitchen items like towels or soap).
- ☐ Ask leaders what worked and what they would change to make the next trip smoother.

Car Camping Checklist

This checklist is in the participant manual.

The advantage of car camping is taking more supplies with you. This list offers suggestions for a car camping trip. Check off what fits your trip or items as you pack them.

Items marked with a * are for winter trips.

Clothes

Head and Upper Body	Lower Body and Feet
☐ Beanie (fleece or wool hat)	☐ Hiking boots
☐ Brimmed hat	☐ Pants (nylon, spandex, breathable fabric)
☐ Fleece or wool jacket	☐ Shorts (nylon, spandex, breathable fabric)
☐ Long-sleeve shirt (wool, thermal)	☐ Snow pants*
☐ Poncho (if your jacket is not waterproof)	☐ Socks (wool, cotton, liner)
☐ Scarf or face mask*	☐ Tennis or running shoes
☐ Snow jacket*	☐ Thermals*
☐ T-shirts	☐ Underwear
☐ Warm gloves*	
☐ Waterproof rain/wind jacket	

Cooking Supplies

Equipment and Cleaning	Dishes and Silverware
☐ Biodegradable dish soap	☐ Dish bins (3)
☐ Measuring cups	☐ Frying pan
☐ Pot handles	☐ Mug or unbreakable cup for each person
☐ Small container of bleach	☐ Pots (with lids)
☐ Stove (with fuel bottle)	☐ Serving spoon
☐ Waterproof matches or lighter	☐ Spatula
☐ Ziploc bags	☐ Spoons, forks, knives for each person
	☐ Tupperware containers for food storage
	☐ Unbreakable bowls and plates for each person

Sleeping, Shelter, and Hygiene

Sleeping and Shelter	Hygiene
☐ Nylon ropes	☐ Brush and comb
☐ Sleeping pad	☐ Bug spray
☐ Smaller tarp	☐ Dromedary bag (washing)
☐ Tent/tarp	☐ Lip balm
☐ Winter*/Summer sleeping bag	☐ Pads or tampons if needed
	☐ Sunscreen
	☐ Toilet paper/paper towels
	☐ Toothbrush and toothpaste

Useful and Optional Items

Useful Items	Optional Items
☐ Bandanas	☐ Books
☐ Duffle bag or storage tubs	☐ Camera
☐ Extra batteries	☐ Field guides
☐ First aid/repair kit	☐ Notebook and drawing supplies
☐ Headlamp/camp lamp	
☐ Medications (as necessary)	
☐ Plastic bags (heavy-duty)	
☐ Pocket knife	
☐ Sunglasses	
☐ Water bottles	

Add Your Own List Items

☐ _____

☐ _____

☐ _____

☐ _____

Optional Gear Activities (1-2 hours)

The following activities are things you can do as part of the workshop if you have more time and the gear is available. Please review the Gear Guide in the appendix for detailed information about gear. Some of the information from that guide is provided here, but there are more details in that section.

Tents (10-30 minutes)

Suggested Activity: Show and tell different tents. Hold a discussion about prior experience with tents. Have the group practice pitching tents of different styles.

Suggested Activity: Have a race to see who can pitch a tent the fastest if you have several that require similar effort.

If you have limited time, but still want to include some gear review, pitch the tents before the workshop begins, and give a tour of them highlighting parts and features as you do.

Terminology

Participants have a word bank activity based on the following tent terminology. Have them fill in the terms as you share them.

Word bank

Freestanding	Non-freestanding	3-season
Semi-freestanding	Pop-up	All season

1. _____ Poles fully support the shape of the tent without stakes.
2. _____ Tent will stand without stakes but will not have its full shape. Often a few stakes make it fully supported. Sometimes manufacturers call these freestanding.
3. _____ Tent requires stakes to have a shape. Likely useless without stakes.
4. _____ May have built in poles or wires to unfold and support it as you open it up. Easy to set up, but less durable. The poles can break, and the tent doesn't withstand wind well.
5. _____ Not suitable for cold or extreme weather. Lighter and fine for most uses. More mesh and better airflow.
6. _____ Built to withstand extreme weather like snow and heavy rain. Less mesh. Better at trapping body heat.

They also have diagrams of tents to label as freestanding, semi-freestanding, or non-freestanding.

Label whether the tents are freestanding, semi-freestanding, or non-freestanding.

- Standing
  - Freestanding: Poles fully support the shape of the tent without stakes.
  - Semi-freestanding: Tent will stand without stakes but will not have its full shape. Often a few stakes make it fully supported. Sometimes manufacturers call these freestanding.
  - Non-freestanding: Tent requires stakes to have a shape. Likely useless without stakes.
  - Pop-up: May have built in poles or wires to unfold and support it as you open it up. Easy to set up, but less durable. The poles can break, and the tent doesn't withstand wind well.
- Seasons
  - 3-season: Not suitable for cold or extreme weather. Lighter and fine for most uses. More mesh and better airflow.
  - All season: Built to withstand extreme weather like snow and heavy rain. Less mesh. Better at trapping body heat.
- Sizing
  - The person rating is based only on the footprint you take up laying down with a small sleeping pad and bag.
    - 1-person: For backpacking only
    - 2-person: For one person (backpacking or camping)
    - 3-person: For two people without a lot of gear
    - 4-person: Best for two people with too much gear (most of them)
    - 5-person: Works for three to four people
    - 6-person: Works for four to five people
  - Sometimes, there is not enough space to allow ideal tent space for personal comfort. Rainflies can be used to shelter gear outside to increase the number of people per tent.

- It is wise to visit the campsite ahead of time, if possible, so you can assess the available space prior to your trip. Participants often struggle to make adjustments due to space constraints if they think they have their tentmates settled before the trip.

Options by price

For more information on tent options by price, including what features are available at each price point, refer to the *Basic Gear Guide* section.

Sleeping Bags (5-10 minutes)

Show and tell different sleeping bags. Make sure to include different sized bags like long, wide, youth, and so on. If outdoors, have participants put their legs in the bags to feel the temperature differences. Introduce them to stuff sacks and compression sacks. Have them pack bags and feel the weight differences once packed.

Terminology

Participants have a fill-in-the-blank activity based on the following sleeping bag terminology. Have them fill in the terms as you share them.

INSULATION TERMS

Synthetic

- The filling of the sleeping bag is synthetic, regardless of the type of outer cloth.
- Too many types to list.

PROS	CONS
• Less expensive than down • Warm when wet • Easy to wash	• Heavy • Take up a lot of space/don't pack down much

Down

- The filling is either goose or duck down.
- Hydrophobic down: Down that has been treated to resist water.
- Duck down: Less expensive and less warm than goose.
- Goose down: More expensive and warmer than duck.

PROS	CONS
• Lightweight • Usually warmer than synthetic • Packs down small	• More expensive than synthetic • Requires special care when cleaning

Fill Power

- How lofty or fluffy the filling is. Higher fill power is loftier, warmer, and lighter.
  - Lowest quality: About 500 fill (500 cubic inches)
  - Highest quality: About 900 fill (900 cubic inches)

Types of Sleeping Bags	
Rectangular Bags 	• Zip up the side. • Most space. • Comfortable. • What most people remember from sleepovers, scouts, and summer camps.
Mummy Bags 	• Tapered to fit your body snugly. • Faster to warm up. • Require less energy to keep warm. • Lighter. • Include a hood to keep your head warm. • Some find them constraining or claustrophobic.
Quilts 	• Like mummy bags but missing the part you lay on and hood. • Some are closed at the bottom while others are open. • Less common than other bag types and more expensive. • People sleep on sleeping pads directly with the quilt wrapped around them. • Lightweight but still warm. • Flexible for temperature because they can be thrown off like a blanket.

Sleeping Bag Sizing

Generally, regular-sized bags will work fine for adults who are not particularly tall or wide, but it depends on the manufacturer. Sizing is most important for mummy bags and quilts. Pay close attention to the measurements for each bag and try them at the store if you are unsure about the best size for you. If you are working with teenagers or younger adults and building a gear supply for trips, you will want to invest in at least one long-wide bag.

Men's vs. women's bags are a label used only for mummy bags. They indicate a slight difference in where the bag is wider. Men's bags are widest around the shoulders while women's bags tend to be wide from the shoulders to the hips. Women's bags are also shorter than men's bags. Some companies make women's bags warmer than equivalent temperature men's bags, though typically not more than 5 degrees.

Warmth Ratings

Modern sleeping bags are rated based on ISO (International Standards Organization) standards. EN (European Norm) is the older rating standard. ISO-rated bags may provide two temperatures: comfort and survival (or lower-limit). These are based on lab testing and might not be accurate for everyone.

Women's bags assume that women need or want a warmer bag for similar weather conditions compared to a men's bag. If a manufacturer makes both men's and women's bags, the women's bags will likely have more insulation for the same temperature rating and will weigh more as a result, unless it is also shorter.

Bags rated at 50° are best reserved for heater trailers and sleepovers. If you are only camping in the summer, a 30°F comfort-rated bag is likely more than warm enough. If you plan to camp in the spring and fall, you may find that you need a warmer bag. In the winter you might want a 15°F, 0°F bag, or even colder if you camp in the mountains. The desert and mountains get much colder at night in the winter. Freezing at night can ruin a fun camping experience for your group.

Warmth Rating Suggestions

SUMMER	SPRING AND FALL	WINTER
30° bag	15°-30° bag	0°-15° bag

Options by Price

For more information on sleep bag options by price, including what features are available at each price, refer to the *Basic Gear Guide* section.

Sleeping Pads (5-15 minutes)

Show and tell different pads. Hold a discussion about prior experience with pads. If the group has brought their own gear, have them set them up. Some folks choose not to use pads. That can work in warm temperatures but remind folks that the ground cools you even when the air is warm.

Instructor Tip: To save time, set up all the pads you have before the event and allow folks to lie on them.

Sleeping Pad Terms

Invite participants to fill out the chart on sleeping pad terms while you teach.

MATERIAL	DESCRIPTION
Closed cell foam	The foam equivalent of an egg carton with the foam protected by an outer coating that may add some insulation.
Self-inflating pads	Has a valve that will allow air to enter the pad automatically when it is open.
Inflatable	Requires you or a pump to get air into it.
INSULATION TERM	**DESCRIPTION**
R-value	The higher this value, the better the insulation. Values below a 2 are only suitable for warm weather. Values from 3-4 appear to be most popular, but values can go up to 7.

Sleeping Pad Sizing

Standard

- 20 inches wide by 70 inches long

Short

- Sold for petite individuals and those who want to minimize carried weight.
- These typically cushion only the torso and not the feet if you are taller.

Tall:

- 78 inches long (for taller individuals)
- For taller individuals

Wide

- 25-30 inches wide
- For wider individuals and those who move around in their sleep.

Double

- 40-50 inches wide
- For two people

Pads come in different thicknesses, ranging from less than an inch to more than five. Thicker pads may not be for backpacking and can take a long time to inflate. They are nice for those of us who find it hard to sleep on the ground.

Options by price

For more information on sleeping pad options by price, including what features are available at each price point, refer to the *Basic Gear Guide* section.

Wrap Up

Review the objectives. Ask about everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a final discussion. Use one or more of the following prompts to get participants to think about how they can apply what they have learned and to serve as a call to action to apply and share what they've learned with others.

- What is one thing they will do differently the next time they plan an overnight trip?
- How will participants use the skills they learned in the workshop?
- How will they pass the skills on to others?
- When are they planning their next trip and where will it be? Include follow-up questions about the plan and what they are going to do based on the workshop for that trip.

Notes

EXAMPLE CAR CAMPING TRIP FORM

Trip Name

Red Rock Canyon National Conservation Area

Trip Location

Group Campground, 3293 Moenkopi Rd, Las Vegas, NV 89161

Trip Purpose and Objectives

Explore Red Rock Canyon and camp

Trip Leader 1 Name	**Cell Phone #**
Jeni Scout	1-702-333-3333
Trip Leader 2 Name	**Cell Phone #**
Tyler Hyke	1-702-555-5555
Trip Emergency Contact	**Cell Phone #**
Friend Smith	1-702-444-5555

Checklist

- ☐ Permits Printed or Saved
- ☐ Weather Links sent to participants
- ☐ Driving Directions sent to participants
- ☐ Map or topo info sent to participants
- ☐ Additional resource info sent to participants
- ☐ Pack items from car camping checklist
- ☐ Prepare and pack food plan
- ☐ _____
- ☐ _____

LIST OF VEHICLES

Tyler's Expedition

Jeni's minivan

RESOURCES

www.redrockcanyonlv.org

WEATHER REPORT (update morning of trip)

Low: 52F High: 73F, sunny

Check morning of trip at

Redrockcanyonlv.com/weather

TRIP ITINERARY

Date 5/9/2025

TIME	ACTIVITY	LOCATION AND NOTES
DAY 1		
9:00am	Departure	Jeni's house (xxxx 4th St, Las Vegas)
9:15-9:45	Driving	Red Rock Canyon Entrance
10:00-11:30	Set up campsite and get oriented	Red Rock campground
11:30-12:00	Lunch	Picnic at the trailhead
12:00-4:00	Hike	Kraft Mountain (3.5 mi)
4:00-6:00	Downtime	Cooks need to prep for dinner at 5pm
6:00-7:00	Dinner	Family style dinner and clean up
7:00-8:00	Group game	Assassin is a fun group game
8:00-10:00pm	Campfire with group day debrief	Tell stories
DAY 2		
8:00-9:00am	Breakfast, put away camp for the day to protect gear from wind and animals	Cooks need to prep at 7:30am and put our lunch out for individuals to pack for the day
9:00-12:00	Climbing	Meet guide
12:00-12:30	Lunch break at climbing area	Sweep area after eating
12:30-3:00	Climbing	
3:00-5:30	Downtime at campsite	Journal, group games, personal time to bathe
5:30-6:30	Dinner	Cooks need to prep at 4:30
6:30-7:30	Group game	Capture the Flag
7:30-9:30	Campfire with group day debrief	Facilitate discussion on the value of wildlands
DAY 3		
8:00-9:00	Breakfast	Cooks prep at 7:30 and put out lunch for individuals to pack for the day
9:00-10:00	Pack up camp	Sweep camp, have loaders organize gear and load into vehicles
10:00-11:00	Drive home	
11:00-11:30	Trip debrief	
12:00	Pick up time and lunch with parents	

SAFETY MANAGEMENT PLAN	
Address & Phone # of Hospitals (along the way and nearest to destination) Summerlin Hospital Medical Center – 702-233-7000 756 Town Center Drive Las Vegas, NV	
Name & Phone # of Search and Rescue Call 911 if it's an emergency for Metro police and search and rescue	
List of Participants with First Aid Training (and their level of training) Jeni has CPR and first aid	
Checklist ☐ Communication Device or Plan (other than the leader's cell phone) ☐ Liability/waiver form for organization ☐ _____ ☐ _____ ☐ _____ ☐ _____	**Emergency Response Steps** 1. STOP and assess 2. Provide care to the injured based on your training 3. Decide if an evacuation is needed and make a plan 4. Communicate with: • Other Participants • Search & Rescue • Medical Assistance • Emergency Contacts • Your Organizations

TRIP BUDGET

Expense	Amount	Notes
Transportation	$50	Gas
Food	$360	Food for three days, $10 per person per day
Campsite	$168	C-Road Runner
Supplies/Gear	$40	First aid kit
Total	$618	
# of Participants	10	
Cost per Participant	$61.80	

TRIP ROSTER

Name (role)	Contact #	Emergency Contact	Emergency Contact #	Health Considerations & Signs of Issues
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

Since most beginners buy their maps at local outdoor stores or at the gift shops attached to parks they visit, they will likely see National Geographic or Green Trail maps. Some locally produced maps are popular with different outdoor groups, so keep an eye out for those. Some examples are Franko Maps and GTR Mapping in Clark County, NV.

Collect the marked maps, or have teams hold them up and allow all the participants to see that most groups have marked up a lot of their maps.

Topographic Map Exercises (20 min)

In their workbooks, participants have topographic map exercises. The exercises should only take about 5 minutes each. Explain that this activity will help them start to understand the lines on the maps. Briefly explain what contour lines are (lines on maps where a single line indicates a specific elevation). Explain that contour lines close together indicate a steep slope, while contour lines farther apart indicate a gentler slope. Point out that circles of lines indicate either a mountain or bowl. They will often have to look at the landscape or the elevation on the index lines to figure out whether it is a mountain or bowl. Some maps include small regular tick marks that indicate the downhill side of the line. Index contours are heavier lines interrupted by elevation numbers. They frequently include elevation changes of 100 feet or 50 meters. Intermediate contours are the lighter lines between the index contours.

As the group finishes **Exercises 1 and 2**, lead them through the answers. We suggest doing them one at a time.

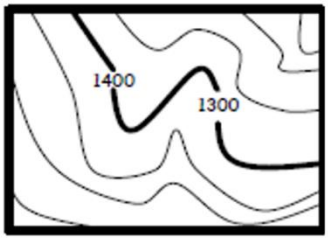
Exercise 1

Contour lines have four important characteristics:

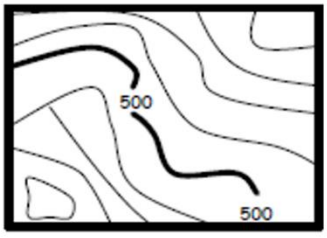
1. All points along the same contour line are at the same elevation.
2. All contour lines eventually connect with themselves.
3. Contour lines never cross each other.
4. Contour lines never split or branch.

Each drawing below (in the participant version) violates a rule of contour lines. Match each rule with the drawing that violates the rule.

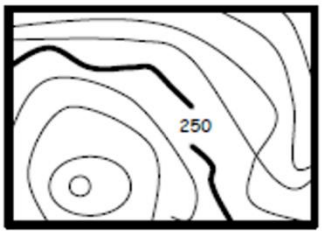
A. 4



B. 1



C. 2



D. 3

TEN PLUS ESSENTIALS PACKING LIST

Navigation: Map, Compass, & GPS System	
	Everyone has Gaia downloaded with the area downloaded for using offline and Friend has a compass and topo map of the area
Sun Protection: Sunglasses, Sunscreen, & Hat	
	Bottle of SPF 30 Hats and sunglasses The campsite has some shade over the tables
Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear	
	Fleece Jacket and emergency rain ponchos
Illumination: Flashlight, Lantern, & Headlamp	
	Headlamp with extra batteries and 4 group lanterns with extra batteries
First Aid Supplies	
	First aid kit for group
Fire: Matches, Lighter, & Firestarter	
	Lighter and matches 3 bundles of local firewood Box of fire starters
Repair Kit and Tools: Duct Tape & Multi-tool	
	Duct Tape, multi-tool, and some repair kits that came with some of the sleeping pads and tents
Nutrition: Food Makes All the Difference	
	See meal plan for details Individuals will bring their favorite snacks and drinks Pairs will be assigned to bring and cook each meal
Hydration: Water & Water Treatment Supplies	
	Camelback 32 oz Two extra bottles (24 oz each) Campsite has running water
Shelter	
	Emergency blanket for hikes, but everyone has tents for shelter
Disposing of Human Waste	
	Campsite has latrines

Sample Food Plan Form

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
1	On own	Turkey wraps (wrap tortillas, turkey, mustard, mayo, coleslaw)	Dutch oven lasagna (box of noodles, bottle of marinara, bag of mozzarella, container of ricotta, bag of spinach, garlic bread)	Apple and bars	Chips and salsa	Baked goodie	Pack in original packaging in cooler and food box
2	Bagels, cream cheese, apples, bananas, oranges	Sandwiches (turkey, ham, sliced cheese, mustard, mayo, spinach, red pepper), Pringles	Calabacitas (squash, corn, black beans, onion, sweet potato, tortillas, green chili, shredded cheese, garlic, oregano)	Oranges and bars	Caprese (tomatoes, mozzarella slices, balsamic vinegar)	Cookies	Make and freeze calabacitas, put remainder in cooler and food box

Options for Additional Meals

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
3	Vanilla yogurt, granola, muffins	Pitas, hummus, tabouli, tomatoes, cucumbers, summer sausage	Rice, sausage, veggies (minute rice, turkey sausage, red pepper, cherry tomatoes, onion, pesto)	Apples and bars	Oreos	Jell-O pudding	Pack as is in cooler and food box
4	Breakfast burritos (eggs, hash browns, salsa, tortillas)	PB & J (bread, almond butter, peanut butter, strawberry jam, grape jam)	Pesto, pasta, zucchini, red pepper, and sun-dried tomatoes	Dried fruit and bars	Goldfish	Oreo pie	Make and freeze eggs and potatoes, box and cooler for the rest

1.6 TRIP SAFETY

ABOUT

Brief Description

Accidents and illness are an everyday reality, and doubly so when on an outdoor adventure. When your participants lead a group, they need to be able to handle medical issues. Having supplies, information, and a plan to handle emergencies can help keep them and their groups safe.

Learning Objectives

After this module, and with some practice, participants will:

1. Understand the use of items in different first aid kits.
2. Be able to pack a first aid kit appropriate for different activities and group sizes.
3. Know how to develop a medical emergency plan that addresses the needs of an entire group.
4. Be informed about opportunities for expanded training like Wilderness First Aid and Wilderness First Responder.

Intended Audience

Ages 18+, or ages 16+ with parent or guardian supervision

Time

2 hours depending on activities included

Materials Needed/Toolkit

- First aid kit list
- Items needed to build first aid kits—see list for items
- Commercial first aid kits for show and tell
- Completed Medical Facilities Table (pg. 5)

If your budget can afford it, allowing groups to take home the kits they built is a nice way to set them up for success. If your budget can't afford that, perhaps it can afford a smaller personal kit for each participant or one as a door prize.

Location Setup

This activity can be done anywhere, but a large space is recommended for tables of supplies.

Group Size

This is a module where the group size depends on the space available. Setting everything up for building first aid kits takes quite a bit of space and can get disorganized quickly with a very large group. We currently recommend not more than 20 participants.

Helpful Instructor Skills

This module covers things that require only lay knowledge and no special certification, but instructors are encouraged to be CPR and Wilderness First Aid certified because of the relevant experience it provides. Instructors should be familiar with the items discussed and how they are used.

Instructors should be very careful not to speak as though they have medical training or encourage participants to do things that require medical training.

WORKSHOP

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and your instructors. Keep it simple, and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, these can be simply stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of your experience level.

- Why is participation vital?
    - You never know what you don't know.
    - Learning from others' outdoor experiences is important for growth and development.
- Some statements that might help encourage the right group culture could include:
    - "It is important that you let one another try things out; even if they are struggling, don't do something for someone. Take turns practicing and giving time to others."
    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples.
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try something that we currently don't have skills.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker (10 min)

1. If your group is large, divide the group to encourage more sharing.
2. Discuss: What is the best outdoor adventure you've had?
   Give a few examples to get people thinking: hiking, picnic, bike ride, vacations, and so on
3. Discuss: What made it a good trip? What things were you grateful to have on your trip? What did you wish you had with you?
4. Regroup: Bring everyone together and ask: What do your experiences have in common?

5. List key points for trip planning: using participant responses, list or summarize key items or components for outdoor trips.
    - Potential list
        - Had a goal: to explore, for physical challenge, to see wildlife, to relax
        - Prepared with food and water
        - Fun schedule
        - Transportation was planned and had good drivers
        - Everyone was prepared physically
        - Had money to complete the trip
        - Prepared for the weather
        - Leaders had a plan in case of an emergency

Instructor tip: Depending on your audience, you might get better responses with the question "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

6. Transition: Use this discussion to arrive at the conclusion that trips are more fun and safer when you are prepared with a first aid kit and basic skills.

Know a variety of items in different first aid kits

Activity: Show and Tell (20 min)

Pass around an assortment of commercially available first aid kits as well as some examples of home-built kits. Make sure to provide examples of basic versions that are not enough and over-prepared kits that can be excessively heavy.

Ask participants to note what they like and don't like about the contents and design of each. (Many first aid kits have items that are never used or that people don't know how to use.) Encourage participants to answer the following questions in their manuals:

- What did you like about the kits?
- What did you dislike about the kits?
- What do you think is essential in a first aid kit?

Pack a first aid kit appropriate for different activities and group sizes

Activity: Building Your Kit (30 min or more for larger groups)

Mentally build your kit (10 min)

- Divide the group into smaller groups of 2-3. Have them write a list of what they would pack in a first aid kit.
- Bring the groups back together to share their kits and ask them to estimate the total cost and weight.

Physically build your kit (20 min)

- Create cards with pictures of possible items with weights and cost information. Have participants "build" a pack with some or all of the items pictured. Examples of cards are included in the appendix.
- At the end, have participants share the kit created, and explain their decisions when building their kit. You may have them discuss what type of trip the kit would be used for, like car camping, backpacking, guiding a group, and so on. They could also discuss what type of budget and how weight would affect their decisions.
- Alternative: Provide each person with a suitable bag for a first aid kit and allow them to add in the appropriate items for a long day trip.

Adaptations for longer trips or larger groups

- Pass around kits and lists.
- List of things to include when far away from help.

Develop a plan in case of a medical emergency that addresses the needs of an entire group

Instruction: Emergency Planning (10 min)

1. **Assign Roles**

Participants must assign roles when an emergency arises during an outdoor trip. Help them fill the table in their manuals to identify and define each roles' responsibilities. Responsibilities is blank in their version.

ROLE	RESPONSIBILITIES
Person(s) focused on the injured	Help with injuries. Stay with injured person. Keep them comfortable.
Person(s) focused on the group's safety	Organize the group to stay out of the way. Designate individuals to help the injured if necessary. Lead a discussion with group about continuing with trip. Communicate with people in other roles.
Person(s) going for help if necessary	Ideally at least 2. Determine how you will get help. Communicate with people in other roles.
HELP PLAN	
Where will they go for help?	Example: Hike back to cell service and call 911. Might just be the person carrying a personal locator beacon.
How will they communicate?	Ideally, the group will consider communication if separated pre-trip. This could involve bringing walkie-talkies or satellite messenger devices or phones.

Have clear plans to communicate before the trip because communication on a trip can be limited, especially if there is an emergency.

Make sure everyone knows how to use the communication equipment and practices using it in advance.

2. **Know the medical facilities in your area: <u>FILL OUT BEFORE THE WORKSHOP</u>**

Having this information allows for quick and efficient access to medical care in the event of an emergency.

Medical facilities can provide various levels of care, but trauma centers specialize in life-threatening injuries.

Help participants fill out the table in their manuals (reprinted here) to record important information about the medical facilities near your planned outdoor location. Record information for multiple medical facilities of each area to ensure they have viable backup options in case of emergencies.

MEDICAL FACILITIES		
Location of Trip:		
Facility Name & Address	Phone Number	Hours of Operation

3. **Personal beacons and when to use them**

Personal Locator Beacons (PLBs) and satellite messengers are the two best options for sending distress signals in remote areas. They work with satellites instead of cell phone towers. Emergency responders can receive distress calls more reliably.

4. **Emergency Supplies**

Participants should have supplies for spending the night unexpectedly in case of emergencies. These supplies are in addition to a first aid kit and the Ten Plus Essentials (see Module 3). The number of each supply item should be relative to the number of people in your group.

Help them use the table in their manuals (reprinted here) to identify and define why the item is necessary in an emergency and how to use it. We have left space for your own suggestions. The column for why an item is necessary and how to use it is left blank in their version so that they can take notes.

Emergency Supplies

ITEM	NECESSARY FOR/HOW TO USE
Extra meal or two	Fuel to stay warm, walk further, and be comfortable if an emergency delays you.
Means of making fire/cooking	While being able to make fire is a Ten Plus Essential, the ability to cook isn't. Heating water can add comfort to a difficult emergency when it's cold.
Layers for cold	A Ten Plus Essential worth repeating: You need to carry layers for being at the lowest temperatures you might experience if you are delayed. For day trips, that means overnight lows. For overnight trips, that could be a weather front expected a day or two after you plant to finish.
Optional: A lightweight tarp (not in the participant table)	May be more comfortable than an emergency bivvy in some situations or could work together with an emergency blanket to help protect an injured person who cannot be moved.

More Opportunities for Safety Training

There are opportunities for expanded training and certifications that provide specialized training for emergencies in outdoor environments. These may include Wilderness First Aid (WFA), Wilderness First Responder (WFR), and Cardiopulmonary Resuscitation (CPR).

Below is a table containing reputable sources* for expanded training, certifications, and more.

Resource	Website	Contact
NOLS	www.nols.edu/en/	info@nols.edu 800-710-6657
Wilderness Medicine Training Center	www.wildernessmedicine.com	carl@WildernessMedicine.com 303-688-5176
Red Cross	www.redcross.org/	support@redcrosstraining.org 1-800-RED-CROSS 1-866-381-0022

*This information is up to date as of April 2023.

Wrap Up

Review the objectives. Ask for everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a discussion. Use one or more of the following prompts to get participants to think about how they can apply what they have learned and to serve as a call to action to apply and share what they've learned with others.

- How many people have looked through the first aid kits they carry? How many will go home and look through them after the workshop?
- How many have seen something today that they want to add to their first aid kits? What is it and why are they adding it?
- What is one thing they will do differently the next time they plan a trip regarding group safety?
- How will participants use the skills they learned in the workshop?
- How will they pass the skills on to others?

Notes

1.7 NAVIGATION

ABOUT

Brief Description

Do you rely on a map app to get where you need to be? Wilderness locations are often poorly mapped. Directions can be unavailable or incorrect with standard map apps, even when trying to locate a trailhead. Relying on your phone and a hiking app can work in many situations, but problems can happen. Relying on your phone requires understanding the app you are using and having a reliable backup system you know how to use. It also requires having a working phone, and phones can die or break.

This workshop will not only help you use your favorite app better but will also teach you the basic skills of using a map and compass.

Learning Objectives

After this module, and with some practice, participants will be able to:

1. Describe the pros and cons of different navigation tools.
2. Find reliable information regarding the locations of trailheads, trails, campsites, and other destinations.
3. Discuss some available hiking apps and situations each is suited for.
4. Demonstrate basic skills with a compass and a map.

Intended Audience

Ages 18+, or ages 16+ with parent or guardian supervision

Time

2-3 hours depending on group size. More time can allow for breaks and more activities. This workshop can be turned into nearly a full day with longer discussions and all the mentioned activities.

Materials Needed/Toolkit

- Devices with a variety of hiking apps
    - Encourage participants to come with their favorite ones loaded on their phones before the workshop.
- GPS unit – not essential, but an example is useful.
- Examples of different types of maps for the area – enough so the entire group can see several examples in about 5 minutes.
- Topographic map of an area – enough copies for each team of 2-4 participants.
- Paperweights for maps if outdoors – we suggest at least six for United States Geological Survey (USGS) maps. Corn hole bags work well and can be inexpensive.
- Inflatable globes for each team of 2-4 participants.
- Compasses for every 1-2 participants.

- Small sticky notes – approximately 10/map.
- NOTE: Participants should come with a fully charged phone with their favorite hiking app installed (and possibly back up batteries).

Location Setup

This activity can be done anywhere, but a large space with tables is recommended for displaying maps.

Group Size

Group size depends on equipment availability. Ideally, no more than two people should share a compass. No more than 3-4 people should share a topographic map, depending on table space. Participants need to be able to stand around the maps and easily see marks, especially the legends that are often at the bottom and sides of the maps.

Helpful Instructor Skills

Anyone comfortable with the skills presented in the module should be able to successfully lead the module. The skills include:

- Operating a compass.
- Reading a topographic map.
- Using a compass in combination with a map to navigate.
- Navigating well-established trails.
- Navigating difficult trails like over slick rock and burned areas where trails may be obscured.

An instructor could potentially train themselves using the resources at the end of this module.

WORKSHOP

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin by introducing yourself and your instructors. Keep it simple, and if the number of participants allows, have them introduce themselves to the group or to others around them.

Consider the following ideas for inclusion in an opening discussion with the participants. Alternatively, these can be simply stated to encourage a safe environment. If you choose to just state them, preface the list with an explanation such as: We want everyone to feel comfortable at this workshop regardless of your experience level.

- Why is participation vital?
    - You never know what you don't know.
    - Learning from others' outdoor experiences is important for growth and development.
- Some statements that might help encourage the right group culture could include:
    - "It is important that you let one another try things out; even if they are struggling, don't do something for someone. Take turns practicing and giving time to others."

    - "We love curiosity. Ask questions even if it seems like everyone else knows the answer. Often, people are wondering the same thing and if not, it is always a good review."
- Lastly, end with some ground rules and your goals for the workshop to build a space where everyone can be brave enough to participate. Below are some examples.
    - I am not there to judge you; I am here to facilitate a learning community.
    - What is said here stays here. What is learned here leaves here.
    - We learn when we take risks and try something that we currently don't have skills.
    - I will not judge you as you make mistakes; I expect you to do the same with me.
    - Explore, ask questions, give me respectful feedback, and I will do the same.
    - I hope to learn from you as you learn from me.

Icebreaker Discussion: Have you ever been lost? (15 min)

1. Divide participants into groups of 2-3. Have each person in the group describe a time when they were lost, what happened, and how they felt. Give a few examples to get people thinking. This can be a hike, driving to someone's house, or a road trip.
    a. If you are working with a small group, you do not have to break into teams and can have the discussion together.
    b. Breaking into smaller teams can help with time management and building connections
2. Once small groups have had time to discuss their experiences, bring the whole group back together and ask for someone to share the most interesting, terrifying, surprising, or inconvenient story. Get the group to identify one key thing that contributed to the person or group being lost. Guide the answers and discussion so that you get participants to list the key components of trip planning and navigation. Feel free to change it to a more positive list, but participants are often entertained by creating a list of ways for things to go wrong. Be careful that the discussion doesn't get too personal.

Here is a list of things to look out for in the discussion as they tie into the workshop well:

How to get lost:

- Don't have an address or GPS coordinates.
- Don't map the route in advance so you have a sense of the overall route.
- Don't print out the route if it isn't on a map already.
- Don't use multiple sources of information about your destination and any trails you are using (map, phone, GPS).
- Don't have someone with you who has been there before.
- Don't be able to call for help.
- Don't use the buddy system and don't communicate with the group if breaks are needed rather than falling behind.

Review different tools for navigation

Before the workshop, make sure you are familiar with the pros and cons of different navigation apps. AllTrails is considered an industry leader, but it and Hiking Project are crowdsourced. They can cause problems by listing trails that are unofficial and unmaintained (aka social trails). Other apps have limited numbers of trails. Some cost more to access all the features and to use those features away from cell reception.

Ideally, have devices with a couple of examples to show participants. Have participants show the apps and devices they use. Do not advocate for a single brand, app, or device in the discussion. This is intended to be informational to allow participants to decide what makes the most sense for their purposes.

App Discussion (15-20 min)

Get participants to list the apps they have used. If you have access to a whiteboard or large paper pad, write them down so you can build a list for discussion. We suggest you aim for about six apps, but participant workbooks have room for notes on ten.

Possible apps for discussion (as of July 2024): Google Maps, AllTrails, Gaia GPS, Hiking Project, OnX, Strava, Oh, Ranger! Park Finder, Avensa, Topo GPS, Outdooractive, Guthook, Cairn

Once you have the list, ask individuals to explain to the group why they use or don't use one of the apps listed. You may not have time for everyone to speak, so try to get a sense of the group's opinion.

Instructor Tip: Try to get names of apps and opinions about them from participants who have not spoken as much. This is an easy question to answer and makes sure the entire group feels included and is participating.

Summarize the feedback of the group. The participants have room after their lists of apps to write pros and cons for using hiking apps. Here are some pros and cons that may come up:

PROS	CONS
• Use a device you already own and carry • Many are easy to use with minimal training • Used by people you know • Free or low cost • Updated regularly • Lots of trails • Trail reviews • Trail condition updates • Ability to let friends track you as you hike • Can have different data overlays like snow cover, fire, land ownership • Some allow you to use National Geographic, USGS, or proprietary maps • Additional information about trail location may be available in an app	• Drain phone battery • Only work when the phone is charged • Important features can cost more money • Some can be difficult to use • Issues with some trails not being real • Limited trails on maps • Poor tracking • Some apps provide a line indicating the trail and your position and do not include surrounding landscape to help with orientation • May require you to download maps prior to losing cell service

The point of this discussion is to get participants thinking about which apps they use and why, to learn about new apps, and to make sure they know the shortcomings of commonly used apps. Encourage participants to ask each other about apps during breaks or after the workshop.

This is also the time to point out that all apps have some flaws, with an important one being that many hikes do not exist. Hikes in apps might be dry creeks or social trails that local land agencies do not manage

or know about. Tell participants to confirm the existence and location of a trail with several different sources before hiking, including the land agency where the trail is located.

GPS Unit Discussion (Optional – 10 min)

Next, introduce GPS units. While these used to be popular among hikers, most hikers no longer use these unless they are tied to some sort of satellite communication service or built into a watch.

Basic Info about GPS (use as is helpful):

GPS is a navigation system using satellites developed by the Department of Defense for military use in the 70s. It is now managed by the National Executive Committee for Space-Based Positioning, Navigation and Timing (PNT) since most users are no longer military. The system consists of 31 satellites (as of May 2024) with a minimum of 24 required. These work with five ground stations that monitor the satellites. The U.S. government used to limit the accuracy of civilian GPS units but stopped in 2007. Typical consumer GPS units are accurate to 15-16 feet, but they can be made more accurate with Wi-Fi assistive service. That service uses the known location of Wi-Fi access points to help determine location. The satellites are positioned to ideally have at least six within view at any time, but heavily forested areas, buildings, canyons, and mountains can block some or all of them.

Ask participants if they know what GPS stands for (Global Positioning System).

Ask participants to list any GPS devices they know of (might be a short list)

Possible answers:

Traditional GPS units	GPS units with communication capabilities (most common types)	GPS watches (most common brands)
● Bushnell BackTrack Mini ● Garmin eTrex ● Garmin GPSMap	● Beacons ● Spot ● Zoleo ● Backcountry Access ● ACR bivy stick ● InReach Mini and Montana ● Somewhere Global Hotspot	● Garmin ● Suunto ● COROS ● Apple ● Polar Fitbit does NOT have GPS even though people use it for hiking

Lead a discussion about how people use these tools, which ones they like, which ones they dislike, and why. If appropriate, pass around examples you have and invite participants to share what they brought. We suggest keeping this section limited because you may not have many examples, and participants might not want to pass around expensive watches.

GPS Units	GPS communication devices	GPS watches
• People may be used to using one • Spares phone batteries • Expensive • One more thing to carry • Learning curve for inexperienced users	• Used for emergencies and staying in touch with people at home on long hikes • Don't need if hiking in areas with cell reception • Expensive • Require paid subscription	• People like having watches and GPS watches can have multiple functions • Expensive • Shorter battery life than regular watches • Require special charging cables

If you have GPS units available, make sure you are comfortable using them. Skills you can show:

Basic route tracking.
Changing the datum used by the unit to match a topographic map being used.
Reading latitude and longitude and Universal Transverse Mercator (UTM).

If you do show them how to read latitude and longitude or UTM at this point, follow this section with the Orientation to Maps section. We estimate this taking 15-20 minutes depending on group size.

PROS of a GPS unit: GPS units have better durability and separate batteries from phones. Until recently, they were more accurate than phones.

CONS of a GPS unit: Some of the downsides of a GPS unit are:

- An additional item to carry.
- Temperature limitations like phones (though some may have a broader range).
- Do not work when the view of the sky is blocked.
    - Also true for phone GPS except when also using Wi-Fi assistive services in cities (there is no Wi-Fi in most wilderness areas).
- Because the satellites move, a spot with good reception one day may have bad reception the next.
    - Also true for phone GPS.

GPS Activity (Optional) (30-90 minutes)

This activity is dependent on having enough units for every 2-3 participants to use one as well as sufficient time.

NOTE: Because GPS units vary, we have left out instructions on how to use a specific one. Instructors should be comfortable using the type they have. There are many great resources online, including videos, that walk you through how to use different brands and models of GPS units. Be aware, models that have been around for a while or have different versions may not function the same across all model versions.

Have teams of 2-3 participants use a GPS unit to hike down different trails (or spaced out along the same trail) for a set amount of time greater than 20 minutes. They should hike away from the group for half the allowed time, then hike back. They can practice making way points by marking the start and end of their hikes. Have them estimate their hiking speed using the GPS, then mark how far they got on a map using the GPS to help them determine this information.

Instructor Tip: Remind participants that this isn't a race. The contest is to see who is the most accurate, but they are required to walk at a regular pace; they cannot use the trailhead as a final destination.

If you have sufficient time and tools, you could have them stay at the furthest point they hiked to. The instructor can come out to each group with their own accurate GPS unit to see if their readings match what they see around them. This works best when there are clear landmarks that appear on your map and you have a little more time for participants to hike out.

Compass and Map Experience Discussion (15-20 min)

Open this discussion by asking participants about paper maps they have used. Participants have a prompt to write about their experience or inexperience using a map and compass in their workbooks. Depending on their ages, they may have used paper maps to navigate while driving. They might have received a map when entering a national or state park, purchased one, or used one they found in a trail guide. Ask them questions about maps to get them primed for more information.

1. Did they run into any problems using those maps?
2. Were they easy to read?
3. Did they include enough information?
4. Did they use symbols you didn't know?
5. Could you fold them back up?
6. Could you use the map to find their way?

Basic Map Examination (10 min)

Keep the discussion brief and hand out an assortment of maps—especially free ones. Make sure to include any available for the workshop location. If maps of the workshop location are not available, have maps of other locations. For example, a National Geographic map covering Clark County well might not be available.

NOTE: USGS topographic (or topo) maps are always available for workshop sites, but often divide up a larger property into several separate maps. You will need to decide if you want to use only the one that includes the exact location of the workshop or all of them for the site. You might need to include more maps if the location is on an edge. While USGS maps may be preferred by people with advanced navigation skills, they are not often used by beginners. You might choose not to use them at all if you have other good topo map options which include maps by National Geographic, Delorme Atlas, GTR Mapping, Tom Harrison Maps, Benchmark Recreation Atlases, or Green Trails, as well as public land agency produced maps.

Allow participants to examine the maps in smaller groups either by standing around a large table or by passing the maps around. Repeat the questions about maps in the previous section. Have participants put small sticky notes next to any information they don't understand. If time is limited, you can restrict this to the topographic map you plan to use as the focus of this section. This will give you a baseline of their map knowledge and help them feel like they are not alone as many people will mark different things. This is a good opportunity to joke about needing more sticky notes or the size of the map, but keep it positive and relatable instead of making participants feel dumb or ignorant. These jokes may come from your participants. Very few people know how to read a map at all based on our experience running these workshops.

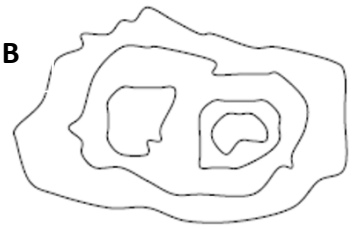
Exercise 2 Part 1 answers

Match each image below with the appropriate description.

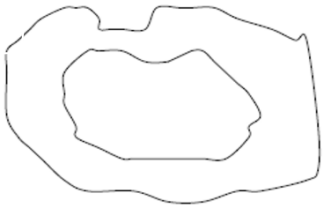
1. **C** Gentle slope on all sides.
2. **D** Round hill with two peaks.
3. **A** Steep south side.
4. **B** Two peaks with east side higher

A

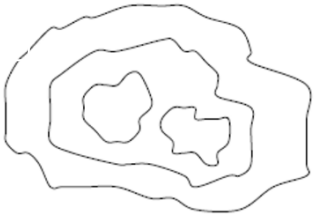
B



C



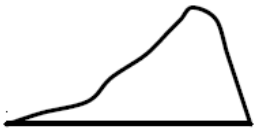
D

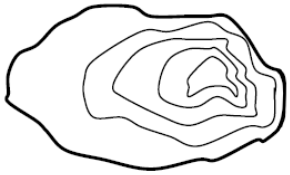


Allow the participants time to celebrate their victories and gloat a little if they got the answers right. Move onto **Exercise 2**. Again, review the answers with the group:

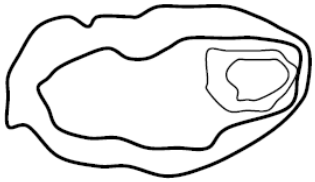
Exercise 2 Part 2 answers: Match each side view image with the correct contour lines.

1. C

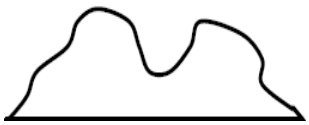


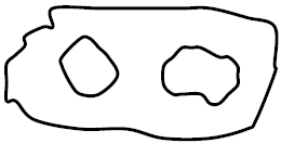


2. D

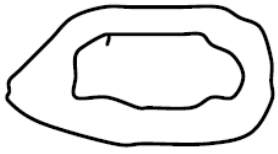


3. B





4. A



Depending on the size of the group, asking them to collectively shout out their answers could increase the energy of the group or be loud and overwhelming. Use your best judgment about how to go over the answers.

Have participants return to the maps on the tables. Ask them to locate a landmark you can easily describe. Have a team member point at it and check to make sure they found it. You can also ask them to identify the steepest slope, the highest peak, or a mountain range depending on the maps and your location.

Next, point to a landmark in the distance and have the participants point to it on the maps.

If the group is having a hard time understanding contour lines, consider building a small mound with sand or dirt and then drawing lines onto the mount with a stick or finger.

Orientation to Maps (20 min)

Because some people will use a map with a phone app or GPS unit that provides latitude and longitude, this activity will review those terms and have the participants apply them.

Briefly go over latitude and longitude while holding a globe to point at things as you mention them. Participant workbooks have the image to the right in their workbooks with latitude and longitude marked.

Latitude: degrees measured from the equator (0°) to the poles (90°). Latitudes north of the equator may be indicated as north or with a positive number. Latitudes south of the equator may be indicated as south or with a negative number.

Longitude: degrees measured east and west of the Prime Meridian in Greenwich, England. The Prime Meridian is 0°, with longitude going up to 180° east and west where they meet on the other side of the Earth.

Degrees are further divided into minutes (1/60 of a degree) and seconds (1/60 of a minute or 1/3600 of a degree). For example, the Hoover Dam is located at 36° 0’ 56” N, 114° 44’ 16” W. The latitude and longitude can also be expressed as decimals: 36.016045, -114.737839.

Degrees are equal to 60 nautical miles. Minutes equal one nautical mile.

NOTE: We do not recommend getting into UTM unless you are running a workshop for enlisted military or veterans—they will have already used UTM during their service.

Optional: Converting Degrees to Decimals

Apps and maps can prefer different forms of coordinates, so it can be handy to know how to convert between units. However, this can be overwhelming for less experienced individual in your workshop.

- One degree equals 60 minutes and equals 3600 seconds: 1° = 60’ = 3600”
- One minute equals 1/60 degrees: 1’ = (1/60)° = 0.01666667°
- One second is equal to 1/3600 degrees: 1” = (1/3600)° = 2.77778e-4° = 0.000277778°
- The decimal form of degrees = degrees + minutes/60 + seconds/3600
- North and East values are positive. South and West are negative.

Pick an example from your map and convert the numbers to the opposite version.

Have participants give the degrees of latitude above and below their hometown or their favorite place to visit. (Minutes and seconds will not show up on most globes.)

Compass Discussion and Activity (30 minutes)

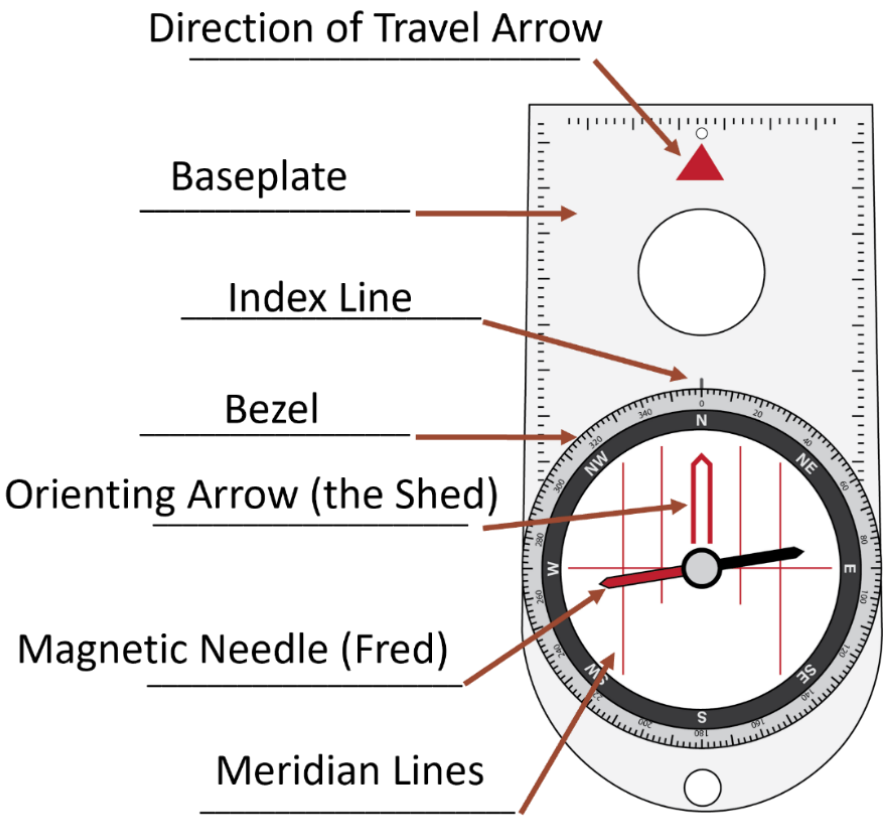
Hold up the large compass in your kit (if you have one) and use it to point out the parts of a compass. Participants have blank compass diagrams in their manuals. Help them write the correct terms.

Label the Compass

Label the parts of a compass with the words in the word bank.

Word Bank

Direction of Travel Arrow	Baseplate
Magnetic Needle or “Red Fred”	Bezel
Meridian Lines	Index Line
Orienting Arrow or “The Shed”	



The main point of working with a compass at the basic level is to help participants understand which end of the needle points north. If your compass includes degrees, you can hand them out at the same time as the globes and point out the numbers. The degrees on compasses go from 0-360 and resemble a cross section of the globe cut from the north pole to the south pole.

Demonstrate the correct way to hold a compass—perfectly flat, held in both hands away from the body and any electronics including watches, and with legs spread enough to stay very stable. Have individuals point to north, south, east, and west.

Return to the maps and have them rotate the maps so the north end is north. Have them check to see they can now identify landmarks more easily.

Conclusion (5-10 min)

There is much more to learn about using a map and compass together. This workshop only covered the bare essentials. Encourage participants to take more advanced workshops and learn on their own. Lead the group in a discussion about which navigation devices they plan to use for their own groups. Encourage them to carry a map and compass, since few will prefer that to a hiking app.

Wrap Up

Review the objectives. Ask for everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

End the workshop with a discussion. Use one or more of the following prompts to get participants to think about how they can apply what they've learned and to serve as a call to action to apply and share what they've learned with others.

- How many people own a compass? How many plan to get one now? How many people carried one without really knowing how to use it?
- How many people carried topo maps without really being able to use them?
- What is one thing they will do differently the next time they go on a trip with regards to navigation?
- How will participants use the skills they learned in the workshop?
- How will they pass the skills on to others?

Notes

TIER 2 WORKSHOPS

These workshops are designed to take 1-3 days and build on the information covered in the Tier 1 workshops. Be aware that many inexperienced individuals will not have the background knowledge or experience to participate in these workshops without some modification by instructors. If you choose to run these with a less experienced group, we encourage you to pull information from Tier 1 workshops to supplement the information provided in these Tier 2 workshops.

- 2.1 Intermediate Camping
- 2.2 Backpacking

2.1 INTERMEDIATE CAMPING

ABOUT

Brief Description

This module teaches skills for camping overnight at established campgrounds or near existing infrastructure where campers take their gear to a site in a vehicle.

Spending a night in the great outdoors can be an incredible bonding experience for groups and families, but there is a lot more involved compared to a day hike or barbeque. There is more gear, coordination, and rules and regulations.

As an instructor, you will help participants learn different types of gear and what they should bring when planning a trip. While gear comes in a range of prices, very few people need the most expensive stuff. Sometimes the cheapest gear is great. Help your participants learn what will work for them and their group. Teach them how to care for their gear so even their inexpensive gear will last for years.

Review planning essentials such as permits, reservations, campfires, and more so that they can be confident they have planned for a great trip regardless of what the unexpected brings.

This workshop is ideally a short one- to two-night camping trip with a pre-trip meeting that will give participants the chance to learn by doing. Instructors will act as guides and coaches.

Learning Objectives

After this module, and with some practice, participants will be able to:

Pre-Trip Planning Meeting

6. Complete a trip plan for camping using the Trip Form.
7. Pack appropriate items for activities, locations, and weather conditions.
8. Plan for the health and safety of their group members including food, water, overall wellbeing, and special needs.
9. Consider different backgrounds and ability levels while planning.
10. Apply best practices for camping throughout the trip.
11. Pack and use the Ten Plus Essentials.
12. Assess and mitigate risks for their trip conditions.

Camping Trip

1. Set up and maintain a campsite in an established campground.
2. Apply best practices for camping at the campsite and throughout the trip.
3. Set up a tent and use Guylines.
4. Set up a group camp kitchen including sanitation and waste management.
5. Understand and apply Trip Best Practices.

Intended Audience

Ages 18+

Time

8-48 hours depending on activities included.

This workshop fits best within a camping trip. This gives time to cover the basics of camping and gear and allows for additional fun activities or training topics. This can also be run as a long day event where everyone practices loading up their cars and then going to a location where they practice camping skills. Participants can try out all their gear by pitching their tents, setting up their sleep systems to take a nap or read quietly, and cooking a meal before returning home.

Materials Needed/Toolkit

- A Trip Form for each participant
- Ten Plus Essentials example gear
- Trip Best Practices
- Car Camping Packing List
- General camping gear – see *Basic Gear Guide*

Location Setup

The planning meeting can be done anywhere with sufficient space. The camping should be done at an established campground with good shade unless it is cold.

Group Size

The ideal group size should be 12 or less to let all participants practice each skill. If needed, this could accommodate up to 30 people where participants choose or are assigned the skill they practice during the campsite set-up activities if you have a number of assistant instructors who are knowledgeable.

Helpful Instructor Skills

Instructors should be knowledgeable about and have experience with camping and leading overnight outdoor trips.

Any individual with camping experience who is comfortable with the skills in this workshop should be able to successfully lead this session. These skills include:

- the planning and logistics of an overnight camping trip into public lands
- knowledge of necessary gear and how to buy or rent it
- experience with permits for group campsites and setting up a campsite for a larger group
- designing tasks and delegating them to groups of participants on trips
- handling trash and human waste in the front and back country
- cooking meals on camping stoves
- lighting fires safely and extinguishing them
- planning group activities and how to handle when a group splits up for activities
- cleaning up and removing signs of a camping trip from a site
- getting folks safely home

We also recommend any lead instructor be certified in CPR at a minimum and ideally have their Wilderness First Aid (WFA) certification given the length of this activity.

About the Pre-Trip Planning Meeting

A pre-trip meeting ensures that everyone is prepared for the camping trip. It gives you a chance to help educate participants about how to pack and to get a sense of their experience before the trip.

When camping with a vehicle to transport gear, you are only limited by the capacity of the vehicle and your access to resupply areas. However, it is still important to plan to reduce your impact on the area you are visiting and ensure the safety of your group.

Use the pre-trip planning meeting to complete the trip form with your participants. This will help you to know ahead of time any medical needs of your participants and what equipment your group has or doesn't have collectively and demonstrates to them how to collect that information if it is not standard practice for their trips. It's not necessary to bring all gear to the meeting or even to meet in person, but everyone should have an inventory of what they do have so you can supplement it if necessary.

This is also a great time to do a gear shakedown if you have the space and time. Invite all participants to bring their camping gear, which may include group camping gear. Not only can it be part of the show and tell, but participants can discuss the pros and cons of their items and receive feedback from the presenters and participants.

Specific topics to consider discussing are the warmth of pads and sleeping bags and the size of tents given the weather during the trip. Sometimes participants end up cold in cooler months or too warm in hotter months due to selecting gear best for a different temperature. A discussion of how to inexpensively modify warmer weather gear to handle cooler temperatures using closed cell foam pads and sleeping bag liners could help many trip leaders consider how to offer trips in the spring and fall.

If you can't do a pre-trip meeting, the gear shakedown can be included in the campout.

Workshop

Pre-Trip Planning Meeting

It could happen as an actual pre-trip meeting or as something you do as part of a camping trip. It makes sense to hold the pre-trip planning meeting at the start of the trip. However, be aware that logistical challenges may arise if key staff, who need to lead an activity, are not available after the start of the trip. Aside from medical and liability forms, the rest of this could be scheduled at any point during the trip. Planning the trip the participants are on can be an easy way to introduce them to planning trips that are different from what they normally do.

Pre-Trip Handouts

Make sure to send the following handouts before meeting with the group. These could be uploaded to a trip signup page or emailed to participants as part of their registration confirmation.

1. Trip Form
2. Car Camping Packing List
3. Ten Plus Essentials
4. Trip Best Practices

Introduction (15 min)

Establishing a Learning Environment (5 minutes)

Begin with a brief introduction of the instructors and the overall objectives of the course. This may be part of the pre-trip meeting or done at the start of the camping trip.

Group Introductions (10-15 min)

As individuals arrive, please have them prepare their gear for the Gear Review activity (details later in this module) and then gather in a circle. Introduce yourself briefly and then have each participant introduce themselves. If there is a risk of people taking a long time with their introductions, feel free to use a timer, but leaders should also time themselves. Here is some information that could be included in the introductions:

- Name
- Pronouns
- Experience level with camping: never been, beginner, intermediate, expert
    - It's okay to admit you aren't an expert, but leaders should have organized several camping trips prior to leading this workshop.
- What about the trip excites or worries you
- Your favorite snack, dessert, or breakfast food
- Any other thing that will catch participants by surprise and help them remember names.
    - Examples:
        - What time they went to bed last night
        - Favorite thing they did as a kid when stuck at home sick
        - Favorite ice cream flavor, breakfast cereal, or beverage
        - Name of a first pet (or friend's pet or fictional pet if they have never had one)
        - Do they prefer…dogs or cats, ice cubes or pebble ice, or other opposing categories

Icebreaker (10 min)

4. If your group is large, divide the group to encourage more sharing.
5. Discuss: What is the best outdoor adventure you've had?
   Give a few examples to get people thinking: hiking, picnic, bike ride, vacations, and so on
6. Discuss: What made it a good trip? What things were you grateful to have on your trip? What did you wish you had with you? Participants can answer this question in their manuals.
7. Regroup: Have each group repeat key items that made the trip great.
8. List key points for trip planning: using participant responses, list or summarize key items or components for outdoor trips.
    - Potential list
        - Had a goal: to explore, for physical challenge, to see wildlife, to relax
        - Prepared with food and water

- Fun schedule
- Transportation was planned and had good drivers
- Everyone was prepared physically
- Had money to complete the trip
- Prepared for the weather
- Leaders had a plan in case of an emergency

Instructor tip: Depending on your audience, you might get better responses with the question: "What was your worst outdoor experience?" Pay attention to your audience and avoid getting too negative or too fixed on bad experiences.

9. Transition: Use this discussion to arrive at the conclusion that trips are more fun and safer when you are prepared.
    a. Pass out the Ten Plus Essentials handout or have them look at them in their manuals in the Frequently Used Information section.
    b. Ask: "What can be learned from those experiences?" Make connections with the Ten Plus Essentials. This helps participants see value in them.
        i. Example: "So you were freezing on a mountain? Seems like this was an insulation issue." Or "You got caught out in the dark and were prepared with light."
    c. "By learning these skills of using camping stoves, lighting campfires, and setting up a tent, you are preparing for key needs: food, shelter, and warmth.

During the Meeting

Plan a camping trip with your participants. Encourage participants to reference the **ORLP Tier 1 Modules** as they plan.

1. Complete all medical and liability forms that your organization requires. You want to make sure you have the information you need in case someone loses consciousness so that you can provide it to medical personnel. You should consider ways to protect participant privacy which can include sealing medical forms in envelopes that are only opened in an emergency or the index card described below.
    a. If you do not have any of these, consider creating a basic liability form to protect you as a trip leader.
    b. An alternative to a medical form can be an index card in a plastic bag pinned to each participant's day packs with the following information:
        i. Full name
        ii. Age
        iii. Weight
        iv. List of medications taken regularly
        v. Known medical conditions including allergies
        vi. Blood type
2. Provide everyone with a Trip Planning Form and together plan for a camping trip.
3. Establish goals and objectives. What would everyone like to accomplish? What are some skills or activities they would like to learn? Some examples include:
    a. Learn how to prepare a campsite
    b. Apply Trip Best Practices at the campsite

    c. Learn how to store food correctly
    d. Go on a small hike
    e. Learn how to use my new equipment
4. Choose a location based on these objectives and goals. As an instructor, you should have a couple of options ready that everyone can research:
    a. What activities are nearby this location?
    b. Is there water?
    c. How close is the nearest gas station?
    d. Does it have a bathroom?
    e. How much does it cost?
    f. How is access to the location?
5. Plan for meals
    a. Decide if you are going to do individual meals, some meals, or every meal as a group?
    b. Create a list for what to bring for the group
6. Gear: Review the gear and Ten Plus Essentials. Find out what everyone has and doesn't have. Make a list of what you and/or participants need to do to supplement it. Show this process to the group so they know what to do when they lead their own trip.
7. Medical and safety needs: Discuss how to meet the medical needs of your participant campers. Since medical information can be private, try to discuss general terms and theoretical scenarios. For example, everyone can benefit from knowing how to handle an allergy emergency.
8. Encourage participants to label their equipment if possible.
9. If you are loaning gear out to participants, this is a good opportunity to have them pick it up.
10. Set up and review travel trip logistics. If you need help with trip scenarios, there are some extra ones at the end of this section that include less typcial situations.

Camping Trip

Camp Activities

These activities are required to satisfy the learning objectives of this workshop. They are listed in the recommended order, but things can be adapted to fit your needs.

Set up your campsite (30-60 min)

Set up your tents, kitchen, and food storage.

1. Keep your Trip Best Practices in mind.
2. Camp on flat land for proper draining and durable surfaces. Avoid anthills, wildlife paths, and rocks.
    a. Participants have a chart in their manual to write durable and non-durable surfaces
        i. Durable: rock, sand, gravel, snow, trail, grass
        ii. Non-durable: moss, wildflowers, wetlands, steep slopes, cryptobiotic soil
3. Pick an area with plenty of shade but look out for widowmakers, or loose and broken branches or debris in trees that could fall and harm those below.
4. Be at least 100-200 yards (if possible and depending on local requirements) from water and your designated bathroom.
5. Set up your kitchen, cooking, and food storage area around 100-200 yards from your sleeping area.
6. Choose a designated trash location.

Tent activity (40-60 min)

You may choose to focus on putting up and taking down the tents a couple of times so everyone experiences different types of tents. Participants can try putting it up with one person vs two and see the difference in the difficulty of pitching a tent without help.

Talk about different factors that may affect comfort and tent stability, like wind direction, sun direction, slant of the land, bumps, and water drainage. As part of event preparations, select several different potential sites for tents that suffer from problems related to these factors and ask participants to evaluate them as potential sites for their tents. Talk about how participants should know to get in and out of their tents at night and that they should set up locations for quick access to flashlights, more clothing, and other nighttime needs. Remind participants that food should not be in the tent.

1. Tents should be oriented with a narrow end facing the wind. Ideally don't have the door face the wind to reduce grit and sand blowing into the tent.
2. If participants want to wake up early, choose a site that the rising sun will hit quickly.
3. Clear the ground of rocks, sticks, and other debris that could damage the tent material and be uncomfortable if stepped on or laid on.
4. Check for visible runoff patterns on the ground and avoid setting tents on them.
5. Ground that looks level is often not level or many have bumps that are hard to see. It is smart to lay down inside a tent to determine if there is any issue prior to finishing camp setup. Freestanding tents can be moved without being staked, but you might have to un-stake a non-freestanding tent to move it to correct for a slope felt but not seen.
6. If the group is not familiar with different types of tents, consider reviewing them (see the ***Tent Review Information*** following this list).
7. Discuss that you MUST stake out your tent or it can blow away, even with gear and a person inside. Introduce different types of tent stakes:
    a. Stakes that come with tents often bend easily
    b. Shepherd hooks – may bend depending on material, can spin
    c. Nail style – often sold as replacements and are heavy, but some new manufacturers are making them ultralightweight. These can spin and normally don't have a notch to catch cords, so they must go in at a more extreme angle to hold the tent down in strong wind.
    d. Y-shape
    e. V-shape
    f. Notches to catch cords
    g. How the location of a hole on a stake can make it weaker
8. Teach participants various ways to store items in tents. Participants can find a system that works best for them.
9. Make sure participants practice installing Guylines. Discuss how they help to stabilize tents in rain or wind. You can also discuss different tent shapes and how they do in rain and wind. Tall and boxy tents do not handle adverse weather as well as lower streamlined structures.

Tent Review Information (optional)

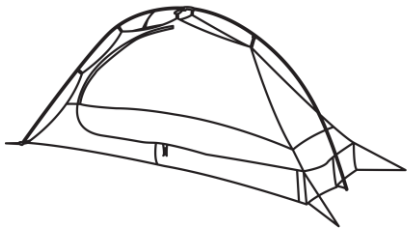
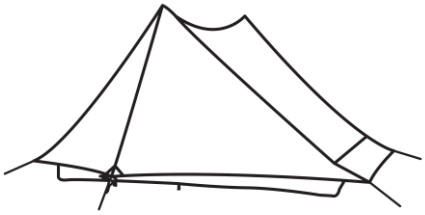
Teach the following information about tents.

1. Choosing where to set up your tent
    a. Developed campgrounds

i. Consider the slope of the ground. Your head position should be uphill.
ii. Don't put your tent too close to a fire or smoke.
iii. Consider wind direction.

b. Dispersed camping
   i. Camp in existing campsites and/or surfaces that resist trampling, like rock, sand, and gravel.
   ii. Reduce signs of camping when you leave.

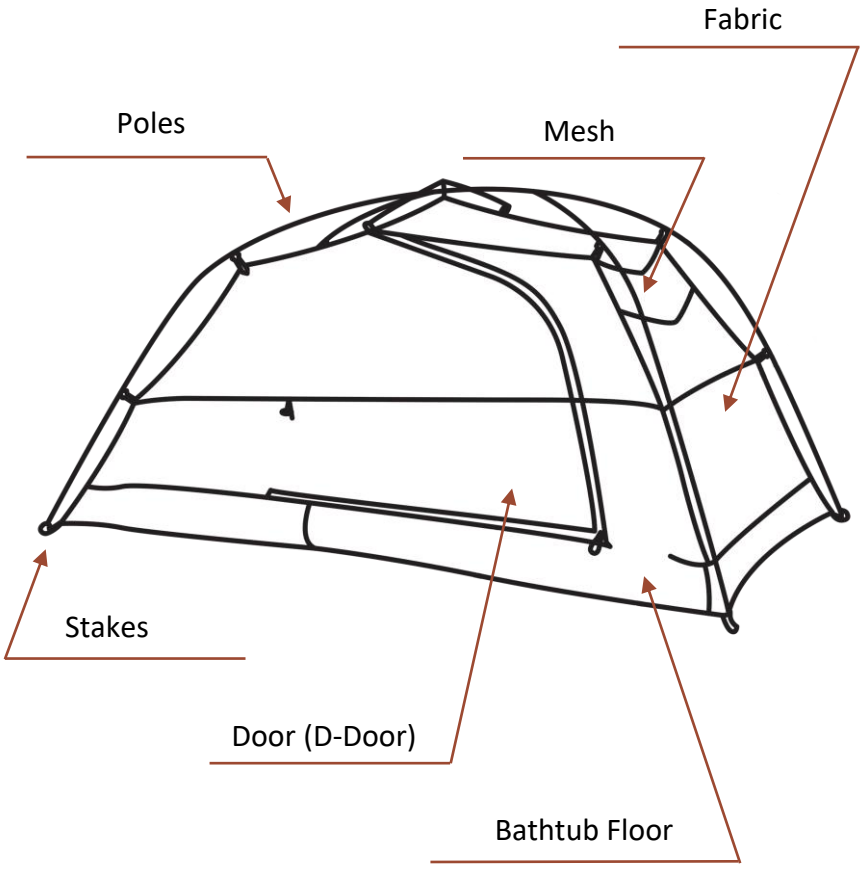
2. Basic tent types
   a. Free standing vs. non-freestanding
      i. Have your participants label the three tents in their manuals as freestanding, semi-freestanding, or non-freestanding.

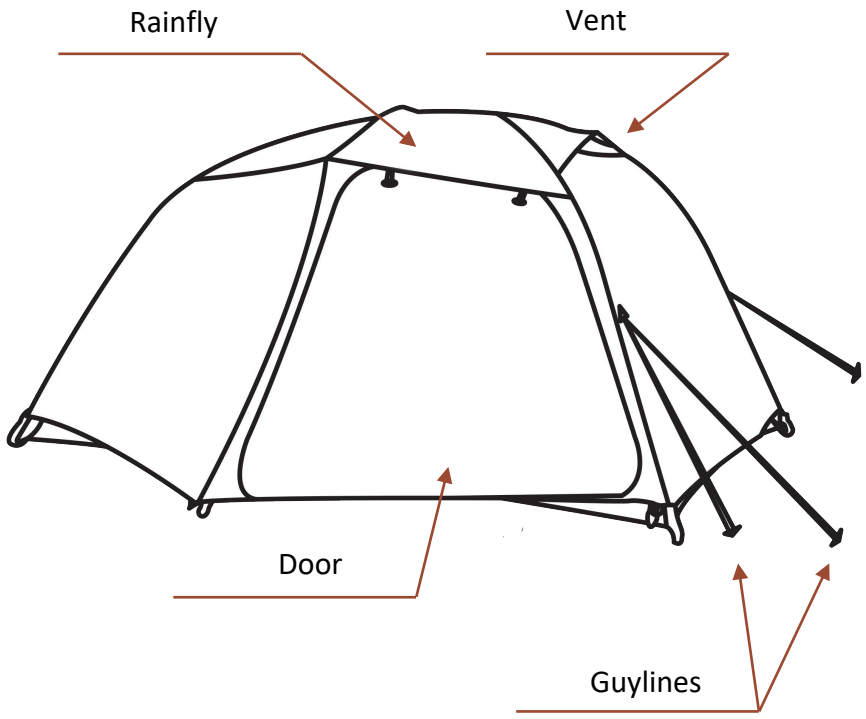
Freestanding	Semi-freestanding	Non-freestanding
		

   b. How poles are attached
      i. Sleeves: small fabric tunnel to guide tent poles into place
      ii. Clips: connect the edges of the tents to the poles; tension usually holds these in place
      iii. Built-in (seen in different styles of "pop-up" tents)

3. Tent Components
   a. Rainfly: waterproof cover that fits over the roof of the tent. It can be used for rain or for additional warmth.
   b. Ground Cloth (or Footprint): a sheet of fabric that goes underneath your tent. It provides extra protection for the bottom of your tent. It is less expensive to replace a ground cloth than an entire tent. Ground clothes may attach to a tent, be made for a specific tent model, or be an inexpensive tarp. Ones for specific models are called footprints.
   c. Stakes: stabilizers for tents. Recommended for windy or stormy weather where your tent might blow away. Stakes may be required to keep the rainfly off the main tent or to add ventilation.
   d. Guylines: cords going from the stakes to different equipment. They keep the rainfly away from the tent to prevent leakage. They also create stability against high winds or snow.

Activity: Labeling Tents Diagrams and Answers





Food Storage and Trash Activity (10-20 min)

Explain to participants that food should not be stored in tents. Trash should be in a dumpster or the car at night and any time the group leaves the campsite. All food should have secure lids. Coyotes, deer, and other animals are adept at getting into containers that aren't properly fastened.

Discuss various ways of storing food and trash using different types of coolers, bins, and even cars as available. Encourage participants to share their horror stories of people leaving food out (at neighboring campsites, never them of course) and having animals cause problems. Talk about when different types of storage options are appropriate. For example, putting food in cars in some locations with bears is discouraged or illegal. Bins may work great when the only concern is small animals and food doesn't need to be kept cold, but even deer have been known to break into bins and unlocked coolers to get to bread and other food.

Lead a discussion about the different types of coolers listed here from worst to best insulated and encourage participants to share which coolers they like and dislike and why to add to the information provided here.

1. Styrofoam
    a. Pros
        i. Inexpensive
        ii. Lightweight
    b. Cons
        i. Poorly insulated
        ii. Small capacity
        iii. Fragile
        iv. Not at all animal proof
2. Soft-sided
    a. Pros
        i. Collapsible and easy to store
        ii. Easy to carry, some are even designed to be carried as a backpack
        iii. May keep food cold for a couple of days if it has a hard liner to help insulate things
    b. Cons
        i. Not well insulated
        ii. Small capacity
        iii. Provide less protection for fragile items
        iv. Can be chewed open by small animals
3. Hard plastic (injection molded) coolers
    a. Pros
        i. Provide more insulation than most soft-sided coolers
        ii. Relatively affordable
        iii. Larger capacity
        iv. Provide protection for fragile items
        v. Resistant to smaller animals
        vi. Typically keep things cold for a few days
    b. Cons
        i. Not resistant to larger animals like raccoons, deer, and bears

        ii. Heavier than soft-sided coolers
4. Roto-molded coolers: these differ from the previous type in that the body is a single seamless piece of plastic with a lid that is a single seamless piece of plastic
    a. Pros
        i. Provide the best insulation
        ii. Larger capacity
        iii. Protection for fragile items
        iv. May be certified bear resistant -although this requires the addition of a padlock to be fully bear proof
        v. Keeps things cold for up to ten days
    b. Cons
        i. Heavy
        ii. Expensive
5. Bring trash bags for waste. Locate dumpsters and regularly dispose of trash. Trash should be in a dumpster or kept in the car at night to avoid attracting animals.

Demonstration for Disposing of Human Waste Properly (20-30 min)

This is a review of information largely covered in Tier 1, but it is worth repeating.

Start by talking about when to dig a cathole based on local conditions and rules and when it should be packed out. It is a good idea to introduce participants to the idea of packing out toilet paper in plastic bags even if waste can be buried since toilet paper does not decompose well in many places and popular locations tend to be littered with it all. You can ask the group how many have encountered parts of trails that smell like urine or are covered in toilet paper "blossoms." You can suggest to participants that they can mark a filled cathole with a stick or rocks if staying in an area for a while to avoid digging in the same location and pre-dig holes when camping in dispersed sites to make things less stressful in the middle of the night.

Show how to dig a cathole:

- 6-8" deep and wide
- 200 ft from water and camp 200 ft

You should also talk about menstrual products. While it may feel a little awkward for a male instructor, or even a female instructor, to discuss this in a mixed audience, remember that many people who menstruate reduce the time they spend outdoors because they do not know how to dispose of those items. It is important to make sure participants know that they should talk with their own groups about these things and that it can help some people feel more welcome when trip leaders carry a few emergency supplies. They should always be packed out (ideally in smell proof plastic bags, just like used toilet paper) and never put into latrines at campsites.

Demonstrate WAG bags (Waste Alleviation and Gelling) and how one might use one and other waste management items. Demonstrate how to use one (fully clothed of course) and some of the ways people with limited ability to squat might use one. For example, sitting on a large rock so that they can hang their behinds off the back or hugging a tree for support. Show how the crystals in the bag cause liquids to become a gel. Dog poop bags can also be a good option.

Making Fires (20-30 min)

This is a review of information largely covered in Tier 1, but it is worth repeating.

If your camping location allows fires, help participants practice different types of fire-starting and discuss ways to properly extinguish fires. Talk about fire scarring and choosing locations for fires. Remind participants to look above their chosen location to see if something above them could catch fire. Gather local tinder and have water close by.

Teach the following information about building campfires:

1. Fire Policies
    a. Fire hazards: "Nearly 85 percent of wildland fires in the United States are caused by humans. Human-caused fires result from campfires left unattended, the burning of debris, equipment use and malfunctions, negligently discarded cigarettes, and intentional acts of arson." Source: 2000-2017 data based on Wildland Fire Management Information (WFMI).
    b. Fire restrictions: many areas have rules regarding where and when you can have a fire. Some places have different rules based on season and elevation. Others don't allow fires at all. When you plan to have a fire on your trip, research the area's rules thoroughly.
    c. Steps for extinguishing fires:
        i. Drown the campfire with water.
        ii. Mix the ashes and embers with soil and water.
        iii. Scrape partially burned sticks and logs to make sure all hot embers are off them.
        iv. Repeat previous steps.
        v. Everything should be cool to the touch before you leave the fire area unattended.
    d. Stoves are preferred for cooking and have less impact than fires.

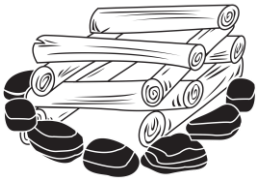
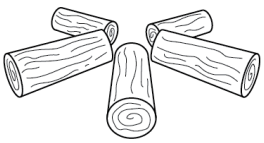
2. Fire Location
    a. Existing rings are always the best choice.
    b. Portable fire pits work if there isn't an existing fire ring.
    c. Rock rings can be used but can lead to black scorching. Keep fires small to minimize scorching. Do not build fires near stone fences, caves, or areas that will create fire scars.
    d. Clear the ground of all flammables.
    e. If the fire is on soil, build a mound of loose dirt to prevent creating a dead spot.
    f. Avoid locations with overhanging branches.

3. Logs, Fuels, Kindling, and Tinder
    a. Tinder needs to be dry
    b. Use local wood. You risk the area you enter when you use non-native wood. Non-native wood can introduce invasive insects or diseases. This is a major issue.
    c. Remove and properly dispose of anything that doesn't completely burn. Remove all signs that a fire existed.
    d. If gathering wood, check the area rules and do not bring saws or axes. Use wood on the ground you can break with your hands.
    e. Tinder examples
        i. Dry bark from fallen wood
        ii. Small wood shavings from logs
        iii. Fatwood: pine with resin

iv. Commercial fire starters (usually something fibrous with an accelerant)
v. Homemade fire starters (cotton balls and petroleum jelly or the equivalent)

4. Fire Starters
    a. Regular matches: work fine but difficult in wind and rain
    b. Stormproof matches: stay lit longer and work better in bad weather
    c. Lighter: may not work in extremely cold weather or high altitudes. Can run out of fuel.
    d. Ferro rod and striker: require practice and dry, fluffy tinder. Stores well and lasts a long time.
        i. Ferro rods are not hard to use but require practice. If you have time, let participants try using them to light their fires. Doing so will likely increase the fire activity time to 15+ minutes.
5. Fire Shapes
    a. Participants have diagrams with pros and cons charts for three types of campfire shapes in their manuals. Invite them to fill out the charts while teaching them about the shapes.

Fire Shapes Information

CONE	PROS
	• Simple • Fast
	CONS
	• Doesn't last as long as other types • Prone to collapsing
CABIN	PROS
	• Easy to learn • Burns hot • Supports cooking
	CONS
	• Harder to maintain as you add logs
STAR	PROS
	• Uses less wood • A good campfire if you mostly have large logs to burn. • Very fuel efficient • A good cooking campfire
	CONS
	• Requires constant attention • Not as hot as other types

6. Fire Safety
    a. Do not let children (or adults) run near fires.
    b. Keep waterproof gear away from smoke. It can affect the coatings.
    c. The only liquid fuel that should ever be used is lighter fluid, and that should be before a fire is lit. Gasoline can cause much more damage and is harder to control. Burning gasoline can also cause noxious fumes.
    d. Never leave a fire unattended even if it is just smoldering. A leaf can fall on hot ash and catch fire. Follow the steps for extinguishing fires under Fire Policies (and in the participant manuals).

Activity: Building a Fire (10 min)

Each group will need

- A fire ring, fire pit, or fire blanket (with a pile of dirt in place to save time)
- 3-5 logs (depending on fire shape)
- Kindling
- Tinder
- A lighter or other starter

10 minutes only allows each group to try building a cone fire. You will need more time and more rings, pits, or blankets if you want participants to build and light more fire types.

If time allows, you may cook a simple meal such as a hot dog. Cook on grills on the fire rings or on a camping stove.

After everyone builds fires, review the objectives. Ask for everyone's confidence and understanding of the objectives. Try to be available for questions after the lesson ends for those who were uncomfortable asking in front of the larger group.

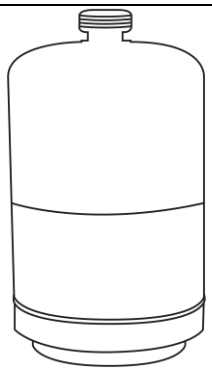
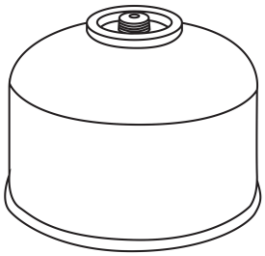
Using Stoves (30-60 min)

This is a review of information largely covered in Tier 1, but it may be necessary to repeat it for participants with less experience.

Introduce canister stoves to your participants.

- Canister stoves are commonly used outdoors. They typically use propane or isobutane. These fuels are not usually interchangeable. Always use the right fuel type for your stove.

Have your participants fill out their Canister Pros and Cons table in their manual based on the information on the completed version below.

Canister Pros and Cons		
Type	Propane	Isobutane
		
Use	• Car camping • When weight isn't a factor	• Backpacking
Pros	• Can work in the cold • Setups are usually like a kitchen stove • Multiple burners • Stable • Great for large groups	• Lighter • More energy in volume (fuel lasts longer)
Cons	• Heavy	• Doesn't work as well in colder weather • Usually more expensive than propane • Usually one burner

Talk about Setup, Tips, and Safety.

- Make sure you are using the correct fuel for your stove. In most cases, fuel types are NOT interchangeable.
- Sometimes igniters on stoves get damaged, so have a backup igniter.
- Canister leaks have a distinct smell. Keep a nose out for it.
- Do not use stoves inside of a tent. In-tent use can cause carbon monoxide poisoning or tent fires. Food also attracts animals.
- Canisters can be recycled. Carefully punch a hole through the sides of the canisters to vent any remaining gas. Recycle with mixed metals. Always research best practices for recycling and disposal.

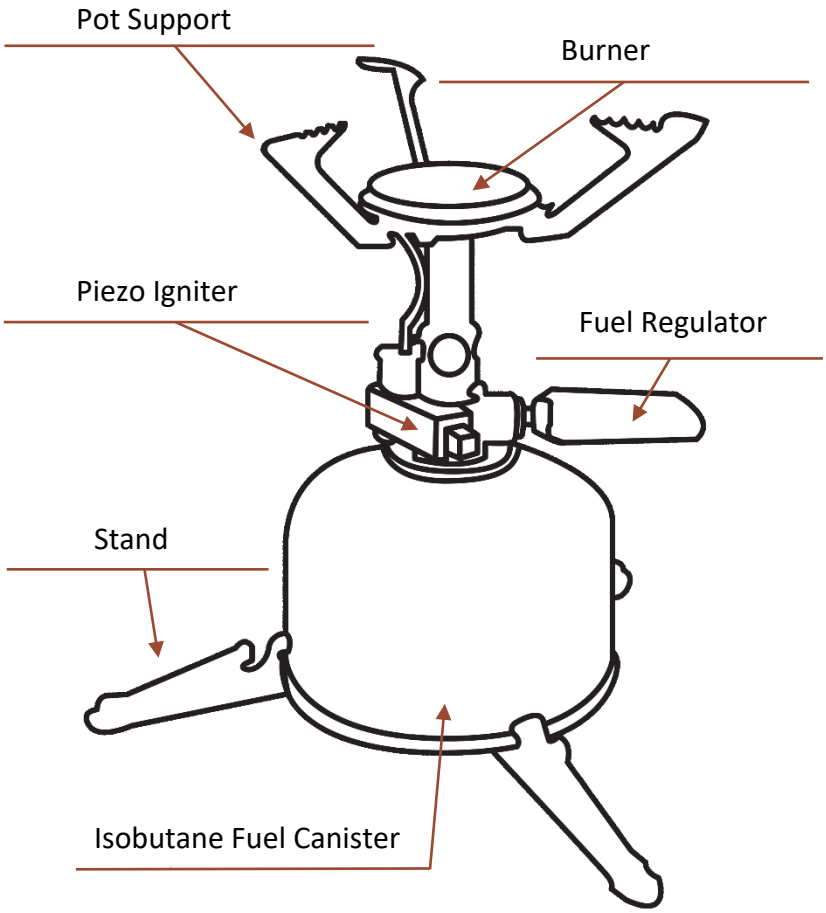
Activity: Label the Stove Diagrams (5 min)

Your participants have diagrams with word banks and labels in their manuals. Introduce the parts of different stoves and have them write the answers on the labels.

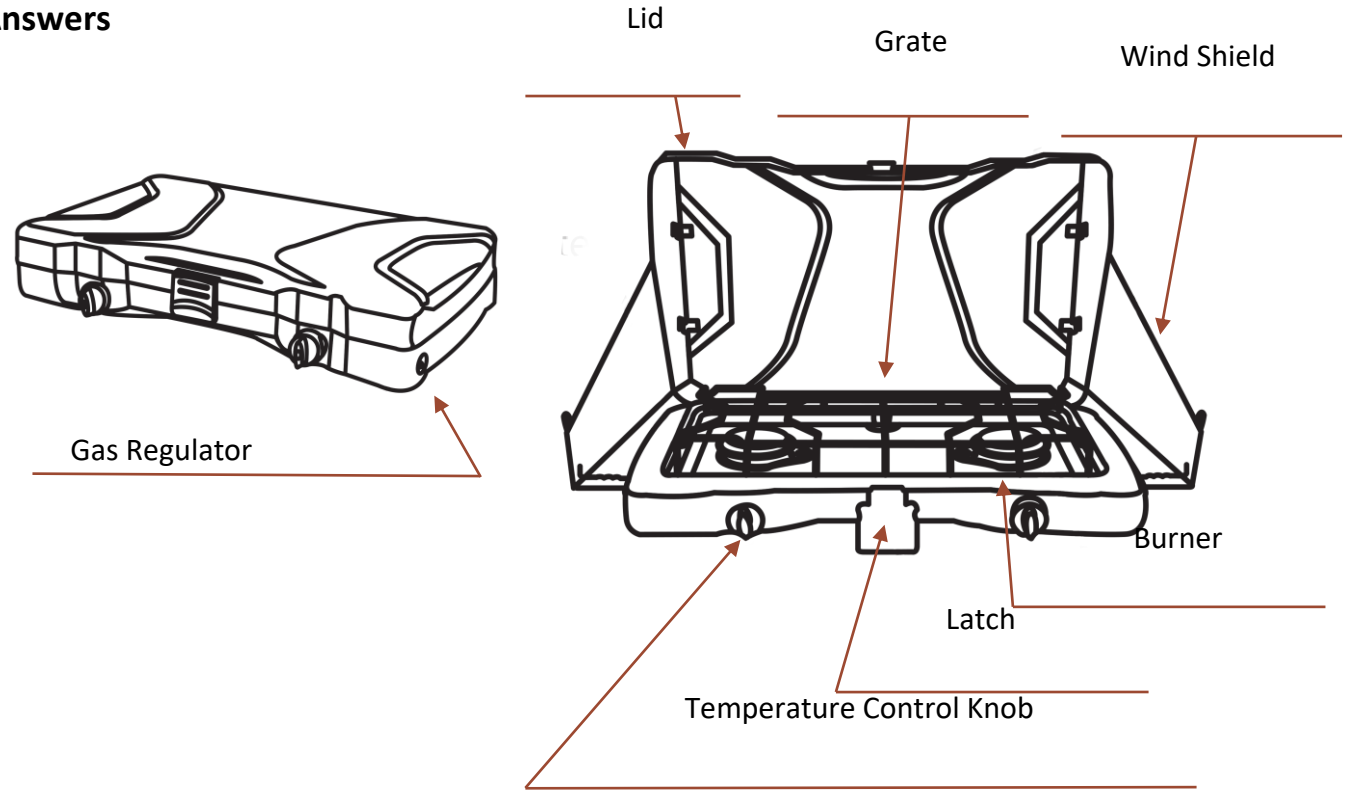
Activity: Using a Stove (10 min)

Have teams of 2-3, practice setting up and lighting stoves. Have each group boil a pot of water. You could have them cook a simple meal if time allows. Encourage participants to write down what they might need for cooking and eating their meals. Talk about proper food clean up. Review the parts of stoves using the diagrams taken from Tier 1 workshops provided below. Your participants do not have these diagrams in their workbooks for this workshop, but they can find them in Tier 1.

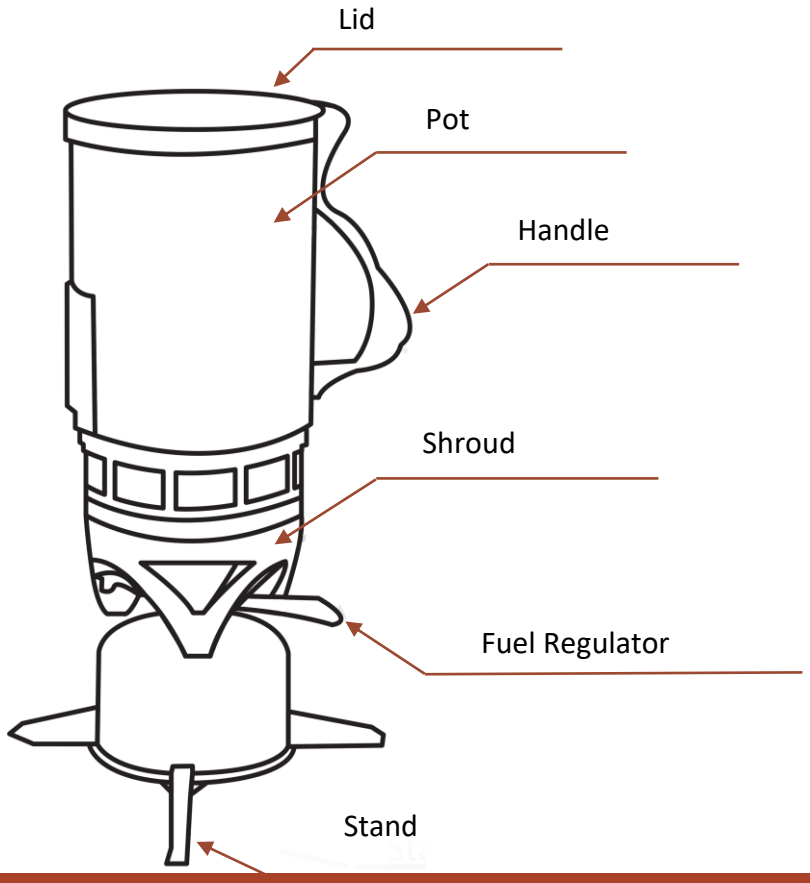
Canister Stove Diagram with Answers



Coleman-style Stove Diagram with Answers



Jetboil-style Stove Diagram with Answers



Gear Geeking (10-20 min)

Invite participants to bring their gear to allow participants to compare gear designed for different activities, like camping from a vehicle and backpacking, and different price points. Provide an assortment of essential gear to compare as well. Sleeping bags, sleeping tents, camp stoves, and lanterns are all key gear to pass around for participants to experience. This could be a good time to schedule a gear shakedown.

Evening Debrief for Group Communication (varies)

Review the day and talk about the plan for tomorrow. When reviewing the day, give each participant the opportunity to share their highlight, their biggest challenge, and the best thing they learned from the day. Before dispersing for the night, make sure everyone knows the plan and timing for the next day. This can be done around a campfire or with a lantern. Some groups plan for more in-depth discussions during this time.

Morning After Gear Review (20-30 min)

Talk about what worked and didn't in your sleeping arrangements. Were the participants too cold or too warm? Was the setup difficult? How was the tent's layout? Encourage participants to write down their thoughts on what worked well and what they want to do differently to consider when planning future trips and gear purchases. We have included a "Gear Geeking" note section for them to take notes on other participants' gear that they like for future reference.

Caring for Gear Discussion (10-20 min)

As a last activity, it is good to review how to care for gear when you return home. The participants have space to take notes on this and, if time and energy allows, encourage the group to discuss what they do if it differs from the information below.

1. Wash gear according to direction. Grease and dirt degrade pads. Oils on sleeping bags can decrease insulation. Be careful with the type of detergent used. Dry on low heat. It's critical to follow manufacturers' instructions.
2. Store according to directions. Self-inflated mattresses should be stored flat with the valve open. Air mattresses can be rolled up.
3. Store sleeping bags and tents loosely folded in cotton bags to extend their lives and temperature ratings. Do not compress insulation.
4. Wash all dishes, pots, silverware, and other kitchen wares and return them to camping gear. Don't wash any coated metal utensils in a dishwasher using dishwasher detergent. It will strip the coating. Hand washing is best unless something explicitly says dishwasher safe.
5. Give away or eat any opened food that will spoil before your next trip.

Taking Down the Campsite (10-20 min)

Whether you set up a full campsite prior to the start of the workshop to give a tour or had participants set it up as an activity, it's important to experience packing things up. That will help participants gain useful experience and see the issues that can happen if they don't remember how things fit in their containers. After packing up camp, have the group look around to see what microtrash was left behind. Make sure all gear is returned to its owner before leaving.

Special Conditions Camping Scenarios

Scenario 1

Cold environment, high winds

You are running an event for your organization where families can register to join your camping trip for 3 days and 2 nights at Mt. Charleston. You are using a group site at Mahogany Grove and have your event starting at noon. Everyone is responsible for their own food and gear. The campsite is "dry," so everyone is asked to bring a gallon of water per person per day. There is a vault toilet, but it doesn't provide hand sanitizer. There is no cell phone reception at the campsite. The cost of the site is $138 per night.

Two days before the trip you have 13 people confirmed for 2 nights. You received emails asking if they can drive their car to the campsite. Only 8 cars are permitted. There are camp pads at the campsite and 10 tents. There is a wind advisory in the area with wind gusts up to 25 mph. The temperature will drop to 30°F, but the wind chill will make it colder. You have a group site. You are told that while it is a "dry" site, it has a bathroom. The bathroom is a pit – hand sanitizer and toilet paper are not guaranteed. The high winds make it difficult to cook, so everyone is packing freeze-dried food. This is also good because some members of your group have dietary needs due to severe peanut allergies and a vegan diet.

Scenario 2

Exposed area with little shade

You planned a camping trip at Boulder Beach campground near Lake Mead. You have 15 people registered to come to your campout. Everyone was asked to bring lunch. Group meals will be served for dinner and breakfast. The camp is exposed with little shade. Your plan is to get out to the lake as soon as possible in the morning. Two days before the trip, the temperatures are going to be in the 90s before 10 am and will rise throughout the day up to 120°F. There are bathrooms and water. It costs $80 a night for the group site.

Scenario 3

Leading a group of strangers

You are planning a camping trip but only know one of the eight people who have been invited to join you. Everyone will be traveling in two cars. People have asked what gear to bring and where to get it. You are unsure of everyone's experience or what gear they have. One of your friends has never camped before and is nervous about the entire experience. You are camping at Red Rock Canyon NCA, which is $66 for two nights for a regular camping site. You asked everyone to contribute $40 each, not counting gas and other expenses.

Scenario 4

Chris is organizing his annual camping trip at Mt. Charleston in late July. He looked at recreation.gov for four months for his event. All reservations were full. Chris is looking for other options for dispersed camping on Mt. Charleston. He has three friends joining him with camping experience but not dispersed camping experience.

Additional Resource Recommendations

Consider reading online about when injuries should be evacuated, types of camping, finding a campsite, rules for specific sites and regions, permits and fees, and food safety and encouraging your participants to do the same.

Notes

Car Camping Checklist

This checklist is in the participant manual.

The advantage of car camping is taking more supplies with you. This list offers suggestions for a car camping trip. Check off what fits your trip or items as you pack them.

Items marked with a * are for winter trips.

Clothes

Head and Upper Body	Lower Body and Feet
☐ Beanie (fleece or wool hat)	☐ Hiking boots
☐ Brimmed hat	☐ Pants (nylon, spandex, breathable fabric)
☐ Fleece or wool jacket	☐ Shorts (nylon, spandex, breathable fabric)
☐ Long sleeve shirt (wool, thermal)	☐ Snow pants*
☐ Poncho (if your jacket is not waterproof)	☐ Socks (wool, cotton, liner)
☐ Scarf or face mask*	☐ Tennis or running shoes
☐ Snow jacket*	☐ Thermals*
☐ T-shirts	☐ Underwear
☐ Warm gloves*	
☐ Waterproof rain/wind jacket	

Cooking Supplies

Equipment and Cleaning	Dishes and Silverware
☐ Biodegradable dish soap	☐ Dish bins (3)
☐ Measuring cups	☐ Frying pan
☐ Pot handles	☐ Mug or unbreakable cup for each person
☐ Small container of bleach	☐ Pots (with lids)
☐ Stove (with fuel bottle)	☐ Serving spoon
☐ Waterproof matches or lighter	☐ Spatula
☐ Ziploc bags	☐ Spoons, forks, knives for each person
	☐ Tupperware containers for food storage
	☐ Unbreakable bowls and plates for each person

Sleeping, Shelter, and Hygiene

Sleeping and Shelter	Hygiene
☐ Nylon ropes	☐ Brush and comb
☐ Sleeping pad	☐ Bug spray
☐ Smaller tarp	☐ Dromedary bag (washing)
☐ Tent/tarp	☐ Lip balm
☐ Winter*/Summer sleeping bag	☐ Pads or tampons if needed
	☐ Sunscreen
	☐ Toilet paper/paper towels
	☐ Toothbrush and toothpaste

Useful and Optional Items

Useful Items	Optional Items
☐ Bandanas	☐ Books
☐ Duffle bag or storage tubs	☐ Camera
☐ Extra batteries	☐ Field guides
☐ First aid/repair kit	☐ Notebook and drawing supplies
☐ Headlamp/camp lamp	
☐ Medications (as necessary)	
☐ Plastic bags (heavy-duty)	
☐ Pocket knife	
☐ Sunglasses	
☐ Water bottles	

Add Your Own List Items

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXAMPLE CAR CAMPING TRIP FORM

Trip Name

Red Rock Canyon National Conservation Area

Trip Location

Group Campground, 3293 Moenkopi Rd, Las Vegas, NV 89161

Trip Purpose and Objectives

Explore Red Rock Canyon NCA and enjoy time with friends

Trip Leader 1 Name	**Cell Phone #**
Jeni Scout	1-702-333-3333
Trip Leader 2 Name	**Cell Phone #**
Tyler Hyke	1-702-555-5555
Trip Emergency Contact	**Cell Phone #**
Friend Smith	1-702-444-5555

Checklist

- ☐ Permits Printed or Saved
- ☐ Weather Links sent to participants
- ☐ Driving Directions sent to participants
- ☐ Map or topo info sent to participants
- ☐ Additional resource info sent to participants
- ☐ **Pack items from car camping checklist** _____
- ☐ **Prepare and pack food plan** _____
- ☐ _____
- ☐ _____

LIST OF VEHICLES

Tyler's Expedition

Jeni's minivan

RESOURCES

www.redrockcanyonlv.org

WEATHER REPORT (update morning of trip)

Low 51, High 78, no rain

Check morning of trip at

Check at Redrockcanyonlv.com/weather

TRIP ITINERARY

Date **5**/9/2025

TIME	ACTIVITY	LOCATION AND NOTES
	DAY 1	
9:00am	Departure	Jeni's house (xxxx 4th St, Las Vegas)
9:15-9:45	Driving	Red Rock Canyon Entrance
10:00-11:30	Set up campsite and get oriented	Red Rock Canyon group campground
11:30-12:00	Lunch	Picnic at the trailhead
12:00-4:00	Hike	Kraft Mountain (3.5 mi)
4:00-6:00	Downtime	Cooks need to prep for dinner at 5pm
6:00-7:00	Dinner	Family style dinner and clean up
7:00-8:00	Group game	Assassin is a fun group game
8:00-10:00pm	Campfire with group day debrief	Group can help anyone having gear issues
	DAY 2	
8:00-9:00am	Breakfast, put away camp for the day to protect gear from wind and animals	Cooks need to prep at 7:30am and put our lunch out for individuals to pack for the day
9:00-12:00	Climbing	Meet guide
12:00-12:30	Lunch break at climbing area	Sweep area after eating
12:30-3:00	Climbing	
3:00-5:30	Downtime at campsite	Journal, group games, personal time to bathe
5:30-6:30	Dinner	Cooks need to prep at 4:30
6:30-7:30	Group game	Capture the Flag
7:30-9:30	Campfire with group day debrief	Chat or play games by lantern light
	DAY 3	
8:00-9:00	Breakfast	Cooks prep at 7:30 and put out lunch for individuals to pack for the day
9:00-10:00	Pack up camp	Sweep camp, have loaders organize gear and load into vehicles
10:00-11:00	Drive home	
11:00-11:30	Trip debrief	
12:00	Pick up time and lunch with parents	

SAFETY MANAGEMENT PLAN	
Address and Phone # of Hospitals (along the way and nearest to destination) Summerlin Hospital Medical Center – 702-233-7000 756 Town Center Drive Las Vegas, NV	
Name & Phone # of Search and Rescue (County Sheriff) Call 911 if it's an emergency to reach Las Vegas Metro police and Search and Rescue	
List of Participants with First Aid Training (and their level of training) Jeni has CPR and first aid	
Checklist ☐ Communication Device or Plan (other than the leader's cell phone) ☐ Liability/waiver form for organization ☐ Driving directions sent to participants ☐ _____ ☐ _____ ☐ _____ ☐ _____	**Emergency Response Steps** 1. STOP and assess 2. Provide care to the injured based on your training 3. Decide if an evacuation is needed and make a plan 4. Communicate with: • Other Participants • Search & Rescue • Medical Assistance • Emergency Contacts • Your Organizations

TRIP BUDGET

Expense	Amount	Notes
Transportation	$50	Gas
Food	$360	Food for three days, $10 per person per day
Campsite	$168	C-Road Runner
Supplies/Gear	$40	First aid kit
Total	$618	
# of Participants	10	
Cost per Participant	$61.08	

TRIP ROSTER

Name (role)	Contact #	Emergency Contact	Emergency Contact #	Health Considerations & Signs of Issues
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

TEN PLUS ESSENTIALS PACKING LIST

Navigation: Map, Compass, & GPS System	**Sun Protection: Sunglasses, Sunscreen, & Hat**
Everyone has Gaia downloaded with the area downloaded for using offline and Friend has a compass and topo map of the area	Bottle of SPF 30 Hats and sunglasses The campsite has some shade over the tables
Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear	**Illumination: Flashlight, Lantern, & Headlamp**
Fleece Jacket and emergency rain ponchos	Headlamp with extra batteries and 4 group lanterns with extra batteries
First Aid Supplies	**Fire: Matches, Lighter, & Firestarter**
First aid kit for group	Lighter and matches 3 bundles of local firewood Box of fire starters
Repair Kit and Tools: Duct Tape, & Multi-tool	**Nutrition: Food Makes All the Difference**
Duct tape, multi-tool, and some repair kits that came with some of the sleeping pads and tents	See meal plan for details Individuals will bring their favorite snacks and drinks Pairs will be assigned to bring and cook each meal
Hydration: Water & Water Treatment Supplies	**Shelter**
Camelback 32 oz Two extra bottles (24 oz each) Campsite has running water	Emergency blanket for hikes, but everyone has tents for shelter
Disposing of Human Waste	
Campsite has latrines Tyler has a WAG bag as backup for hikes	

Sample Food Plan Form

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
1	On own	Turkey wraps (wrap tortillas, turkey, mustard, mayo, coleslaw)	Dutch oven lasagna (box of noodles, bottle of marinara, bag of mozzarella, container of ricotta, bag of spinach, garlic bread)	Apple and bars	Chips and salsa	Baked goodie	Pack as is in cooler and food box
2	Bagels, cream cheese, apples, bananas, oranges	Sandwiches (turkey, ham, sliced cheese, mustard, mayo, spinach, red pepper), Pringles	Calabacitas (squash, corn, black beans, onion, sweet potato, tortillas, green chili, shredded cheese, garlic, oregano)	Oranges and bars	Caprese (tomatoes, mozzarella slices, balsamic vinegar)	Cookies	Make and freeze calabacitas, put remainder in cooler and food box

Options for Additional Meals

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
3	Vanilla yogurt, granola, muffins	Pitas, hummus, tabouli, tomatoes, cucumbers, summer sausage	Rice, sausage, veggies (minute rice, turkey sausage, red pepper, cherry tomatoes, onion, pesto)	Apples and bars	Oreos	Jell-O pudding	Pack as is in cooler and food box
4	Breakfast burritos (eggs, hash browns, salsa, tortillas)	PB & J (bread, almond butter, peanut butter, strawberry jam, grape jam)	Pesto, pasta, zucchini, red pepper, and sun-dried tomatoes	Dried fruit and bars	Goldfish	Oreo pie	Make and freeze eggs and potatoes, box and cooler for the rest

2.2 BACKPACKING

ABOUT

Brief Description

In this workshop, you will help participants learn the skills to backpack on their own and eventually lead a group. You will introduce them to planning and logistics, gear options, how to pack a backpack, and how to stay safe.

This workshop is ideally a short distance one-night backpacking trip with a pre-trip meeting held a few days before your departure. The combination allows instructors to make sure that participants have gear that fits and are not carrying too much. If there is not enough time for an overnight trip, this workshop can also be run as a long day trip where the group stops and practices setting up camp and using their gear before heading home. This will give participants the chance to learn by doing. Instructors will act as guides and coaches.

Learning Objectives

After this workshop, and with some practice, participants will be able to:

Pre-Trip Planning Meeting

13. Select appropriate clothing and equipment for a backpacking trip.
14. Pack a backpack for up to a three-day backpacking trip, including the Ten Plus Essentials.
15. Assess the weather (and throughout the backpacking trip).
16. Plan rations for healthy meals.
17. Plan water for the trip: where to collect it, what equipment is needed to make it safe, and how much to carry.
18. Create a trip plan from a scenario.
19. Review a trip plan and assess the itinerary, mileage, elevation gain and loss, participants' experience and fitness levels, and anticipated hazards.

Backpacking Trip

6. Navigate to a backcountry destination using a map and compass.
7. Select a campsite.
8. Set up a tent and tarp.
9. Properly dispose of human waste in the backcountry.
10. Properly gather and treat water in a backcountry setting.
11. Use proper hygiene in the backcountry on multi-day trips.
12. Properly store food and supplies in a backcountry setting.
13. Use a backpacking stove to cook healthy meals in the backcountry.
14. Assess basic risks along the way and increase situation awareness to keep the participant and their group safe.

Intended Audience

Ages 18+

Participants should be experienced in leading groups camping and hiking. They should already be comfortable with gear for camping from a car and ideally have a little backpacking experience.

Time

Pre-Trip Meeting: 1-2 Hours. Backpacking Trip: Overnight with at least 4-6 hours of “workshop” time each day.

Materials Needed/Toolkit

- A Trip Form for each participant
- For pre-trip meeting if reviewing gear beforehand
    - Measuring tapes for fitting backpacks (cloth or flexible measuring tapes are best)
    - Tarps for organizing participant gear
- Backpacking Scenarios for Discussions (at the end of this module)
- Backpacking Packing List
- Meal Planning Form

Location Setup

The pre-trip planning meeting can be done anywhere with sufficient space. The backpacking should be done on a short and easy trail where backpacking is permitted. Even if the workshop is done as a long day trip, it is smart to make sure you can set up tents along the trail you want to use.

Group Size

Backpacking is done best in small groups. Trails often have group size limits. It is also easier to enjoy the experience. If you are running this as an overnight trip, the group should be 4-12 people, but ideally 8 or less. If you are running this as a long day trip, 12 is the maximum recommended for modeling a backcountry experience.

Helpful Instructor Skills

We recommend at least two trip leaders when teaching this workshop.

Instructors should:

- Have backpacking experience, including leading a backpacking group
- Know the workshop location (ideally by backpacking it prior to the workshop)
- Have experience navigating with a map and compass
- Be comfortable with first aid (Wilderness First Aid and CPR certification recommended)

Trip Gear for Leaders

Between them, leaders should carry a large first aid kit and some basic back-up essentials for the group. This may include extensive repair kits and extra water and food depending on how available they are along the backpacking trail.

Encourage everyone to bring what they have to the pre-trip meeting and let instructors know before the trip if they need gear. During the pre-trip meeting, instructors will want to review everyone's gear and supplement items or instruct participants on how to rent missing gear.

1. **Ten Plus Essentials**

    a. The Plus: Bring two WAG bags per participant if using them – especially for a group who isn't used to using them. Recommend smell-proof, larger, Ziploc-style bags to store used WAG bags to reduce the smell of human waste.
    b. Dry bags designed for dog poop can also work well for participants who might be turned off by the smell of human waste.
    c. Alternatively, make sure all participants have a trowel, toilet paper, and a Ziploc-style bag or a smell-proof bag for used toilet paper.
2. **Tents**: enough for each small team to have one. Try to include a variety of tents including freestanding, semi-freestanding, and even hiking pole supported (not freestanding) if available. They should all be lightweight or large enough for participants to divide up the weight. Because beginner backpackers are not used to the intimacy of tent sizes, make sure that tents are designed for at least one more person than will use it on the trip. Also include groundsheets large enough to protect the tent bottoms.
3. **Backpacks of different sizes and complexities.** Show different kinds during the pre-trip meeting. When backpacking, smaller capacity bags may be used but will have to stay at the trailhead if you are using synthetic sleeping bags. You will need one per participant unless they have their own.
4. **Sleeping bags and pads**: one per participant unless they have their own. Pay close attention to the weather and match the bag and pad rating to the temperature.
5. **Varied stoves and fuel:** one for every 2-4 people. Recommended types are canister stoves, super lightweight backpacking stoves, a white gas stove, and an alcohol stove.
6. **Two ways to light stoves**. Even if a stove has a built in lighter, they can fail. Carry a backup. Lighters, storm matches, and ferro rods all work.
7. **Pots and dishes necessary for meals and stoves**
8. **Food**: Have a suggested menu if asking participants to bring their own food. Alternatively, supply meals and snacks appropriate for the length of the trip. If time allows, bring samples of freeze-dried meals for participants to try at the pre-trip meeting.
9. **Group first aid kit**
10. **Navigation materials**: a topographic trail map of the area, compass, and GPS device. Bring enough for every 2-3 people to have something.
11. **Food bag hanging gear** for each individual, or a bear bag or canister if appropriate.
12. **Water filters:** it is nice to have one for every 2-3 participants and for there to be different types
13. **Emergency information tags** for each individual listing their full name, weight, age, blood type, emergency contact information, medications, medical conditions, the location of their health insurance information (if they have insurance) and contact information for a physician if they are under the care of one.

Workshop Logistics

Pre-Trip Meeting

Ideally this workshop is run as a 1–2-hour meeting followed by an overnight backpacking trip where the group hikes 1-3 miles depending on the fitness level of the weakest participant.

If necessary, the pre-trip meeting could be done virtually or as an hour at the trailhead. These options carry some logistical issues.

Virtual meetings make it hard to fit participants for gear and you have to trust they have the correct gear. It can be difficult to run a single virtual meeting with a large group of participants since only one person can talk at a time or show their gear at a time. It might be helpful to divide participants into smaller virtual meetings of just 2-3 people so that you're able to focus on them and their needs in a short enough meeting that participants will stay engaged, but this works best if there is someone knowledgeable about backpacking and gear in each group.

At the trailhead, you will need to have access to an extensive gear library to make sure everyone is properly outfitted as well as a safe place to store any unused gear. With a large group, trailhead meetings could take 2-3 or more hours so try to make arrangements for shade if it will be a warm day.

An alternative option is to run this workshop as a long day trip. Participants can hike out in the morning and set up camp midday to practice pitching tents, cooking meals, and even napping or resting in their tents and sleeping bags. This may be less stressful for participants new to backpacking and makes poorly fitting gear less of a problem, but it is not the same experience as backpacking overnight. Instructors should stress night temperatures and light sources on overnight trips if you use this option. The pre-trip meeting should still be included in a day trip, but it is easier to have the meeting at the trailhead as long as you can get packs properly fitted.

Backpacking Trip

Plan a multi-day backpacking trip lasting at least one night based on the assessed experience of your group. With unfamiliar groups, it is best to not exceed more than 6 miles with experienced day hikers and 1-3 miles with inexperienced hikers. Remember that you will stop frequently during the hike out to cover information and eat, so make time for that in your plans. The second day should not be extremely difficult as you may have a late start with cleanup or tired or sore participants.

This should be a hike you have done previously. Although it is important to involve your participants in most of the planning process, you should have the key elements of the trip planned prior to allowing them to participate, like dates, times, trail, and group size. Including participants in the planning requires pre-trip meetings, more time to plan and arrange things, and checking on participants frequently. Even if you can plan meals for an overnight trip quickly, assume your participants may need a week or more, especially if there are any dietary restrictions in the group.

Here are ways you could involve participants in planning your trip:

- Water
    - researching water availability and quality for the trail
    - making plans for what types and numbers of filters are needed
- Permits
    - determining required permits for backpacking on the trail

    - you could have one or two participants get permits (especially if you are agency staff and don't need them for this workshop)
- Weather
    - checking average weather and monitoring predictions as you get closer to your trip
    - making gear recommendations to the group (like warmth of sleeping gear, clothing layers)
- Elevation
    - researching elevation for the trip
    - planning for any type of elevation illness if applicable
        - can include planning mileage to avoid sleeping over a certain elevation and carrying altitude sickness medications in first aid kits
- Bear Safety
    - researching whether bear spray or canisters are required or recommended for the trail (although it is not recommended to choose a location with this as a factor), what sizes might be best and how to carry them
- Meals
    - planning meals to account for conditions on the hike and participant dietary needs
    - planning should include stoves, fuel, and any pots, pans, or cooking utensils needed.

Workshop

Pre-Trip Meeting

Your goal is not to have a perfect trip, but a safe and relatively enjoyable one so everyone feels empowered to continue adventuring. As an instructor, don't dictate everything everyone should bring. Have them think through the Ten Plus Essentials, ask questions, and plan for themselves.

Participants should bring what they think they will pack on their trip.

Pre-Trip Communication

5. **Trip Planning Form**: Make sure to collect information about your group for the trip planning form, like specific food allergies or medical needs.
6. **Handouts**: Send the following handouts before your pre-trip meeting or have them available in the course sign-up resources:
    a. Packing List
    b. Backpacking Gear Explanation
    c. Ten Plus Essentials
    d. Meal Planning
    e. Any organizational liability waivers

Introduction (15 min)

Establishing a Learning Environment (5 min)

Begin with a brief introduction to the instructors and the overall objectives of the course. This may be part of the pre-trip meeting or done at the start of the backpacking trip.

Group Introductions (10-15 min)

As individuals arrive, please have them prepare their gear for the Gear Review activity (details later in this module) and then gather in a circle. Introduce yourself briefly and then have each participant introduce themselves. If there is a risk of people taking a long time with their introductions, feel free to use a timer, but leaders should also time themselves. Here is some information that could be included in the introductions:

- Name
- Pronouns
- Experience level with backpacking: none (not recommended) beginner, intermediate, expert
    - It's okay to admit you aren't an expert, but leaders should have organized several backpacking trips prior to leading this workshop.
- What about the trip excites or worries you
- Your favorite snack, dessert, or breakfast food
- Any other thing that will catch participants by surprise and help them remember names
    - Examples:
        - What time they went to bed last night
        - Favorite thing they did as a kid when stuck at home sick
        - Favorite ice cream flavor, breakfast cereal, or beverage
        - Name of a first pet (or friend's pet or fictional pet if they have never had one)
        - Do they prefer…dogs or cats, ice cubes or pebble ice, or other opposing categories

Pre-Trip Discussions (optional, but recommended)

These discussions will allow everyone to think through the implications of trip planning and camping in the backcountry. This discussion can help establish group cohesion and good behavior for groups with little experience backpacking or working with each other.

Creating Your Perfect World

When you go into the backcountry with a group, you have the opportunity to create a "perfect society" by establishing group norms and expectations. The goal is to accomplish your group's goals while keeping everyone healthy and engaged. For this discussion, start with brainstorming ideas and end with a list of group expectations.

As a facilitator, ask the group to turn to the person next to them to divide into groups of 2 to 3. Have each person in their small group describe what would make their perfect society. Give a few examples to get participants thinking about what makes a group work well, like respect and clear expectations.

Once small groups have had time to discuss their ideas, bring the whole group back together and ask each small group to share their ideas. Take notes on a whiteboard or flipchart. The list becomes "group wishes" or ground rules that everyone can agree to. In the brainstorm reporting, you can add a star to items that multiple groups mention. An example list can look like the following:

- Respect one another
- Be on time
- Be prepared

- Take care of yourself
- Do your part
- Listen to one another
- Help one another

Successful Outdoor Trips

Now that your group has group norms, it is time to discuss what makes a successful outdoor trip. You can start this out as a discussion and end with another list that includes the following items:

- A clear intent or purpose (even if it is to enjoy the outdoors)
- Being prepared with food, water, and gear
- A doable and fun schedule or itinerary
- Reliable transportation and knowing where you are going
- Prepared participants that are challenged but not overwhelmed
- Able to communicate with everyone effectively before and during the trip
- Money to complete the trip
- Being prepared for the weather
- Knowing what to do if an emergency happens

The list becomes your lessons as you work through your backpacking curriculum. The idea is to model a successful backpacking trip where participants will learn by doing.

Activity: Gear Review (20-30 min)

Before the gear review starts, lay out your gear and with a tarp cover it to hide it. Have a fully packed backpack as well so participants can feel the weight of the bag. Your demonstration gear should reflect the conditions of the trip you are taking. For example:

- A summer backpacking trip at warmer temperatures should include low R value sleeping pads and summer sleeping bags or quilts if available.
- A summer backpacking trip at high elevation where nighttime temperatures could be cold should have a higher R value pad and warmer bag.
- If you need to carry a lot of water, make sure you include containers.
- If you know your source of water requires a special filter, include one.
- If high elevation could cause problems for stoves without pressurized fuel, make sure you have one that uses pressurized fuel.

The goal of the gear review is to look over the gear participants already have and evaluate it as a group. As participants arrive, they should lay out their gear. It can be helpful to have inexpensive tarps for each person's gear to keep it separate from the rest. As a group, walk to each set of gear and ask the owner to summarize what they like about their gear, what worries they might have about their gear, and what gear they think they are missing. Remember, everything doesn't have to be exactly the way you might pack, but make sure there are no glaring or dangerous issues.

Participants can use the Backpacking Checklist to judge who appears to be most prepared for the trip.

After the participants look through their gear, show the demonstration gear you have brought. Take a few minutes for questions, but feel free to delay answering some questions you might answer in later discussions.

Activity: Food Planning (10-30 min)

There are three options for food on a long day or overnight trip:

1. Everyone buys and brings their own (but it is a good idea to encourage stove sharing to reduce pack weight).
2. Organize participants into small groups of 2-4 who plan out their menu and organize their food together. This facilitates sharing gear and helps participants practice planning meals for a group.
3. The leaders can organize all food for participants and distribute it for individuals to carry on the trip. Make sure you take time to review the steps you took to organize meals during the pre-trip meeting so participants can learn from you.

For the first two options, make time for individuals or groups to plan out their meals. The plan doesn't have to be final, but it should incorporate any special dietary needs of group members as well as a discussion about food safety when traveling without a cooler.

Take time to discuss food storage for the trip including hanging food bags or canisters if your destination necessitates their use.

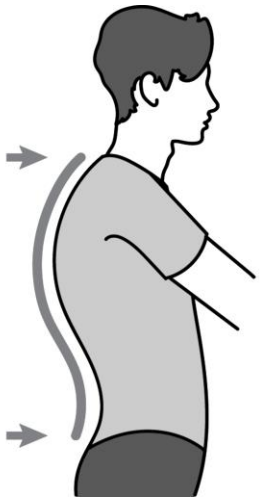
Gear Principles Discussion

Cover the following gear principles based on the Ten Plus Essentials with your participants:

Backpacks

Hikers should not carry more than 20% of their body weight in their backpacks.

Backpack Measuring



Backpack Fit

Have everyone try different backpacks and explain proper fit. Many newer bags are adjustable. Have participants measure each other for torso length from the top of the hip bones to the vertebra or bone that sticks out when you bend your head down. Measure the waist around the top of the hip bone. Size measurements can vary between brands, so look up brand fitting charts for specific backpacks. Have everyone play with different ways to adjust waist and shoulder straps.

If you have a packed example bag, demonstrate the correct way to lift and wear a backpack.

1. Lift it onto your thigh or another surface about that high using the haul loop. Do not lift it with the shoulder straps.
2. Slide one arm into a shoulder strap, then the second arm into the other strap.
3. Fasten the hip belt and tighten it until the weight of the pack is resting firmly on your hips. The belt should rest on top of your hip bones. Hip bones can feel bruised when you are first adjusting to backpacking.

4. Adjust the shoulder straps so they are not loose, but not so tight they put weight on your shoulders.
5. Adjust the load lifter straps at the top of the shoulder straps (if there are any) so they are at a 45° angle relative to your body.
6. Fasten the sternum strap. Slide it so it rests an inch below your collarbone. (You may have to adjust this distance if you have a prominent collarbone.) Tighten the sternum strap so there is no slack, but not to where it hinders breathing or movement.

Backpack Capacity

The participants have the following table in their books with blank spaces for trip length and volume. Review this information with them. If you do a pre-trip meeting and have backpacks that fit into each of the three size categories, it is helpful for the participants to be able to see them.

Trip Length	Gear Capacity	Notes
1-3 Nights	30-50 liters	If you are camping alone and must carry everything yourself, you will probably need the full 50 liters, unless you are camping without a tent. When backpacking with a group, you can divide shared gear and get away with a smaller bag. Smaller bags can work if you strap some of your gear to the outside of your bag.
3-5 Nights	50-80 liters	Most people recommend a 55-65-liter bag for most situations. Exceptions are for increased colder weather gear, or if you are leading a group and need to carry more gear as backup gear and first aid gear need more space. Smaller bags can work if you strap some of your gear to the outside of your bag.
Extended Trips	70+ liters	Experienced thru-hikers often use smaller bags, but only ultralight backpackers use much smaller bags. On extended trips the extra room isn't for more gear as your base weight (or weight of non-consumable gear) will be around what you carry for shorter trips. The extra room is for food and possibly water if you are traveling through drier areas.

Backpack Terminology

Help your participants learn backpack terminology using the fill-in-the-blank activities in their workbooks. Full definitions and tips are in the glossary, but below is what they have in their workbooks with the terms missing.

Fill in the blank activity

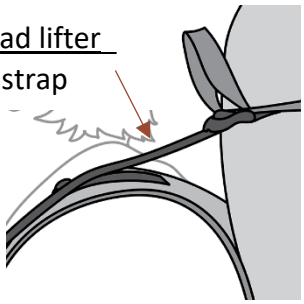
- *Base weight:* weight of all non-consumables in your pack plus the pack itself
- *Capacity:* volume of space in the pack (in liters)
- *Hydration sleeve:* a pocket in some packs that isolates a hydration bladder from the rest of the pack
- *Rain cover:* cover that protects backpack from rain

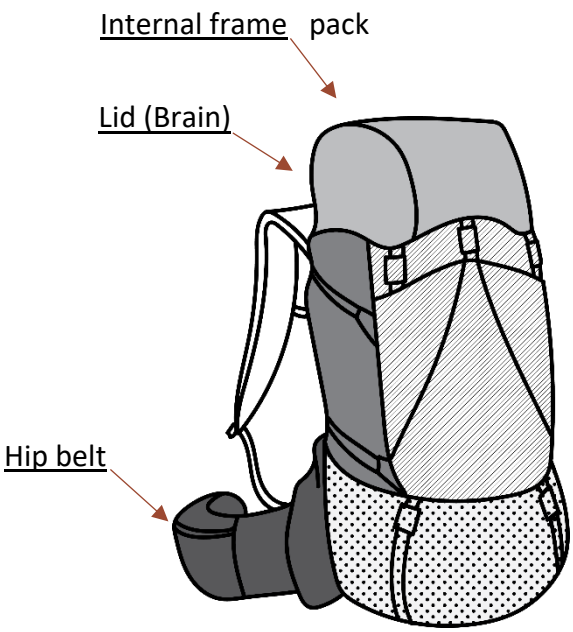
As you go over the parts of the backpack, participants can label diagrams in their workbooks. They have the following diagrams and possible answers given in two word banks, one for the top two diagrams and one for the three full backpack diagrams (given three times since these diagrams do not fit onto a single page).

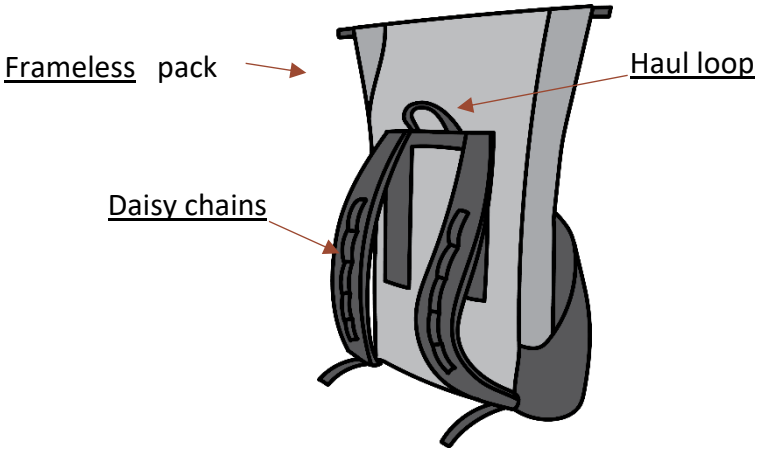
Backpack Diagrams terms

- External frame pack
- Internal frame pack
- Frameless pack
- Hip belt
- Load lifter straps
- Sternum straps
- Lid (also known as the Brain)
- Daisy chains
- J-straps and S-straps
- Haul loop

__J__ strap __S__ strap







Tents

See Module 1.1: Core Camping Skills

Participants will put up tents during the backpacking trip, so you shouldn't go into too much detail during the meeting. Focus on whether you have enough tents for participants and who will carry them. It might be good to show how much each one weighs. Depending on availability and trip length, you may want to swap different styles of tents throughout the trip to allow everyone to experience a variety.

Sleeping Bags and Sleeping Pads

Allow participants to look over available gear and review different types. Ask why people choose different items. Compare how much something weighs with the comfort level. Look at the temperature forecast for the night on the trip and check sleeping bag ratings. Ratings are not always accurate, and people should be prepared for cooler temperatures. See the *Basic Gear Guide* for information on R value comfort vs. survival temperature ratings and descriptions of quilts and bag types.

Weather-Appropriate Clothing

Talk about how much clothing you really need. People often overpack but also miss important items. Review the weather and terrain with everyone and lead a discussion around appropriate clothing. Discuss layers, nighttime temperatures, and gear for unexpected weather changes. Even in hot weather, layers are critical for staying cool and preventing sunburn. Bring examples of layers for the coldest weather you might hike in, what you plan to bring on the trip, and layers for really hot conditions. Don't forget headwear and gloves.

Suggested items for an overnight trip:

- Layers: You will need to plan layers to be comfortable outside the entire night based on the lowest temperatures. What you need to be comfortable for a few hours is not what you need for an entire night. These can vary for each person, but typically involve 3-4 pieces of clothing that layer over each other. A summer trip with lows around 70°F at night will still require some layers. Death from exposure can occur at temperatures as high as 70°F.
- Rain jacket or poncho
- Dry socks for camping and sleeping

Suggested items for longer trips:

- Layers sufficient for possible extreme temperatures
- Spare shirt (base layer) if trip is more than 2-3 days
- 3 pairs of socks (including one pair kept dry for sleeping)

Water

If possible, have everyone try different methods of water purifying. They might have a preference for what should be brought. Not everyone has to bring a filtration system, but everyone should bring enough water for their trip. It is recommended to bring one liter for drinking per person for every two miles of moderate hiking in moderate temperatures based on your ability and not what a hiking guide says.

More water may be needed for rehydrating food, cooking, and other needs. Hand sanitizer and wipes are best for cleaning as water is heavy. Remind participants that every item they bring adds weight to their pack so many people opt to leave some hygiene items behind. Many water bottles are heavy. Often, simple plastic water bottles are better for backpacking as they are reusable and lighter. Have everyone check the site and where they might find water.

- Discuss filtration vs. purification
    - Filtration is done by a water filter and removes larger pathogens including bacteria.
    - Purification is done by a water purifier (like chlorine tablets, UV light, ultra-fine filtration) and removes or kills viruses as well.
- Types of water bottles and bladders
    - Bringing a kitchen scare and allowing participants to weigh their bottles or bottles you bring could help. You could make it a game where participants have to guess the order of bottles from heaviest to lightest.
    - Bottle materials (metal, hard plastic, soft plastic)
        - Hard bottles and insulated bottles are often heavier than other types but easier to hold and shove into outside pockets on packs.
        - Hard plastic bottles are between metal insulated and soft bottles in terms of weight but may impart strange flavors to water.
        - Soft bottles weigh the least but may be hard to get into pockets and are easy to spill.
    - Hydration bladders (hard, soft, with hose)
        - Make sure you like to drink from the hose before using a bladder as your only water container; the effort involved may make you drink less water.
        - May be impossible to put full bladder into a full backpack without unpacking the entire pack (some have hydration sleeves for easy access).
        - May have compatible hose to connect to some pump-style water filters so you can fill the bladder without taking it out of your pack.
- Water collection measures for individuals vs. a group
    - You could lead a quick discussion about how much water participants normally take on a hike for themselves. If they have friends or family who hike with them, ask if some of them need more or less water. Use this as a starting point for planning the water for trips.
    - Have participants calculate water needed for the trip for drinking and food, for the full duration of the trip, or between water sources. This can be done on the trail as you stop to filter water.

First Aid Kit

This can turn into a long in-depth discussion on what should and shouldn't be brought. Instead, keep it simple and have your own basic first aid. Consider having a couple of participants carry more robust kits. Everyone should bring their own personal hygiene items and medications.

Have everyone complete an emergency tag, listing their weight, age, blood type, emergency contact information, and any medical conditions. These tags should be stored in a plastic bag and clipped to the outside of a participant's backpack for access in an emergency. Some companies make tags for watch bands that include this information, but they are expensive and require time to ship.

Backpacking Stove and Cookware

This is another item that will not need to be covered in depth until the backpacking trip. Make sure you have sufficient stoves for the types of food and number of people. Have each group test their stove to make sure it works. Tell them you can spread these out to those who may be able to carry more weight. Everyone should have at least a bowl, eating utensils, and a cup or mug. We suggest having both a regular backpacking stove and pot, and an integrated stove (like a Jetboil or MSR Windburner)

Food Storage

This will be covered in more depth during your backpacking trip. Have some different types of storage, like bear canisters and bags with rope and rock bags for hanging if necessary. Make sure you have enough for all participants.

Be able to discuss local requirements for food storage in wilderness areas. While there are no significant bear concerns in Clark County, NV, many surrounding areas do have bears, so canisters should be considered. For more information and a map of areas in Nevada where black bears are found, visit https://www.ndow.org/species/black-bear/

Food

Plan with your group how you will do food. In backpacking, you will expend a much higher number of calories than you would in a typical day. To determine your calorie needs, you can estimate using online calculators that measure 1.9 times your metabolic rate. Be warned that this rate is conservative, and many individuals may want or need more.

You must maximize calories, nutrients, and weight when determining your food. This is something that will be refined over time, so make sure everyone takes time to calculate and plan. This can be done independently, but you will need to adjust if you are doing meals together.

Typically, participants should plan for a meal a day that doesn't require heating. This isn't always necessary and depends on the mileage and situation of the day. This plan allows for hikers to eat lunch or dinner, then continue to the day's campsite without taking much out of their backpacks.

Disposing of Human Waste

Everyone will practice this during the backpacking trip. Bring a variety of ways to manage human waste. Bring sufficient WAG bags, trowels, water bidets, toilet paper, bags to hold used toilet paper, sanitation items, and anything else need. Distribute this among participants at the pre-trip meeting or at the trailhead. Consider providing them for participants if your budget allows. You will need to demonstrate (while clothed) how to use a WAG bag. Even with a demonstration, participants may not remember how to use them while hiking, so take time to review WAG bag usage regularly during your trip.

Navigation

Make sure everyone looks at a map for where you will be camping, the route to the campsite, and the route to the trailhead. Review the altitude change, the distance, and the itinerary. Point out landmarks on the map that can be seen from the trailhead before you start to help participants orient themselves to the maps.

Ten Plus Essentials Review

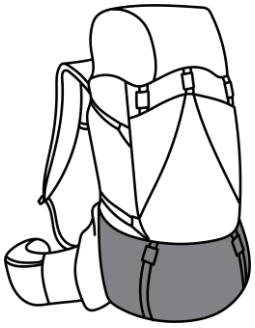
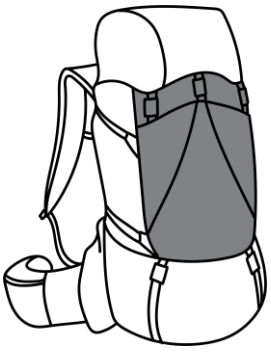
Review the items you brought to meet the Ten Plus Essentials. Make sure that everyone considers carefully what they are bringing and what they are forgetting. For example, some might think it is critical to bring a book. That is fine. During a debrief at the end of the trip, ask if they felt bringing a book was critical. Emphasize that phone flashlights are not sufficient but allow participants to learn if they chose not to bring additional lights.

Pack Backpacks

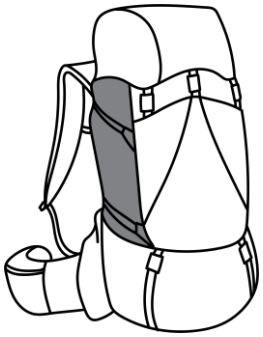
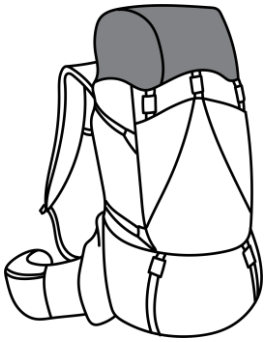
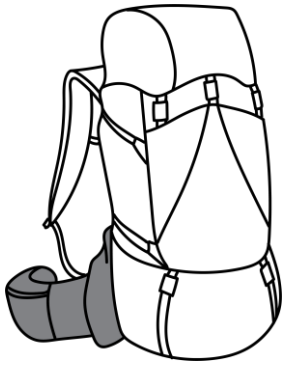
After you have reviewed and itemized everything, have everyone pack their backpacks. Weigh the backpacks. They should not weigh more than 20% of the carrier's body weight. Fitness level is also a major consideration. Have people adjust and reevaluate what they are bringing. If needed, redistribute some of the items to other people based on weight and fitness level. Compression bags also help bring your clothing volume down. Heavier items should be closer to the back and waist.

Packing a Backpack

The following tables will help participants learn where to pack items in their backpacks. Have them color in the corresponding area and finish the compartment labels on their blank diagrams.

Compartment	Items
Bottom section of main compartment 	Midweight items you won't need until camp like sleeping gear. Some packs have a divider and a separate zipper to access this section to allow for easier access without unpacking the entire pack. The divider and zipper add weight. Place your sleeping bag at the bottom of your pack. It can be kept in a stuff sack or compression sack or kept loose as other items will compress it. If you will be in wet conditions, you can cover your sleeping bag with a plastic bag.
Middle of main compartment furthest from back Front of pack 	Lightest gear is stored here to avoid making you prone to losing your balance. Lighter clothing like a puffy jacket and camp towels can help fill in space left by objects closer to your back. Lightweight toiletries can be kept here.

Packing a Backpack diagrams, continued

Compartment	Items
Middle of main compartment close to your back 	Heaviest gear should be kept close to the body. Hydration bladders go here if used. Food you don't need until camp is the next heaviest item after carried water. Keep your cooking and eating gear here. Make sure fuel containers are tightly sealed and positioned upright to minimize the risk of spills. Canisters and smaller stoves may fit inside cookware to save space. Keep fuel below food to prevent contamination in case there is a leak. Some suggest packing your tent in this area. If the tent is compressed, it is heavy for the space it will occupy. If the tent is loose, you can wrap the tent body and rainfly around heavier items.
Top of main compartment and brain 	Used for things you might need when hiking. 1. First aid kit 2. Water filter 3. Compass and map 4. Sunscreen 5. Rain jacket (if there is any chance of rain) 6. Snacks 7. Extra layers for warmth Toilet kit (WAG bags, trowel, toilet paper, hand sanitizer, and any other items)
Accessory pockets on the hip belt and elsewhere 	There is a lot of overlap in suggestions for what should go into the top of your backpack and your accessory pockets. Everyone has their own preferences, so play around and see what works best for you. 1. Sunscreen 2. Compass and map 3. GPS unit 4. Bug spray 5. Lip balm 6. Snacks 7. Headlamp 8. Water bottles 9. Rain cover (if you carry one) Car keys, cash, and ID (many bags have a clip inside an accessory pocket)

Compartment	Items
Outside loops and straps	You can use the loops to attach things to the outside of your pack. You can clip clothing that needs to dry (bring safety pins to help support it). Some loops can store trekking poles. You can strap a large sleeping pad or tent to the bottom of most packs with a sewn-on strap. You can loosen the straps that attach the lid to the pack and slide a larger item in that space. Secure items attached outside the pack so they do not bounce. Bouncing items can jostle you while walking and add to your energy expenditure. A swinging item outside a pack acts like an item ten times its weight. Tight and neat backpacks carry better and allow you to be more efficient in your movements.

Trip Form

Make sure the Trip Form is complete for your backpacking trip. Make sure everyone has a copy or access to the digital version. There is an example one filled in at the end of this section.

Backpacking Trip

Refer to Workshop Logistics in the beginning of this module.

Tips: When Starting the Trip

On the day of the backpacking trip, meet at the trailhead. Ask if anyone has changed their gear from the pre-trip meeting. If they have, ask what and why. Hearing a participant's reasoning and considerations benefits the whole group.

Plan for additional time as there will be issues that come up with those who are inexperienced. It is common for participants to need help adjusting their packs to fit comfortably although they may not realize it until they have hiked for a little while.

Make sure everyone remembers to take mental notes on what they enjoy and what they might do or pack differently. Do debriefs frequently throughout the trip and not just at the end.

Have a more experienced hiker be the sweeper to make sure the participants don't get lost. Designate a scout and keep everyone between the sweep and scout. Determine if you will stay in eyesight or if you will stop and regroup at each intersection to keep everyone together.

Getting to camp with plenty of light will allow you to do things with sufficient time.

Activities During the Hike

7. Plan a break after the first 20-30 minutes of hiking so people can have a designated time to adjust their packs. Planned breaks keep a group together. Let hikers know that if they are uncomfortable or in pain, it is worth stopping and fixing their problem before it gets worse. Spread hikers out so they can view their surroundings and not just the pack in front of them, but not too far. Set a ground rule that hikers must always be able to see the hiker ahead and the hiker behind them.
8. After the first hour, take a break and check in with everyone.
    a. How do they feel?
    b. How do they feel about their ability to hike and stay with the group? Check stats if possible and see the elevation change so they can get a sense of how they are doing and the time. This will help them plan future trips for themselves.
    c. Have everyone check for hot spots (places where blisters are about to form) and if someone has one, stop to put on moleskin to help prevent blisters.
9. Focus on a couple of trip best practices as you walk and discuss them with the participants.
    a. **Camp on durable surfaces**: Observe where there might be nondurable surfaces like rocks with lichen or rockfall. Observe where people may have taken shortcuts on the trail. Have participants think about what that might do to the trail and its stability if everyone were taking that path.
    b. **Leave what you find**: Notice some of the cool things on the trail like rocks, flowers, and animals. Think about the effects of removing those items from their current environment. Discuss the various implications.
    c. **Be considerate of wildlife**: Track all the types of animals and bugs you see on your hike. How might their behavior change if you were loud? How would it affect them if you fed them?

d. **Bathroom demonstration**: This can be done at camp but also as a longer break on a hike. Show how to dig a cathole and how far away it should be from water. Show WAG bags and how to use them, as well as any other waste management items.

Demonstrations at Camp

1. Evaluate Campsites
    a. Before setting up a campsite, go through the pros and cons of a few potential sites before picking the best fit. How far away is the site from water? Are there any animal trails we might disturb? Has someone camped here before? Are there durable surfaces for the tents? Will it fit our entire group? Are there any risks like ant hills and widowmakers? Widowmakers are trees or branches at risk of falling on a tent at night.
2. Determine Your Layout
    a. Set aside space to have tents apart from the kitchen and eating area. If you have a cleaning area for dishes and pots, make a third spot for that away from the kitchen and tents. Typically, these should be 100-300 feet apart with tents positioned upwind if possible.
3. Tent Setup
    a. You may choose to focus on putting up and taking down the tents a couple of times so everyone experiences different types of tents. Participants can try putting it up with one person vs two and see the difficulty.
    b. Go into deeper explanations of tents and proper setup. Explain the purpose of the different parts of tents and a footprint. Have everyone set up tents. Afterwards, have a brief discussion on what was easy and what wasn't. You should have another debrief in the morning of what they liked and didn't like about their tent.
4. Preparing Dinner and Cooking with a Stove
    a. Have everyone try different types of stoves. Participants can share different types of food to see what they do and don't enjoy if they are comfortable doing so.
5. Cleanup
    a. Give examples of minimizing water usage, like licking your own bowl. Show how to disperse cleaning water to reduce attracting animals by flinging it to spread it away from your camp area. Introduce a sump bag or cheesecloth to capture leftover food particles that are packed out.
6. Hygiene
    a. Dip dishes in boiling water to sanitize them or wash with camp soap and a ½ capful of bleach in a group pot or wash container. Set up a large water bag as a handwashing station with biodegradable soap or use hand sanitizer before preparing food.
    b. Demonstrate digging a 6-8" deep cat hole for human waste. Designate an area at least 100 feet away from the kitchen and tents for participants to use. Remind them how to use a WAG bag if using them on the trip.
7. Food Storage
    a. Show how to hang items from a tree. Discuss bear canisters and how some backcountry campsites have bear boxes. Discuss the importance of not letting animals associate humans with easy access to food, like crows, mice, and squirrels.

8. Campfire
    a. Show methods of starting a campfire if allowed in your hiking area. If campfires are not allowed, have a discussion on why they are not appropriate for the area, etiquette, and ways to leave camping areas as you found them.
9. Nature Breaks
    a. Give participants time to take in the natural world. This can be a 5-20-minute break where everyone finds a place to just see nature. The break can also be a time for reflection or journaling.

Evening Debrief

Debriefs establish healthy group communication and are important for positive group dynamics. Bring everyone together to review the day. What was their highlight? What was their low point? What is the best thing they learned? Each person can also set a goal for themselves or the group for the next day. At the end, review the plan and timing for the next day to keep everyone on the same page.

Morning Debrief

Take time to review the evening. What went well with the camping gear? Were the participants too hot or too cold? How comfortable were their sleeping pads? Did they need a pillow? What item or items did they not need? How were their tents? Did they use their WAG bag or dig a cat hole? This is a good time to remind participants how to use a WAG bag.

Packing Out

1. Pack up tents, sleeping bags, and mats. Packing them well is important and often more difficult than setting everything up. Make sure you have enough time in the morning.
2. Clean up trash and microtrash
    a. Be prepared to pack out all trash
    b. If camping on grass, fluff it back up to reduce signs of camping
3. Have final site inspections. Make sure that nothing is left behind.

Final Debrief and Pack Out

Everyone will be tired and most likely want to get back home. At the trailhead or on your last break, bring the group together for closure. Ask everyone to answer the following questions with one sentence each:

1. What did you enjoy most?
2. What was your biggest challenge?
3. What gear did you like most and why?
4. What will you do differently on your next backpacking trip?

Everyone also needs to go through their equipment to check it and return items that are not theirs before departing.

Dispose of human waste properly.

Notes

CAMPING AND BACKPACKING SCENARIOS

ABOUT

Brief Description

This section lists backpacking scenarios for participants to practice planning trips. Asking people to plan trips without scenarios usually results in them using a trip they have already done. Instructors need to pull participants out of their past experiences to think about planning trips for different groups and locations.

The first two scenarios are designed to get participants thinking about what to pack and only take a few minutes as group work. The second group of scenarios are designed for full trip planning and take longer.

Practicing planning a trip can happen in pre-trip meetings, mid-trip discussions, or possibly as homework if appropriate. Participants can plan out entire trips based on the scenarios if you have enough time. Alternatively, groups can be assigned individual scenarios and a section of the trip plan to work on, then discuss why they made the plans with the entire group. If you have very limited time or a group that is not experienced in planning trips, you can just have a discussion together using the scenarios as inspiration.

Pages have been formatted so that you can print each scenario type as a single page. Please note that prices were accurate in 2024 and may have changed by the time you use these scenarios. **Instructors should print copies of each scenario they want to use and give them to participants individually or in groups.**

Suggested questions for discussions:

- *If they planned an entire trip:* How long did it take you to plan the trip?
- *If they planned part of a trip:* How much time do you think it would take to plan the entire trip?
- What did you find the hardest to fill out? Was there a part that was hard to understand?
- *If planned in groups:* What part of the trip planning resulted in the most debate?
- What kind of input do or did you need from others for planning?
- Where would you find the information you need?
- How was planning for a large group different from planning for a smaller group like your family?
- How is planning for a place you know different from a place you don't know?
- How is planning for a group you know different from a group you don't know?

Packing Backpacking Scenarios

Scenario 1

One-night trip with a water source: A group of friends decided to backpack to the Arizona Hot Spring in November. The trip is an out-and-back with 5.9 miles round trip. The one-day weather forecast is 65°F during the day and 45°F at night. The Colorado River flows near the campsite. The group leader suggested that a port-a-potty is there, but there frequently isn't enough toilet paper. Lake Mead has advised travelers to pack everything out if someone needs to use the bathroom on the trail, including solid and liquid waste. Everyone has decided to bring freeze-dried food to keep things simple. What should each individual pack?

Gear List Answers (use to lead the discussion and evaluate group work):

- Backpack (50-60 liters)
- One person tent unless comfortable with sharing tents
- Inflatable sleeping pad with an R-value greater than 2
- Sleeping bag or quilt rated to 25-30 degrees
- Freeze-dried food
- A backpacking stove and fuel
- First aid kit
- Filtered water pump

Scenario 2

One-night trip at a dry campsite: Marcus, Abdul, and Keisha are planning a trip to Charleston Peak in July. Keisha invited three friends who have never gone backpacking. Marcus is the organizer of the backpacking trip. He advised Keisha to invite her friends over to do a pre-trip meeting to discuss what gear is needed. The 16-mile trip starts at an elevation of 7,000 ft and the summit is at 11,900 ft for a gain around 4,900 ft. They hope to camp near the summit. There are no water sources along the hike. Everyone decided to take this trip to escape the heat and watch a meteor show. Keisha's friends Jane, Max, and Phoenix have hiked with Keisha many times. They feel they are ready to explore another outdoor recreation activity like backpacking. They plan on renting their gear before they decide on making purchases. Jane's torso measurement is 16", Max's is 18.5", and Phoenix's is 17". Marcus believes he has universal packs that will fit them. Keisha and Jane are planning on sharing a two-person tent.

What should Keisha pack?

- Backpack (55-65 liters)
- One person tent unless comfortable with sharing tents
- Inflatable sleeping pad with an R-value greater than 2
- Sleeping bag or quilt rated to 25-30 degrees
- A backpacking stove and fuel for food that needs to be cooked or requires boiled water
- Freeze-dried food or food that will survive the heat of the day until eaten
- Matches and a lighter
- First aid kit
- Water: How much should she bring? How should she bring it?

Would the packing list change if it were a three-day or five-day trip?

Backpacking Scenarios for Full Trip Planning

Scenario 3

Dispersed camping trip

Mike organized a dispersed camping trip and hike for him and his three friends Shelly, Marie, and Desi. The trip involves a 4.5-hour drive to their destination. Instead of using an established campground, the group opted for dispersed camping managed by the Bureau of Land Management (BLM). The campsite has room for a couple of tents. The nearest bathroom is at a store 15 miles down the road. There is no fire ring and there is a fire restriction in place. The weather is forecasted to be clear with temperatures dropping to 50°F. Everyone is bringing freeze-dried food for their meals. The group plans to hike to the highest point in Nevada on the Boundary Peak Trail. It is a hard out-and-back trail 7.0 miles long with an elevation gain of 4,215 ft. Mike is using a map to navigate the hike.

What gear would you suggest to the group?
What options would you consider for a fire since there is a fire restriction?
What type of stove and sleeping bags would you recommend?
What Ten Plus Essentials would you suggest?

Scenario 4

A group of 18 close friends decided to plan a weekend three-day-two-night trip to Red Rock Campground in November. The group is getting together to climb Red Rock. Aisha is the group coordinator responsible for planning the trip. She started trip planning in August to secure a campsite. In her trip planning, she visits recreation.gov to reserve the campsite. The cost for the campsite is $60 a night. She researched the weather online and saw that it is typically around 85°F during the day and in the low 50s at night. In her trip planning, she learned that there are at least three people in the group with CPR certification. She will ask them ahead of time to help in the event of an emergency, hoping that at least two people will agree. A bundle of wood is $6.99. The group will need 8 bundles of wood. Everyone will be asked to chip in $20 for groceries.

Backpacking Checklist

This checklist is in the participant manual.

This is an extensive list of items you should bring on a backpacking trip. This will adjust to experience, gear weight, preference, and physical capabilities.

Backpack Gear

- ☐ Backpack (typically 50-80 liters)
- ☐ Sleeping bag or backpacking quilt
- ☐ Sleeping pad
- ☐ Pillow
- ☐ Rain protection for inside the backpack (trash bag or waterproof stuff sac)

Kitchen

- ☐ Lightweight stove & fuel
- ☐ Cookpot & lid
- ☐ Lighter & backup fire starter
- ☐ Eating utensils
- ☐ Cup or mug
- ☐ Biodegradable soap
- ☐ Cloth for cleaning
- ☐ Bear canister, food bag, or hang bag & 50 ft nylon cord

Food & Water

- ☐ Water bottles (plastic ones are lighter than traditional water bottles)
- ☐ Water filtration or purification (primary & secondary options)
- ☐ Meals (aim for 2500-3000 calories per person)
- ☐ Energy food and drinks (trail mix, salt replacement, or bars)
- ☐ Collapsible water container

Navigation

- ☐ Map
- ☐ Compass
- ☐ GPS
- ☐ Satellite messenger or personal locator beacon or both

Health & Personal Items

- ☐ Toilet paper & Ziploc to carry out used tissue
- ☐ Digging trowel
- ☐ Hand sanitizer
- ☐ Prescriptions
- ☐ Contact lenses
- ☐ Menstrual products
- ☐ Toothbrush, toothpaste, & floss
- ☐ Chap stick
- ☐ Earplugs
- ☐ Sunscreen

Clothing (Weather & Area Dependent)

- ☐ Hiking pants or shorts
- ☐ Wicking shirt, tank top, long-sleeve shirt for sun and bugs
- ☐ Quick-dry underwear (at least 2)
- ☐ Down jacket or fleece jacket
- ☐ Rain wear (jacket and pants)
- ☐ Base layers
- ☐ Shoes suited for terrain
- ☐ Socks (hiking & sleeping) (synthetic or wool)
- ☐ Hats or beanies (warmth or sun protection)
- ☐ Sunglasses
- ☐ Gloves
- ☐ Bandana (for washcloth, emergency use, or sun protection)
- ☐ Head net for mosquitos (note: pre-treat clothing with permethrin bug repellent)
- ☐ Gaiters (rainy, snowy, muddy conditions)
- ☐ Sandals (water crossing or camp shoes)

Emergency Kit
☐ Whistle
☐ Black marker
☐ Duct tape or other repair tape
☐ Sleeping pad patch kit
☐ Super glue
☐ Needle & thread
☐ First aid supplies (include moleskin, antihistamines, anti-diarrheal medicine, gauze pads, medical tape, antibiotic ointment, & athletic tape)
☐ Itinerary left with a friend & in your car
Tools
☐ Light pocketknife or multitool
☐ Headlamp & extra batteries
☐ Power bank & charging cords, wall plug if needed
☐ Assorted Ziploc bags
☐ Cash, ID, credit card, insurance card, & permits
Other
☐ Bear spray (in grizzly country)
☐ Camera
☐ Cards and camp games
☐ Trekking poles
☐ Phone
☐ Day pack
☐ Waterproof pencil

EXAMPLE BACKPACKING TRIP FORM

Trip Name

Charleston Peak South Trail

Trip Location

1208 Cathedral Picnic Area Rd, Mt Charleston, NV 89124

Trip Purpose and Objectives

Enjoy cooler temperatures in the summer and camp

Trip Leader 1 Name Jeni Scout	**Cell Phone #** 1-702-333-3333
Trip Leader 2 Name Tyler Hyke	**Cell Phone #** 1-702-555-5555
Trip Emergency Contact Friend Smith	**Cell Phone #** 1-702-444-5555

Checklist

- ☐ Permits Printed or Saved
- ☐ Weather Links sent to participants
- ☐ Driving Directions sent to participants
- ☐ Map or topo info sent to participants
- ☐ Additional resource info shared
- ☐ Prepare and pack food
- ☐ Pack items from backpacking checklist
- ☐ _____
- ☐ _____

LIST OF VEHICLES

Tyler's Expedition

Jeni's minivan

RESOURCES

https://www.alltrails.com/trail/us/nevada/charleston-peak-south-trail

https://www.gomtcharleston.com/mount-charleston-national-recreation-trailsouth-loop/

WEATHER REPORT (update morning of trip)

Low 53, High 81, cloudy, 5% rain
Check morning of trip at

https://mtcharlestonweather.com/go-mt-charleston

TRIP ITINERARY

Date 7/19/2025

TIME	ACTIVITY	LOCATION AND NOTES
DAY 1		
9:00 am	Departure	Jeni's house (xxxx 4th St, Las Vegas)
9:15-9:45 am	Driving	Charleston Peak South Trailhead
10:00-10:30 am	Organize gear	Trailhead
10:30-12:00	Hike	Goal of 2-3 miles
12:00-12:30 pm	Lunch	Trail
12:30-4:00 pm	Hike	Goal of 3-5 miles depending on group
4:00-6:00 pm	Set up camp and downtime	Cooks need to prep for dinner at 5pm
6:00-7:00 pm	Dinner	Family style dinner and clean up
7:00-8:00 pm	Group game	Play cards or games like Assassin that don't require anything
8:00-10:00 pm	Campfire with group day debrief	Tell stories
DAY 2		
8:00-9:00 am	Breakfast, put away camp gear for the day to protect gear from wind and animals	Cooks need to prep at 7:30am and put our lunch out for individuals to pack for the day
9:00-12:00 pm	Finish hike to peak	Last couple of miles is hard; make time to enjoy the view at the top
12:00-12:30 pm	Lunch break at peak	
12:30-5:30 pm	Hiking down	Plan to be back at cars no later than 6 pm
5:30-6:00 pm	Pack gear into cars	If finished at 6pm, group goes into town for pizza

SAFETY MANAGEMENT PLAN

Address and Phone # of Hospitals (along the way and nearest to destination)

Centennial Hills Hospital (702) 835-9700
6900 N Durango Dr.
Las Vegas, NC 89149

Name & Phone # of Search and Rescue (County Sheriff)

Las Vegas Metro and Search and Rescue: Call 911 if it's an emergency.

List of Participants with First Aid Training (and their level of training)

Jeni has CPR and first aid

Checklist

- ☐ Communication Device or Plan (other than the leader's cell phone)
- ☐ Liability/waiver form for organization
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Emergency Response Steps

1. STOP and assess
2. Provide care to the injured based on your training
3. Decide if an evacuation is needed and make a plan
4. Communicate with:
   - Other Participants
   - Search & Rescue
   - Medical Assistance
   - Emergency Contacts
   - Your Organizations

TRIP BUDGET

Expense	Amount	Notes
Transportation	$50	Gas
Food	$200	Food for three days, $10 per person per day
Permit	NA	
Supplies/Gear	$90	First aid kit and WAG bags
Total	$340	
# of Participants	10	
Cost per Participant	$34	

TRIP ROSTER

Name (role)	Contact #	Emergency Contact	Emergency Contact #	Health Considerations & Signs of Issues
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

TEN PLUS ESSENTIALS PACKING LIST

Navigation: Map, Compass, & GPS System	
	Everyone has Gaia downloaded with the area downloaded for using offline Jeni and Friend both have compasses and topo maps of the area

Sun Protection: Sunglasses, Sunscreen, & Hat	
	Bottle of SPF 30 Hat Sunglasses Sunshirts

Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear	
	Fleece Jacket and rain jackets in case chance of rain increases

Illumination: Flashlight, Lantern, & Headlamp	
	Headlamp with extra batteries

First Aid Supplies	
	First aid kit for group and small personal ones for blisters

Fire: Matches, Lighter, & Firestarter	
	Lighter and matches plus 3 backpacking stoves and isobutane canisters

Repair Kit and Tools: Duct Tape, & Multi-tool	
	Duct Tape and Tyler has a multi-tool

Nutrition: Food Makes All the Difference	
	See meal plan Participants are bringing their own snacks and electrolytes for two days

Hydration: Water & Water Treatment Supplies	
	Camelback 32 oz Two extra bottles (24 oz each) Each participant also has a water filter for emergency use

Shelter	
	Tents and Emergency blanket for hike to peak

Disposing of Human Waste	
	Use outhouses at trailhead and then WAG bags on the trail

Sample Food Plan Form

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
1	On own	Turkey wraps (wrap tortillas, turkey, mustard, mayo, coleslaw)	Ramen noodles	Apple and bars	Chips and salsa	Baked goodie	Pack as is in cooler and food box
2	Bagels, cream cheese, apples, bananas, oranges	Sandwiches (turkey, ham, sliced cheese, mustard, mayo, spinach, red pepper), Pringles	Calabacitas (squash, corn, black beans, onion, sweet potato, tortillas, green chili, shredded cheese, garlic, oregano)	Oranges and bars	Caprese (tomatoes, mozzarella slices, balsamic vinegar)	Cookies	Make and freeze calabacitas, put remainder in cooler and food box

Options for Additional Meals

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
3	Vanilla yogurt, granola, muffins	Pitas, hummus, tabouli, tomatoes, cucumbers, summer sausage	Rice, sausage, veggies (minute rice, turkey sausage, red pepper, cherry tomatoes, onion, pesto)	Apples and bars	Oreos	Jell-O pudding	Pack as is in cooler and food box
4	Breakfast burritos (eggs, hash browns, salsa, tortillas)	PB & J (bread, almond butter, peanut butter, strawberry jam, grape jam)	Pesto, pasta, zucchini, red pepper, and sun-dried tomatoes	Dried fruit and bars	Goldfish	Oreo pie	Make and freeze eggs and potatoes, box and cooler for the rest

FREQUENTLY USED INFORMATION

- **Ten Plus Essentials**
- **Trip Best Practices**
- **Blank Trip Form**

TEN PLUS ESSENTIALS

1. Navigation: Map, Compass, & GPS System

Navigation systems are used before your trip when planning your route. You use them during your trip when you need help orienting yourself in your surroundings.

Know how to use a topographical or relief map as well as your compass or GPS unit before going out.

2. Sun Protection: Sunglasses, Sunscreen, & Sun Hat

Sun protection is necessary to protect your skin and eyes from UV rays that can cause sunburn and skin cancer.

Consider wearing sunglasses, sunscreen, and hats. Sun-protection clothing such as pants and long sleeve shirts can also help minimize your exposure to the sun.

3. Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear

Nature is unpredictable. Be prepared for sudden changes in weather conditions.

Pack an extra layer of clothing that reflects the most extreme weather conditions you could encounter.

4. Illumination: Flashlights, Lantern, & Headlamp

You will need to bring your own lighting for many outdoor adventures.

Flashlights, lanterns, and headlamps are great options. Headlamps are preferred because you don't need your hands to use them. Be sure to pack extra batteries.

5. First Aid Supplies

Be prepared for emergencies by packing first aid supplies with you.

Start with a pre-made kit and modify it to fit your trip and medical needs. Check the expiration date on all items and replace them as needed.

Consider including an emergency guide in case you are faced with an unfamiliar medical emergency.

6. Fire: Matches, Lighter, & Firestarter

Fire can be an emergency signal and a heat source for cooking and staying warm.

Pack matches (preferably waterproof) and fire starters (items that catch fire quickly and sustain a flame, like a lighter).

Familiarize yourself with the fire use regulations of your park before heading out.

7. Repair Kit & Tools: Duct Tape, & Multi-tool

Carry a basic repair kit with you to help repair equipment. The kit should include items such as duct tape, a knife, and scissors.

Consider packing a multi-tool, a compact version of many tools that can include a knife, screwdriver, can opener, and more.

Be sure to bring any tools specific to your trip and your activity.

8. Nutrition: Food Makes All the Difference

You should always be prepared for possible changes to your trip plans. Pack an extra day's supply of food.

No-cook items that have good nutritional value will keep your energy high without much effort.

Salty and easy-to-digest snacks like trail mix, nuts, and granola bars work well for outdoor activities.

9. Hydration: Water & Water Treatment Supplies

Staying hydrated on your trip is of utmost importance!

Physical activity increases your risk of dehydration, which can lead to negative health consequences. Dehydration is a loss of water and forms of salt from the body.

If you're active outdoors, especially in hot weather, you should drink water often and before you feel thirsty. Prepare your water before you need it and do not allow yourself to become dehydrated.

Before heading out on your trip, be sure to identify if there are bodies of water at your destination you could collect water from. Remember to treat your water using water treatment supplies.

10.Shelter

Shelter is one of the most important elements during an emergency survival situation. It can protect you from severe weather conditions and exposure to the elements.

A tent, tarp, bivy sack, or emergency space blanket are all lightweight options for emergency shelter.

ESSENTIAL PLUS+

Disposing of Human Waste

As outdoor spaces are being used more and more, it is critical for the public to be better equipped to dispose of human waste on public lands.

If there is not a restroom, please take a "WAG bag." This is a disposable toilet kit with waste treatment powder or gel, toilet paper, and hand sanitizer. They are easy to use, sanitary, and easy to dispose of in a trashcan when you return from your trip.

You should also learn how to dig catholes, where to dig them, how to pack out used toilet paper, and about alternatives like backpacking bidets.

Ten Essentials list from https://www.nps.gov/articles/10essentials.htm

Trip Best Practices

1. Plan ahead & prepare. (See Trip Form)

This includes:

- Trip purpose
- Trip location and itinerary or schedule
- Trip leaders and their contact information
- Permit requirements
- Weather report
- Safety management
- Equipment list
- Trip budget
- Trip participant list and their emergency contacts

2. Camp & travel on durable surfaces.

Camp in campsites that are already made or on surfaces that resist trampling.

- Durable surfaces: rock, sand, gravel, snow, trail, and grass.
- Non-durable surfaces: moss, wildflowers, wetlands, steep slopes, cryptobiotic soil.
- Stick to existing paths to keep the environment neat and healthy.

3. Dispose of waste properly.

Use provided trash cans and dumpsters at campgrounds and trailheads.

- On busy weekends, trashcans and dumpsters can be full. Bring heavy duty garbage bags in case you need to take your garbage home with you.
- Do not burn trash unless it can completely burn in your fire. Remove and properly dispose of anything that doesn't fully burn.

Pack it in, pack it out.

- Do a sweep of your camp to make sure there is no litter, food, or trash behind---even if it isn't yours.
- Do not let trash blow away—animals become campground pests if they find food there.

4. Dispose of human waste properly.

Use trailhead outhouses to minimize what you must pack out.

- Don't throw trash into latrines. They are emptied using a pump system. Trash must be manually removed with great expense and difficulty.
- Do not leave any trash or human waste within 200 ft of waterways.
- Deposit solid human waste in catholes dug at least six inches deep and at least 100 ft away from trail and camp. Cover and disguise the cathole afterwards.
- Pack out toilet paper and hygiene products. This can be done with a zippered plastic bag and duct tape.
- In popular areas, canyons, or alpine areas please use a wag bag and pack out your human waste.

5. Minimize campfire impacts.

Use camp stoves instead of campfires.

If using a campfire, use existing fire rings.

- Do not build fires near stone or areas that will create fire scars. Remove all signs that a fire existed.
- Be aware of restrictions. Many national parks restrict fires.

6. Leave what you find.

Take photos of plants and cultural artifacts instead of taking the objects themselves.

- This helps others be able to enjoy them as well.
- Avoid introducing or transporting non-native species.
- Do not build structures, furniture, or dig trenches.

7. Be considerate of wildlife & people.

Watch wildlife from a distance.

- The recommended distances are:
    - around 25 yards for small animals
    - around 100 yards for large animals

The “rule of thumb” is a helpful tool for estimating distance for viewing animals.

- You should be far enough away that your thumb totally blocks your view of the animal if you extend your arm and look at the animal.

8. Recognize the needs of your group.

Consider the age, abilities, and experience of the group when planning an activity.

- For example, consider sharing gender assigned bathrooms if you have a large group to save valuable packing time or daylight.

9. Familiarize yourself with the policies of the land you are visiting.

Agencies have different policies on groups, camping, permits, and so on.

- Often state and federal lands cross over with tribe lands which can have unique policies as well. Find out if you will be visiting a tribe’s land and read their policies for visitors.
- State and federal agencies follow different laws. Be sure to comply with them to the best of your ability.

Examples:

- Cannabis is illegal federally and is illegal on any federal land, even if that land is in a state that has legalized it.
- Vaping and smoking indoors is illegal in Utah and California with limited exceptions, and it is prohibited in federal buildings.
- Nevada bans guns in state parks unless they are unloaded in a vehicle or on a concealed carry permit holder. Firing a gun is illegal even in self-defense. National parks allow open carrying but defer to state laws regarding concealed-carry.
- Alcohol is generally allowed away from vehicles and outside of buildings.

TRIP FORM

Trip Name

Trip Location

Trip Purpose and Objectives

Trip Leader 1 Name	**Cell Phone #**
Trip Leader 2 Name	**Cell Phone #**
Trip Emergency Contact	**Cell Phone #**

Checklist

- ☐ Permits Printed or Saved
- ☐ Weather Links sent to participants
- ☐ Driving Directions sent to participants
- ☐ Map or topo info sent to participants
- ☐ Additional resource info sent to participants
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

LIST OF VEHICLES

RESOURCES

WEATHER REPORT (update morning of trip)

TRIP ITINERARY

Date

TIME	ACTIVITY	LOCATION

SAFETY MANAGEMENT PLAN

Address & Phone # of Hospitals (along the way and nearest to destination)

Name & Phone # of Search and Rescue (County Sheriff)

List of Participants with First Aid Training (and their level of training)

Checklist

- ☐ Communication Device or Plan (other than the leader's cell phone)
- ☐ Liability/waiver form for organization
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Emergency Response Steps

5. STOP and assess
6. Provide care to the injured based on your training
7. Decide if an evacuation is needed and make a plan
8. Communicate with:
   - Other Participants
   - Search & Rescue
   - Medical Assistance
   - Emergency Contacts
   - Your Organization(s)

TRIP BUDGET

Expense	Amount	Notes
Transportation		
Food		
Permit		
Supplies/Gear		
Total		
# of Participants		
Cost per Participant		

TRIP ROSTER

Name (role)	Contact #	Emergency Contact	Emergency Contact #	Health Considerations & Signs of Issues
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				

TEN PLUS ESSENTIALS PACKING LIST

Navigation: Map, Compass, & GPS System	**Sun Protection: Sunglasses, Sunscreen, & Hat**
	
Insulation: Jacket, Hat, Gloves, Rain Shell, & Thermal Underwear	**Illumination: Flashlight, Lantern, & Headlamp**
	
First Aid Supplies	**Fire: Matches, Lighter, & Firestarter**
	
Repair Kit and Tools: Duct Tape & Multi-tool	**Nutrition: Food Makes All the Difference**
	
Hydration: Water & Water Treatment Supplies	**Shelter**
	
Disposing of Human Waste	
	

Sample Food Plan Form

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
1							
2							

Options for Additional Meals

Day	Breakfast (groceries)	Lunch (groceries)	Dinner (groceries)	Morning Snack	Afternoon Snack	Dessert	Prep
3							
4							

APPENDIX A: GLOSSARY

This section provides a list of terms and definitions. Diagrams of items can be found in their respective modules.

Organizations and their initialisms

Bureau of Indian Affairs (BIA)
Bureau of Land Management (BLM)
Bureau of Reclamation (BoR)
Fish and Wildlife Services (USFWS)
International Grizzly Bear Committee (IGBC)
National Park Services (NPS)
- Outdoor Recreation Leaders Program (ORLP)

Sierra Interagency Black Bear Group (SIBBG)
- Southern Nevada Area Partnership (SNAP)

United States Forest Services (USFS)
United States Geological Survey (USGS)

Vocabulary

3-season tent: A tent designed for spring, summer, and autumn. They tend to be light and fine for most uses. 3-season tents have more mesh and airflow making them better for warmer temperatures.

All season tent (or 4-season tent): A tent designed to handle strong weather including heavy rain, wind, and snow and generally have less mesh and are warmer than 3-season tents.

Base weight: The total weight of all non-consumables in your pack, including the pack itself. This excludes food, water, and fuel (but not fuel containers). Typical backpacker base weight is 25-30 lbs., lightweight backpacker base weight is generally 10-20 lbs., and ultralight is under 10 lbs. Reaching a base weight of under 10 lbs. requires specialty gear that is typically very expensive and leaving behind items many backpackers feel are essential.

Bathtub: The waterproof floor of a tent that is designed with raised edges, typically a few inches high, to prevent water from entering the tent.

Burner: The part of the stove where the fuel and flames come out.

Bivvy: (aka Bivy) This term is short for bivouac shelter. A small shelter that is functionally a waterproof layer for a sleeping bag. Historically these were lighter than tents, but that is generally no longer true. The term is also used for lightweight disposable emergency shelters made from mylar or a similar material. They are similar to emergency blankets, but resemble a sleeping bag in design.

Capacity: The volume of space in the packs, typically measured in liters. Some manufacturers include large external pockets in their estimate of capacity, so read product details carefully for internal capacity.

Cardiopulmonary Resuscitation (CPR): An emergency life-saving procedure that combines chest compressions and artificial ventilation to maintain circulatory flow and oxygenation in a person who has suffered cardiac arrest.

Cathole: A hole dug for solid human waste in the wilderness. Catholes should be at least 6" deep and at least 100 feet away from trail and camp. Cover and disguise a cathole after use.

Closed cell foam: The foam equivalent of an egg carton with the foam protected by an outer coating that may add some insulation.

Daisy chains: Term used to describe straps sewn into a series of loops instead of lying flat. Can be used to attach items to the pack.

Dispersed camping or backcountry camping: Camping in undeveloped areas outside of designated campgrounds, often in remote or wilderness locations. This type of camping usually involves setting up a tent or other shelter without amenities such as running water, toilets, latrines, or established fire pits.

Down insulation: A natural material that comes from the soft, fluffy plumage of ducks, geese, and other waterfowl. Traps air to prevent heat loss. Lightweight and breathable. Loses insulation properties when wet. Some down is treated to repel water, but it can still lose insulation properties. It is often used for sleeping bags and jackets.

Dry campsite: A campsite that doesn't have access to water.

Durable surfaces for camping: Surfaces that resist tramping and don't take much damage from camping. Examples include rock, sand, gravel, snow, trail, and grass.

External frame packs: Older backpack technology that isn't common today. It has a visible metal frame with the pack on one side and straps on the other. These can carry heavier loads, provide better airflow to your back, are less expensive than internal frame packs, and have many attachment locations for items on the exterior. They tend to be heavier and stick out from your body which can be uncomfortable, restrict head movement, and make it difficult to pass through tight spaces.

Fill Power: How lofty or fluffy insulation filling is. Higher fill power means insulation is loftier and warmer at a lower weight.

Fire blanket: A blanket made of fire-resistant materials used to smother flames.

Fire starter: A tool or material used to help ignite a fire more easily. Fire starters are designed to catch fire quickly and burn hot enough to ignite larger pieces of fuel like wood or charcoal. They come in various forms, including chemical fire starters, wax-coated sawdust, or natural materials like fatwood and may supplement or replace tinder (see below).

Frameless packs: These packs are backpacks with shoulder straps and often a hip belt. These are exceptionally lightweight but are missing many features of heavier packs. They don't tend to have as many organizational pockets, padding for the back to protect from hard objects, ventilation for the back, or the ability to transfer weight to the hips. They require careful packing and cannot carry the same weight as more structured packs even if there is capacity for more items. These packs are popular with ultralight backpackers.

Freestanding tent: A tent with support poles that can maintain its shape without being staked down.

Frontcountry camping: Camping in established campgrounds that are easily accessible by vehicle, typically offering amenities like restrooms, picnic tables, fire rings, and sometimes even electrical hookups. Frontcountry campsites are often located near roads, parking lots, and recreational facilities, making them more convenient and less rugged than backcountry or dispersed camping. They can also be called **developed campsites**.

Fuel Regulator: The knob that controls the fuel flow out of the burner.

Gas regulator: Controls the amount of fuel pressure that feeds into a Coleman-style stove.

Global Positioning System (GPS): A navigation system using satellites developed by the Department of Defense for military use in the 70s. It is now managed by the National Executive Committee for Space-Based Positioning, Navigation and Timing (PNT) since most users are no longer military.

Ground cloth (or Footprint): A sheet of fabric that goes underneath your tent. It provides extra protection for the bottom of your tent and can keep it dry when the ground is damp. It is less expensive to replace a ground cloth than an entire tent. Ground cloths may attach to a tent, be made for a specific tent model, or be an inexpensive tarp. Ones for specific models are called footprints.

Guylines: A cord used to tie down a tarp, tent or rainfly using stakes. They keep the rainfly away from the tent to prevent leakage. They also create stability against high winds or snow.

Hang bag: A bag that keeps food up and off the ground outside your tent. Often counterbalanced by a bag weighted with rocks. These are often not allowed in places with bears and should be well sealed to prevent animals and birds from dropping into them from above. May also be called a food bag. These generally hang from hardware that is different from the hardware used to close the bag.

Haul loop: A loop at the top of the bag for lifting. You should always use a haul loop to lift a backpack and never the shoulder straps.

Hip belt: The main way packs transfer weight to the hips. A properly fitted hip belt will put about 80% of the pack weight on your hips. The shoulder straps of bags with hip belts are largely designed to help the pack stay in position on your body so the weight sits on your hips instead of your shoulders. Some hip belts pivot with your body to reduce pack movement when you hike. Some companies make accessory pockets that can be added to hip belts. Padding on hip belts varies between brands and some brands fit bodies differently. Try on several packs with weight in them to find what works for you. Some companies use materials that can be molded to your personal shape using heat. Work with a certified person in-store to get the best results.

Hydration sleeve: A pocket in some packs that isolates a hydration bladder from the rest of the pack. Some pockets are positioned for bladder access without opening the pack. Others are fully inside the main compartment. These sleeves may feature a clip for hanging the bladder so it doesn't get compressed at the bottom of the bag. Many backpackers prefer water bottles to hydration bladders because bottles are easier to access and the water level can be seen easily.

Inflatable pad: A pad that requires you, or a pump, to get air into it.

Internal frame packs: Newer back technology with thinner and lighter support frames entirely inside the pack. These packs are designed to have a smaller profile and move with the hiker's body, making it easier to navigate rough terrain and tight spaces. They weigh less than external frame packs but cost more and have fewer spots for attaching items. The structure transfers weight to your hips reducing fatigue and back strain. Many offer some amount of ventilation for the back, but not all, which can make hot and humid weather uncomfortable.

Isobutane fuel canister: Canister for camping stoves filled with isobutane. They are lighter than propane canisters and have more energy for their volume. Use only with isobutane stoves.

J-straps and S-straps: Versions of the shoulder straps of a backpack based on their shapes. J-straps are more common and appear to come straight down from the top of the backpack and then curve to attach to the bottom of the pack. S-straps were designed for men with larger chest muscles and women and curve out at the chest to create extra room.

Kevlar bag: A bag designed to hold up to bear claws. Lighter and easier to pack than canisters. Not approved at all bear locations. Small animals can chew holes through Kevlar.

Kindling: Small combustible material used to help logs catch fire and burn. Kindling is typically materials like twigs, small sticks, and dry leaves.

Latitude: Degrees measured from the equator (0°) to the poles (90°). Latitudes north of the equator may be indicated as north or with a positive number. Latitudes south of the equator may be indicated as south or with a negative number.

Latrine: A simple outdoor toilet, often a pit or trench, used in remote or undeveloped areas. Also called a pit toilet.

Lid (also known as the Brain): A top compartment in some packs. These sit over the main compartment to provide additional storage. Some are removable and some have straps to turn into a fanny pack.

Load lifter straps: Small straps at the top of the backpack that connect the main compartment with the shoulder straps. They help pull weight off shoulders and should be angled around 45°. Often missing on inexpensive and ultralightweight packs.

Longitude: degrees measured east and west of the Prime Meridian in Greenwich, England. The Prime Meridian is 0°, with longitude going up to 180° east and west where they meet on the other side of the planet.

Microtrash: Small pieces of litter, such as cigarette butts, plastic bits, and food wrappers, that are often overlooked but can harm the environment.

Mummy sleeping bag: A sleeping bag that is tapered to fit your body snugly. Faster to warm up and lighter than rectangular sleeping bags. Include a hood to keep your head warm. Some find them constraining or claustrophobic.

Non-durable surfaces for camping: Surfaces that are dangerous for camping or are damaged easily. Examples include moss, wildflowers, wetlands, steep slopes, and cryptobiotic soil.

Non-freestanding tent: A tent that requires staking to have any shape at all. Some utilize hiker trekking poles for support.

Out-and-back hike: A hiking trail that begins and ends at the same location, connecting two points like a trailhead and a destination.

Personal Locator Beacon (PLB): A device that uses a satellite connection to call for help. These may only function to contact search and rescue or may have additional capabilities including messaging personal contacts.

Piezo Igniter: The part of the stove that sparks to ignite the fuel. Also available as a separate tool.

Pop-up tent: A tent with built in poles that can be set up quickly and easily. This term may be used to describe tents with built-in telescoping poles, or those with tensioned wire rings similar to some windshield shades.

Pot Support: A structure that supports a pot above a burner.

Propane fuel canister: Canister for camping stoves filled with propane. They are heavier than isobutane canisters but fit more common tent camping stoves. Use only with propane stoves.

R-value: A measurement for insulation. The higher the value, the better the insulation. Values below 2 are only suitable for warm weather. Values from 3-4 appear to be most popular, but values can go above 10.

Rain cover: Protects backpack from rain. Backpacks are generally not waterproof. Some packs come with rain covers but others need to be purchased separately. An inexpensive alternative to a rain cover is to use a high-quality trash bag to line your backpack. Your pack will get wet and heavier, but your gear will stay dry.

Rainfly: A waterproof cover that fits over the roof of the tent. It can be used for rain or for additional warmth. It also reduces condensation inside the tent from people breathing inside as the condensation will form on the rainfly instead of the tent.

Rat bag: A chainmail type bag that is much harder for small animals to chew through. These are heavier than regular hang bags. The food inside can be squashed by larger animals if it is not hung up.

Self-inflating pad: A pad that has a valve that will allow air to enter the pad automatically when it is open. These pads must be stored inflated to function properly and may require a little air from your breath or a pump to fully inflate.

Semi-freestanding tent: A tent that will stand without stakes, but not have its full shape. Often a few stakes will make it fully supported. These are sometimes called freestanding by manufacturers.

Shroud: A part on a Jetboil-style stove made of plastic that allows you to safely hold the burner without injury. This is an insulted layer around the pot.

Sleeping quilt: A blanket shaped like a mummy bag but missing the part you lay on and hood. Some are closed at the bottom while others are open. Less common than other bag types and often more expensive. People sleep on sleeping pads directly with the quilt wrapped around them. Lightweight but still warm. Flexible for temperature because they can be thrown off like a blanket.

Stakes: Stabilizers for tents that are similar to large nails. They come in a variety of materials, shapes, and sizes. Should be considered a required part of pitching a tent. They prevent the tent from moving in windy or stormy weather. Stakes may be required to keep the rainfly off the main tent or to add ventilation.

Sternum straps: Small straps that run between the shoulder straps across the sternum or chest to stabilize the pack when hiking. These straps help stabilize the bag while hiking. Sternum straps should be adjusted to about an inch below the collarbone. They should be tightened to avoid slack, but not restrict movement and breathing.

Temperature control knob: Controls the height and heat of a flame on a Coleman-style stove.

Tinder: Smaller combustible material used to ignite a fire. Once ignited, tinder burns rapidly and provides the initial heat needed to ignite kindling, which then helps build a larger, sustained fire.

Topographical map: A map with lines that show elevation.

Trailhead: The starting point or entrance of a hiking trail, often marked with signs or maps.

WAG bag (Waste Alleviating Gel bag): A resealable plastic bag with waste alleviating gel inside. Used to carry solid human waste out of wilderness areas.

Widowmakers: Dead, loose, or broken branches or debris in trees that could fall and harm those below.

Wilderness First Aid (WFA): A specialized type of first aid focused on providing medical care in remote or outdoor settings where professional help may be delayed.

Wilderness First Responder (WFR): A trained individual certified to provide advanced medical care and emergency response in remote or wilderness settings, often acting as the primary medical provider until professional help arrives.

Wind shield: Foldable walls for a stove that help block wind.

APPENDIX B: BASIC GEAR GUIDE

The purpose of *Backpacking Gear Basics* is to serve as a show-and-tell discussion guide, helping participants understand the gear needed for backpacking and make informed choices based on their goals, destinations, and budgets.

Tents

Activity: Show and compare different types of tents. Hold a discussion about participants' prior experience with tents. Have the group practice pitching tents of various styles. As an optional activity, consider holding a race to see who can pitch a tent the fastest, especially if you have several tents requiring similar effort.

Tent Poles and Standing:

It is wise to visit the campsite (if possible) so you can determine what kinds of tents will work best. Very hard or rocky ground can make freestanding tents essential.

- **Freestanding**: Poles fully support the tent's shape without the need for stakes.
- **Semi-freestanding**: The tent can stand without stakes but won't achieve its full shape. Adding a few stakes typically provides full support. Manufacturers sometimes label these as freestanding.
- **Non-freestanding**: Requires staking to maintain any shape. Without stakes, these tents are generally unusable. (Skip this type of tent for a beginning class.)
- **Pop-up tents**: These tents are typically too heavy and/or bulky for backpacking purposes. They may feature built-in telescoping poles or tension wires that allow them to "pop-up" into freestanding tents when unfolded. While they can simplify camp setup for groups, telescoping poles are prone to breaking, and wired designs tend to perform poorly in windy conditions.

Seasons:

3-season: Designed for mild weather and not suitable for cold weather, extreme conditions, or snow. These tents are typically lighter and ideal for most uses. With more mesh for increased airflow, they perform well in warmer temperatures.

All season: Built to withstand extreme weather, including snow and heavy rain. These tents have little to no mesh, making them better at trapping body heat in cold temperatures.

Walls: This term refers both to the sides of a tent and whether it includes a separate rainfly. Tents with a separate rainfly are called two-wall tents, while those with solid fabric and sewn-on doors that cover mesh sides are single-wall tents. A separate rainfly adds weight to the tent but often helps reduce condensation inside.

Sizing:

Tents are sized based on the number of people they can accommodate. This rating is based only on the footprint you take up laying down with a small sleeping pad and bag. It assumes each person occupies the space of a sleeping pad and bag, making it fairly accurate for backpacking purposes. However, you may need a larger tent if you plan to store your gear inside the tent instead of in the vestibule or if you are hiking with a dog. Additionally, tall individuals should check the tent's length, especially with tents that have sloping walls since your sleeping pad could reduce usable space and make the tent too short for some people.

- **1-person:** Designed for backpacking, with most gear stored outside the tent.
- **2-person:** Suitable 1 one person with gear inside tent and possibly a dog, or 2 people with all gear stored outside.
- **3-person:** Fits 2 people with minimal gear inside the tent or 3 people with all gear stored outside.
- **4-person:** Accommodates 2-3 people with gear inside the tent or 4 people with gear stored outside.
- **5-person:** Comfortably fits 3-4 people with gear inside the tent or 5 people with gear stored outside.
- **6-person:** Suitable for 3-5 people with gear inside the tent or 6 people with gear stored outside.

Rainfly: In situations where you do not have enough space to allow for ideal tent arrangements for participant comfort, rainflies can help by creating vestibules to protect gear stored outside the tent. This allows you to accommodate more participants per tent. These vestibules are specifically designed for gear storage, even if participants may feel uneasy leaving their belongings outside of the main tent. If possible, visit the campsite beforehand to assess the available space. This preparation can help avoid the challenge of rearranging tent assignments after participants have settled in, which often causes frustration.

Options by price:

- **Inexpensive options** ($25-180, depending on size):
    - Fair weather: Generally not designed to withstand high winds or heavy rain.
    - Reusable: Affordable doesn't mean disposable; with proper maintenance, these can last beyond a single trip. See maintenance information.
    - Noisy: Often feature plastic bottoms, which can create noise.
    - Heavier: Often heavier than more expensive options, though there are exceptions.
        - **Midrange options** ($100-300):
    - Good for bad weather: Designed to withstand harsh conditions.
    - Weight: Generally heavier.
    - Durability: Brands like Kelty, REI, and some others offer high-quality options built for repeated use.
    - Ground cloth: Often require a separate protective ground cloth.
        - **Expensive options** ($250+):

- Good for bad weather: Built to withstand harsh conditions.
- Lightweight: Easier for backpacking due to reduced weight.
- Care required/less durable: Lightweight or specialty materials can be prone to breaking or tearing, making them less suitable for inexperienced users.
- Ground cloth: Require a separate ground cloth to protect the tent floor.

Sleeping Bags

Activity: (20-30 min) Show and compare different sleeping bags, making sure to include various sizes (e.g., long, wide, long and wide, youth/short). Have participants try the bags by putting their legs in them to feel the temperature differences. Also, introduce stuff sacks and compression sacks, and have participants pack the bags to experience the weight differences once packed. This can be done during the backpacking trip, and if some participants bring their own gear, you'll likely have a very nice variety of options to explore.

Information to cover as part of the show and compare:

How sleeping bags work: Sleeping bags trap the heat generated by your body's metabolism. The sleeping bag acts as a barrier, holding in the warm air and keeping out the cold from the outside. If you are a smaller person, opt for a smaller bag, as it will require less heat to warm and retain, making it more efficient at maintaining warmth.

Terminology:

- **Synthetic**
  - The filling of the sleeping bag is synthetic (regardless of the outer fabric).
  - PROS
    - Less expensive than down
    - Warm when wet
    - Easy to wash
  - CONS
    - Heavy
    - Take up a lot of space—doesn't compress much
- **Down**
  - The filling is either hydrophobic, goose, or duck down.
    - Hydrophobic down: Down that has been treated to resist water.
    - Duck down: Less expensive and less warm than goose down.
    - Goose down: More expensive and warmer than duck down.
  - PROS
    - Lightweight
    - Typically warmer than synthetic
    - Packs down small
  - CONS

    - More expensive than synthetic
    - Requires special care when cleaning
    - Less insulating ability when wet
- **Fill Power:** The loft or fluffiness of the filling, measured by placing one ounce into a tube and measuring its height in cubic inches. The higher the fill power, the warmer and lighter the filling. The lowest quality is around 500-fill (500 cubic inches), while the highest quality is around 900-fill (900 cubic inches).
- **Rectangular sleeping bags:** These are the classic sleeping bags you remember from summer camp. They are rectangles and zip up the side (and possibly the bottom). The most spacious style, they are generally considered the most comfortable by most people.
- **Mummy sleeping bags:** These are tapered to fit your body more snugly, allowing them to warm up gaster (since there is less air to heat with your body) and making them lighter. They also feature a "hood" to keep your head warm. However, some people find them constraining or claustrophobic.
  Quilts: Available in mummy, rectangular, or square shapes. Mummy-shaped quilts lack the bottom section and hood of traditional bags, so users sleep directly on their sleeping pads with the quilt wrapped around them. These save even more weight without compromising warmth, as compressed insulation doesn't insulate effectively. Quilts are less common and primarily produced by small niche brands, making them more expensive. Some may be sewn shut at the bottom similar to a mummy bag, while others open up completely into a flat blanket. Some people prefer quilts for their flexibility, as they can be adjusted more easily to suit different temperatures by throwing them off like a blanket.

Sizing:

The size of sleeping bags depends on the manufacturer, but generally, regular-sized bags work fine for adults who are not particularly tall or wide. Sizing is most important for mummy bags and quilts. Pay close attention to the specifications (specs) for each bag, and if you are unsure about the best size for you, visit a store to try them out. If you are outfitting a group of teenagers or young adults, it's a good idea to invest in at least one long-wide bag if you are building a gear supply for trips.

Men's vs. Women's bags: These labels are only used for mummy bags and indicate slight differences in the fit. Men's bags are widest around the shoulders, while women's bags tend to be wider from the shoulders to the hips. Women's bags are also shorter than Men's bags. Additionally, some companies also make women's bags warmer than their equivalent temperature-rated men's bags (usually by no more than 5 degrees).

Warmth rating:

These can be tricky. More expensive sleeping bags are rated using the International Organization for Standardization (ISO) system, which replaced the previous EN (European Norm) system. For more information about these rating systems, check out this helpful article: https://www.switchbacktravel.com/sleeping-bag-temperature-ratings. The ISO rating allows for easier comparison, as all bags are held to the same standard. Some bags also provide two temperatures—comfort and survival (or lower-limit).

You may come across articles that explain these two temperatures in terms of gender, with the assumption that men sleep warmer and, therefore, women need/want a warmer bag for similar conditions. However, it is important to try out sleeping bags to see what works best for your personal needs. If a manufacturer offers both men's and women's bags, the women's bags will typically have more insulation for the same temperature rating and will weigh slightly more, unless they are also shorter.

If you are only camping in the summer, a 30°F comfort-rated bag is likely more than warm enough. However, if you plan to camp in the spring or fall, you may need a warmer bag, and for winter camping, you will likely require a 15°F or even a 0°F bag, unless you regularly camp in the mountains, where a warmer bag might be necessary. Even desert nights can get quite cold in the winter, and the mountains are even colder.

Consider elevation when camping in higher-altitude areas. When checking the weather, pay attention to both the temperature and the "feels like" temperature. The "feels like" temperature is often about 10°F lower than what is posted, so be sure to factor that in when planning your trip. There is nothing worse than a freezing cold night to ruin a fun camping experience for your group. Bags rated for 50°F are best reserved for heated trailers and sleepovers.

Options by price:

- **Inexpensive** ($20-75):
  - Most likely rectangular bags with synthetic filling.
  - Often do not have an official temperature rating, even if the manufacturer provides one.
  - Heavy and large—great for car camping where space isn't an issue.
- **Midrange options** ($75-200):
  - Mummy bags and possibly some mass-produced quilts on sale.
  - May be synthetic or down.
    - Lighter and more packable, regardless of insulation.
    - Often designed for durability.
    - The higher end of this range should include an ISO temperature rating.
- **Expensive options** ($200+):
  - Mummy bags and quilts made primarily from down or high-tech synthetic materials.
  - The lightest and most packable option.
  - Almost always include ISO temperature ratings (with exceptions for extreme low-temp bags and kids' bags).
  - May require special care if they use lightweight fabrics.

Sleeping Pads

Activity: Show and compare different pads. Hold a discussion about participants' prior experience with pads. If the group has brought their own gear, have them set it up. Some people choose not to use pads, which can work in warm temperatures, but remind them that the ground cools you even when the air is warm. Pads help insulate you from the cold.

Suggestion: Set up all available pads before the event and allow participants to lie on them. This can be done during short Tier 1 workshops, but also work well during pre-trip meetings or even during Tier 2 camping and backpacking trips, and if some people bring their own gear, you'll have a great variety of options to look at.

Information to cover as part of the show and tell:

Terminology:

Material

- **Closed cell foam:** The foam equivalent of an egg carton, with an outer coating that may add some insulation. Generally has a low R-value.
- **Self-inflating**: Pads with a valve that allows air to automatically enter when the pad opened.
- **Inflatable**: Requires you or a pump to inflate the pad.

Insulation

- **R-value:** The higher the R-value, the better the insulation. Values below 2 are suitable only for warm weather. Values from 3-4 are the most popular, but R-values can go up to 7
  - 2 to 3: Suitable for 32°F
  - 3 to 4: Suitable for 20°F
  - 5+: Suitable for 0°F

Sizing:

- **Standard:** 20 inches wide and 72 inches long.
- **Short:** Designed for petite individuals and those looking to cut weight. These typically cushion only the torso and not the feet if you are taller.
- **Tall:** 78+ inches long, designed for taller individuals.
- **Wide:** 25-30 inches wide, ideal for wider individuals or those who move around a lot.
- **Double:** 40-50 inches wide, suitable for 2 people.

Pads come in various thicknesses, ranging from less than an inch to over 5 inches. Thicker pads may not be suitable for backpacking due to their size and the time required to inflate them, but they can be great for those who find it difficult to sleep on the ground.

Options by price:

- **Inexpensive options** ($25-180 depending on size):
  - Typically do not have great insulation.
  - Reusable: Cheap doesn't mean it will only last a trip. See maintenance information.
  - Closed-cell foam: Affordable and durable, but thin.
  - Inflatable: Cheap, but often without insulation, making them suitable only for summer.
- **Midrange options** ($100-300):
  - Feature some form of insulation.
  - Can be lighter, though some may be heavy.
  - Durability: Some great brands, like Kelty, REI, and others, are good for repeated use.
  - This price range includes closed-cell foam, inflatable, and self-inflating options.

- **Expensive options** ($250+):
    - Generally designed for backpacking and/or extremely cold weather, though there are some very large luxury pads for car camping in this category.
    - Not necessarily more durable than other options.
    - Either extremely lightweight OR a very high R-value, but typically not both, with a few very expensive exceptions.
    - These tend to be noisy due to the type of insulation used, which resembles a sheet of Mylar that is either under the top surface or floats in the middle of inflated pads.

Stoves

Activity: Have pairs prepare a meal using one of the available stoves. Hold a discussion about prior experience with cooking outdoors. If time is limited, pairs can heat water for a hot drink, but it's recommended to set aside enough time to prepare a simple meal, if possible. This activity can be part of a pre-trip meeting that includes a discussion on different types of backpacking meals or can be done during the trip. Cooking meals, whether as a pre-trip event or on the actual trip, should ideally introduce participants to freeze-dried backpacking meals and ways to bring and cook fresh food.

Information to cover as part of the show and tell:

Terminology

Propane stoves: These stoves typically have 1-2 burners and use pure propane for fuel. These are easy to use and allow you to use pots and pans similar to those used in a kitchen. However, they are large and heavy, making them more practical for car camping where you do not have to carry the gear.

Canister stoves: These stoves connect to closed fuel canisters of pressurized gas, usually a mix of propane, butane, and isobutane. They are the easiest to use. Smaller stoves attach to small canisters of propane, but they tend to be heavier and less effective in colder weather unless they have feature to pressurize the gas.

- **Integrated canister stoves**: These stoves have a pot that locks onto the burner to improve boil times. These perform better in windy conditions than other stoves. Popular examples include JetBoil and MSR Windburner. These stoves are best for trips where you only boil water (e.g., rehydrating meals) and are heavier than other options. They are also more prone to tipping over. This stove type does not require you to bring an additional pot.
- **Remote canister stoves:** These stoves use canister fuel but have a burner attached via a hose, allowing it to stand alone. They often have wider pot supports and can be used with a windscreen. Holding the canister upside down can help performance in colder weather. An example of this stove is the MSR LowDown Remote Stove Adaptor.

Note: Non-integrated canister stoves require an additional pot, but the combined weight of the stove and pot is often less than that of integrated canister stoves. These stoves also allow you to cook in the pot. However, they typically cannot support larger pots due to their small size. An example of a pot is Sea to Summit Alpha Pot (1.2 liters).

Liquid fuel stoves: Similar in appearance to remote canister stoves, these use white gas instead of canister fuel. White gas is widely available internationally and is more environmentally friendly since you buy it in large containers and fill a smaller, specialized bottle for trips. Some newer models can use both white gas and canisters, offering more flexibility. These stoves can support larger pots and be used with windscreens. One major advantage is that they are easily repairable on trips, unlike most canister stoves. Liquid fuel stoves require priming (not complicated, but a extra step) since the fuel bottle you carry is not pressurized. An example is the MSR WhisperLite International Backpacking Stove.

Tablet (solid fuel) stoves: These are essentially shielded pot stands with a tray to burn solid fuel pellets. For short trips at lower elevations and in warmer temperatures, these stoves can boil water while saving a lot of weight, and they tend to be more affordable. However, they may not burn hot enough to boil water at higher elevations or in colder temperatures, which can be a problem if you need hot water to rehydrate food. Additionally, not all tablets burn cleanly, leaving pots coated in soot. The tablets also have a smell that some people find unpleasant, and it can permeate the container they are stored in, so it's best not to carry them loose in your backpack. An example of a tablet stove is the TOAKS Ultralight Titanium Solid Fuel Cook System.

Denatured alcohol stoves: Very similar to tablet stoves, but these burn liquid alcohol and require a small container, similar to a can of Sterno used for chafing dishes or fondue pots. These stoves are very affordable, can be made from cans you already have, are extremely lightweight, and use an easy-to-find fuel that can be carried in an empty water bottle. However, they are less fuel-efficient and may not boil water in lower temperatures or at higher elevations. An example of this stove is Solo Stove Alcohol Burner Stove.

Alternative fuel stoves: This is a catch-all category that sometimes includes tablet and alcohol stoves but typically refers to wood-burning stoves. These stoves are small and lightweight and work well if fires are allowed at your destination, and you can collect small twigs on your route (note that popular routes may be picked clean, so check before relying on this type of stove). This allows you to avoid carrying fuel, keeping your pack lighter. However, burning wood often covers pots in soot, so it can be messy if you don't have a good cover for your pot. An example of this type of stove is the Kuvik Titanium Wood Stove, ideal for backpacking, camping, and survival.

Piezo-igniter: A built-in spark lighter on some canister stoves. While they add some weight to the stove, they offer convenience. However, they are known to fail on many stove models, so it's recommended to carry a backup lighter or matches just in case.

Stabilizers/canister stands: Some canister stoves come with (or offer as an accessory) a stand for the fuel canister, which helps reduce the risk of it tipping over.

Windscreen: A lightweight, heat-proof shield that can be placed around a stove to improve performance in windy conditions. Wind can make it difficult or impossible to boil water with certain stoves, so a windscreen can be very useful, especially when natural windbreaks (like large rocks or trees) are unavailable. However, you should NOT use a windscreen that wraps around a canister, as it can trap heat and cause the canister to explode. Some canister stove manufacturers offer windshields that clip onto the top of canisters or burners to help address this issue.

Options by price

Stoves can be inexpensive, easy to use, lightweight, and efficient, but they are rarely all three.

- **Inexpensive options** ($10-35 depending on size):
  - Generic brands can be as good as name brands.
  - Typically, these are non-integrated canister stoves, but some alternate fuel stoves also fall in this category.
  - Alcohol stoves are often in this price range.
  - Generally, these stoves are very lightweight if marketed for backpacking.
  - Little to no warranty or customer service if a generic brand.
  - If from a name brand, these stoves are usually heavies and less fuel-efficient compared to their more expensive models.
  - The BRS-3000, extremely popular with backpackers, costs under $20 and is often carried as a backup.
- **Midrange options** ($35-99):
  - Includes well-known, reliable, and efficient canister stoves (not integrated) with a good weight-to-performance ratio.
  - Some canister stoves in this range are capable of cooking at lower temperatures, allowing you to simmer liquids.
  - Generic integrated canister stoves fall into this range, though they may be heavier or less reliable.
  - Also includes many alternative fuel stoves, with the lower-priced models typically made of heavier stainless steel and the higher-end models featuring lighter titanium construction.
  - This range often includes packages with stoves, windscreens, and other accessories.
- **Expensive options** ($100+):
  - All brand-name integrated canister stoves are in this category, with the exception of excellent sales.
  - Brand-name liquid fuel stoves also fall into this range.
  - In this price range, you typically get greater ease of use and/or increased flexibility.

Additional kitchen gear

- Pots and pans:
  - What you need depends on your group size.
    - For groups of six or fewer, you can get away with:
      - 4 qt pot with lid
      - 1 qt pot with lid
      - Frying pan and/or griddle
    - For groups of 12 or fewer, you can get away with:
      - Double the six-or-fewer list OR
      - 8 qt pot with lid
      - 2 qt pot with lid

            - Extra-large frying pan and/or griddle that covers two burners
        - Be sure to check that larger pots and pans fit on your stove before the trip. Some two-burner propane stoves have limited space between the burners.
    - Car camping allows you to use anything you have at home. You do not need anything special—especially if you're using a propane stove. You can also pick up inexpensive cookware at a thrift store. Since this gear will be subjected to rough use, it's not the time to bring your nice kitchen gear.
    - Many companies make cookware designed for camping. The most common and durable options include:
        - Enamelware: The old-school steel cookware coated in a colorful layer of enamel (often with white flecks).
            - Semi-nonstick
            - Heavy
            - Great heat conductor, making it ideal for cooking.
            - Works well with campfire cooking when placed on a grill above the fire or coals.
            - Often, but not always, dishwasher safe.
        - Cast-iron: Even more old-school than enamelware. If purchased new, it is typically dark gray or black (if pre-seasoned).
            - Extremely durable, as long as it is well cared for—rust is the enemy of these pots and pans.
            - Works well with campfire cooking; pots can be placed directly on coals or on a grill.
            - Very heavy, especially in larger sizes.
            - Well-seasoned cookware is highly non-stick.
            - Ideal for low-temperature, slow cooking.
            - May heat unevenly, so requires monitoring at higher heats.
            - Requires extra care, including oiling before storage and maintaining seasoning.
            - Typically not dishwasher safe.
        - Stainless steel: Similar to regular kitchenware, but often thinner and with folding handles.
            - Available in many sizes and types.
            - The least expensive option for most situations.
            - May come with a nonstick surface, such as Teflon.
            - Dishwasher safe
- Other cooking needs
        - Bowls: 1-2, 4 qt bowls (or larger for bigger groups)
        - Spatula: Ensure it is resistant to high temperatures
        - Spoon(s): For stirring and serving
        - Tongs

- Knife: An inexpensive kitchen knife works great but be sure the blade is covered with a sheath (you can make one from cardboard or purchase one) to prevent accidents.
- Cutting boards: 1-2. If your group can use one side for raw meat and the other for all other items, you might be able to get by with a single board. If not, it is safest to have two.

BACKPACKS

Activity: Have participants try on different packs. If this is a pre-trip event, load some example packs in advance and have participants unpack and repack them to get comfortable with how to distribute the weight. Once the packs are full, demonstrate the correct way to lift a backpack and have participants practice it. If possible, go for a short walk during the pre-trip event.

If this is done at the trailhead, you may only have time to help participants pack their assigned packs, teach them how to adjust the packs, show them how to lift the packs, and then hit the trail. Participants can practice packing their bags during the trip, if time allows—they will need to repack every time you break camp.

If it/s their first backpacking experience, ensure you are available to observe how they load their packs and offer advice.

This must be done pre-trip, either as an event or through providing very clear information. Nothing ruins a backpacking trip like a poorly fitted pack with too much weight. If your organization has backpacks that are highly adjustable, you may be able to conduct this during a one-hour orientation just before hitting the trail. However, if participants need to rent their own packs (or if you arrange this for them), it is safest to work with a company that offers professional fitting.

Information to cover as part of the activity:

Terminology

- **Base weight:** The weight of all non-consumables in your pack, including your pack itself. This excludes fuel (but not necessarily fuel containers), food, and water. A typical backpacker will have a base weight of 25-30 lbs. You are generally considered a lightweight backpacker if your base weight is 10-20 lbs, and an ultra-lightweight backpacker if your base weight is under 10 lbs, though definitions can vary. Reaching a base weight of less than 10 lbs requires investment in specialty gear, which is often very expensive, AND leaving behind items that many backpackers consider essential.
- **External frame packs:** An older technology that is less common today. These packs feature a visible metal frame, with the bag attached on one side and the straps on the other. They can carry heavier loads than an equivalent internal frame pack, provide better airflow to your back, are generally less expensive, and offer numerous attachment points on the frame for gear such as a tent, sleeping pad or bag, or even a bear canister to save space. However, they tend to be heavier and often extend further from your body, which can be uncomfortable for some people as it restricts head movement and may make it harder to maneuver through tight spaces.
- **Internal frame packs:** A newer technology featuring thinner and much lighter support frames that are entirely inside the pack. These packs are designed to have a smaller profile and move with the hiker's body, making it easier to navigate rough terrain and tight spaces. They weigh less than external frames but tend to cost more. While most offer the ability to attach items to the outside of

the pack using sewn-on straps, this is less than on external frames. The structure of internal frame packs better transfers weight to your hips, reducing fatigue and back strain. Many also offer some degree of ventilation for the back, though not all do, which can make a difference in hot or humid weather.

- **Frameless packs:** These packs are essentially just bags with shoulder straps (and often a hip belt). They are exceptionally lightweight but lack many of the features found in heavier packs, such as organizational pockets, padding to protect the back from hard objects, back ventilation, and the ability to transfer weight to the hips. As a result, they require careful packing and cannot carry as much weight, even if there is capacity for more items. These packs are popular with ultralight backpackers.
- **Hip belt:** The hip belt is the primary way packs transfer weight to the hips. The shoulder straps are mainly designed to help keep the pack in position on your body, ensuring that the weight sits on your hips rather than your shoulders. Some companies offer hip belts made from materials that can be molded to your personal shape using heat, but this requires working with a certified store in person to get the best result. Some hip belts are designed to pivot with your body, reducing pack movement while you hike. The amount of padding on hip belts varies significantly, and people find that certain brands fit their bodies better than others. It is important to try on several packs with weight in them to determine what works best for you. More substantial hip belts may include pockets, and some companies offer accessory pockets can be added to your hip belt. A properly fitted and adjusted hip belt will transfer about 80% of the pack weight on your hips.
- **Load lifter straps:** These are typically two sewn-on straps at the top of the shoulder straps, attached to the main bag. They help pull the weight off your shoulders and should be positioned at about a 45-degree angle.
- **Sternum straps:** Attached to the shoulder straps, these straps connect the two shoulder straps across your sternum or chest. They help stabilize the pack, preventing it from shifting while you hike. The sternum strap should be positioned about an inch below your collarbone and tightened so that there is no slack as you move, without restricting your movement or breathing.
- **Hydration sleeve:** A pocket found in some packs designed to separate your hydration bladder from the rest of the gear. Some sleeves are positioned for easy access to the bladder without opening the main pack, while others are fully inside the main compartment. These sleeves may also include a clip to hang your bladder, preventing it from being compressed at the bottom of the bag.
- **Lid (aka Brain):** A top compartment on some packs that sits over the opening of the main compartment, providing extra storage. Some lids are removable, and at least one model features straps on the removable lid to convert it into a large fanny pack.
- **Daisy chains:** A term used to describe straps that are sewn in a way that forms a series of loops instead of lying flat. Some packs feature these loops on the outside of the main compartment to allow for attaching gear.
- **Rain cover:** Most backpacks are not waterproof, so they may come with a rain cover or you may want to purchase one separately to protect your pack in wet conditions. If you have down gear (such as jackets or sleeping bags), keeping it dry is crucial, as it loses its insulating properties when wet. A budget-friendly alternative to a rain cover is using a high-quality trash bag or trash compactor bag to line your backpack. While the pack may still get wet, your gear will remain dry.
- **S and J straps:** These terms refer to types of shoulder straps and their basic shape. J-straps are more common and run straight down from the top of the bag before curving to meet the bottom. S-straps, designed for men with larger pectoral muscles and for women, curve outward at the chest to provide extra room.
- **Capacity:** The total volume of space in the pack. It is important to note that packs available in different sizes may have slightly different capacities, even if they are listed with the same capacity.

Additionally, some manufacturers include large external stash pockets in their capacity estimates, so it's essential to read the details carefully if you need that space as part of the internal space.

- **Haul loop:** A loop located at the top of the bag, intended for lifting the pack. Always use to lift the bag, not the shoulder straps.

Choosing the right capacity for your trip

Everyone is different, and you will likely start out with a single bag that works for most situations. Some bags have compression straps that allow you to tighten things down if you don't have enough gear to fill it on shorter trips, and removable brains add additional flexibility. Keep in mind that a synthetic sleeping bag takes up a LOT of space, so you may need to increase your pack capacity to accommodate it.

- **1-3 nights: 30-50 liters**. If you are going alone and have to carry everything yourself, you will probably need the full 50 liters unless you are camping without a tent. When backpacking with a group, you can divide up shared gear and get away with a smaller bag. Smaller packs will also work if you are willing to strap some of your gear to the outside of your pack.
- **3-5 nights: 50-80 liters.** Most people recommend a 55-65 liter bag for most situations, unless you will be camping in especially cold conditions or leading a group where you need to carry more of the group gear (for example, backup water, gear, and the main first-aid kit). Smaller bags will work if you are willing to strap some gear to the outside of your pack.
- **Extended trips: 70+ liters**. Experienced thru hikers often use smaller bags, but only ultralight backpackers use significantly smaller bags. On these trips, you don't need the extra room for your base weight, which will be similar to what you carry for shorter trips. The extra space is primarily needed for food and possibly water, especially if you're traveling through drier areas.

How to pack a backpack

It is important to distribute the weight of your gear to take advantage of the weight transfer abilities of your pack. Packs are broken down into areas to help you do this.

***Bottom section of main compartment*:** This is where you store midweight items that you won't need until you reach camp.

- Load your hydration bladder here, as it can be difficult to add once your pack is full.
- Place your sleeping bag at the bottom of the pack. Some people prefer to keep it in a stuff sack or compression sack, but many leave it loose at the bottom, as other items will compress it down.
- The bottom of the pack is also a great place for bulky that you only need at night, so your sleeping pad and any clothing you have for sleeping should go in next.

***Middle of the main compartment close to your back*:** This is where you should place your heaviest gear to keep it close to your body.

- Hydration bladders should be stored here. Food that you don't need until camp is the next heaviest item after water.
- Fuel: Ensure containers are tightly sealed and positioned upright to minimize the risk of spills. Canisters and even smaller stoves may fit inside your cookware, helping you save space.
- Cooking and eating gear.
- Some people recommend packing your tent in this area as well. If it is compressed into a sack, it can be fairly heavy for the space it occupies. If you pack it loose in your bag, you can wrap the tent body (and rainfly, if separate) around these heavier items.

Middle of main compartment, furthest away from your back (aka front of pack): This is where your lightest gear should go to prevent heavy things from pulling you over.

- Lighter clothing (such as a puffy jacket) and camp towels can help fill in space left by items closer to your back.
- Lightweight toiletries.

***Top of main compartment and brain*:** This area should be used for items you might need while hiking.

- First aid kit
- Water filter
- Compass and map
- Sunscreen
- Rain jacket (if there's any chance of rain)
- Snacks
- Extra layers for warmth
- Toilet kit (wag bags, trowel, toilet paper, hand sanitizer, etc.)

***Accessory pockets*:** There is some overlap in what goes in the top of your backpack and your accessory pockets. Everyone has their own preferences, so experiment to find what works best for you.

- Sunscreen
- Compass and map
- GPS unit
- Bug spray
- Lip balm
- Snacks
- Headlamp
- Water bottles
- Rain cover (if you carry one)
- Car keys, cash, and ID (many bags have a clip inside an accessory pocket)
- Fleece or rain jacket (if you want to keep it close due to changing conditions)

Remember that there are loops on the outside of your pack for attaching items. On longer trips, people often clip clothing that needs to dry (bring some safety pins to help with this). Some packs have loops for storing trekking poles. You can also strap a large sleeping pad or tent to the bottom of most packs using the sewn-on straps. Additionally, you can loosen the straps that attach the lid to the pack and slide larger items into that space.

How to fit and adjust a backpack

Backpack sizes are based on two key measurements. It helps to have someone else take these measurements for you.

- Torso length: Measure from the C7 vertebrae in your neck (the one that sticks out when you look down) and your iliac crest (the top of your hip bone).
- Waist size: Each manufacturer has its own guidelines, but generally:
    a. Men typically add a couple of inches to their pant size.

b. Women typically add several inches to the smallest part of their waist.

Once you have your bag, add some weight to it and lift it onto your thigh or another surface about that height using the haul loop—do not lift it with the shoulder straps.

- Slide one arm into a shoulder strap, followed by the second arm.
- Fasten the hip belt and tighten it until the weight of the pack rests firmly on your hips, with the belt sitting on top of your hip bones.
- Adjust the shoulder straps so they are snug, but not so tight that they put weight on your shoulders.
- Adjust the load lifter straps at the top of the shoulder straps (if present) so that they are at a 45-degree angle relative to your body.
- Fasten the sternum strap, adjusting it so it rests an inch below your collarbone (you may have to adjust this distance if you have an especially prominent collarbone), and tighten it so there is no slack, but it does not restrict breathing or movement.

APPENDIX C: ADDITIONAL RESOURCES

In this section we list a number of ORLP staff vetted resources that instructors and participants can use to review or learn more about the topics covered in the ORLP curriculum. Note, websites were vetted in November 2024 and may not continue to work or may not continue to provide good information. They have been lumped by workshop topic, but Camping is covered in three workshops and so those have been combined. In addition, please note that resources listed under Planning Day and Overnight Trips may include good information for camping and backpacking.

Camping Information:

https://www.nps.gov/subjects/camping/how-to-camp.htm

https://www.blm.gov/programs/recreation/camping

https://www.npr.org/2020/07/22/894312084/new-to-camping-heres-how-to-get-started

https://www.blm.gov/programs/recreation/recreation-activities/nevada

https://parks.canada.ca/voyage-travel/hebergement-accommodation/camping-101

http://www.backcountryattitude.com/campfire-problems.html

https://www.rei.com/learn/expert-advice/campfire-basics.html

https://www.rei.com/learn/expert-advice/camping-for-beginners.html

https://www.coleman.com/camping-101-guide.html

Outdoor School Hiking and Camping: The Definitive Interactive Nature Guide

How to Camp in the Woods: A Complete Guide to Finding, Outfitting, and Enjoying Your Adventure in the Great Outdoors by Devon Fredericksen

10+ Essentials Information:

https://www.nps.gov/articles/10essentials.htm

https://americanhiking.org/resources/10essentials/

https://www.outdoors.org/resources/amc-outdoors/outdoor-resources/the-10-essentials-what-to-pack-for-a-backcountry-hike/

https://visitguadalupemountains.com/desert-hiking-essentials/

https://lnt.org/how-to-reduce-stops-by-packing-the-10-essentials-on-your-next-trip/

https://www.backpacker.com/survival/survival-gear/ten-essentials-less-important-than-you-think/

Trip Best Practices:

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

https://www.thisexpansiveadventure.com/blog/planninganadventure/

https://www.outsideonline.com/outdoor-adventure/exploration-survival/everymans-guide-planning-epic-adventure/

https://veggievagabonds.com/adventure-planning/

https://recreation.richmond.edu/common/PDF/oar-planning-future-trips-.pdf

Planning a Day or Overnight Trip (also see Camping Resources):

https://www.outsideonline.com/outdoor-adventure/hiking-and-backpacking/how-plan-day-hike/

https://americanhiking.org/resources/planning-your-hike/

https://www.hikingdude.com/hiking-planning.php

https://forecast.weather.gov/MapClick.php?lat=36.2176&lon=-115.0232#.YeXmzRPMI-Q

https://mtcharlestonweather.com/

https://weather.com/weather/today/l/Lake+Mead+National+Recreation+Area+NVNPSLAME:13:US

How to Suffer Outside: A Beginner's Guide to Hiking and Backpacking by Diana Helmuth

Pocket Guide to Hiking/Backpacking by Ron Cordes

The Ultimate Hiker's Gear Guide (2nd Ed.): Tools and Techniques to Hit the Trail by Andrew Skurka

Websites to reserve campsites on public lands:

https://parks.nv.gov/about/reservations

https://www.recreation.gov/

Trip Safety:

https://wildernessmedicine.com/

https://www.nols.edu/en/

https://www.coursera.org/ (search for wilderness first aid courses)

https://www.rei.com/learn/expert-advice/wilderness-first-aid-basics.html

https://intermountainhealthcare.org/classes-events

https://www.acls.net/wilderness-first-aid-basics

https://www.redcross.org/take-a-class/cpr/wilderness-sports?srsltid=AfmBOorUXUfINeFBXN4kmKgMKVlShldJ6Q3xd2WgS0CVd2j9wUyRpCKA

Medicine for the Outdoors: The Essential Guide to First Aid and Medical Emergencies by Tate Higgins and Ali Arastu

Navigation:

https://americanhiking.org/resources/how-to-use-a-compass/

https://www.rei.com/learn/expert-advice/navigation-basics.html

https://www.backpacker.com/skills/how-to-use-a-compass/

https://www.gore-tex.com/blog/how-to-use-a-compass

https://wildernesstimes.com/how-to-use-a-compass/

https://www.maptools.com/declination

https://edrnet.com/wp-content/uploads/2014/08/US-Topo-Map-Symbols.pdf

https://pubs.usgs.gov/gip/TopographicMapSymbols/topomapsymbols.pdf

In case your maps are all VERY old, additional information can be found here: https://www.usgs.gov/faqs/where-can-i-find-a-topographic-map-symbol-sheet?qt-news_science_products=0#qt-news_science_products

If you have time to go into symbols in more detail: https://s3.amazonaws.com/wateratlasimages/HowToReadTopoPlusActivity.pdf

Wilderness Navigation: Finding Your Way Using Map, Compass, Altimeter & GPS, 3rd Edition (Mountaineers Outdoor Basics) by Bob Burns and Mike Burns. Mountaineers Books. February 24, 2015.

Wilderness Navigation: Finding Your Way Using Map, Compass, Altimeter & GPS, 3rd Edition (Mountaineers Outdoor Basics) by Bob Burns and Mike Burns. Mountaineers Books. February 24, 2015

Backpacking (also see Day and Overnight Trips):

https://andrewskurka.com/beginner-first-time-backpackers-advice-info-tips-resources/

https://outwardbound.org/blog/beginners-guide-backpacking/

https://www.shedreamsofalpine.com/blog/backpacking-for-beginners

https://amandaoutside.com/backpacking-tips-for-beginners/

https://www.backpacker.com/skills/beginner-skills/the-total-beginners-guide-to-backpacking/

https://www.rei.com/learn/expert-advice/backpacking-beginners.html

https://www.treelinereview.com/backpacking

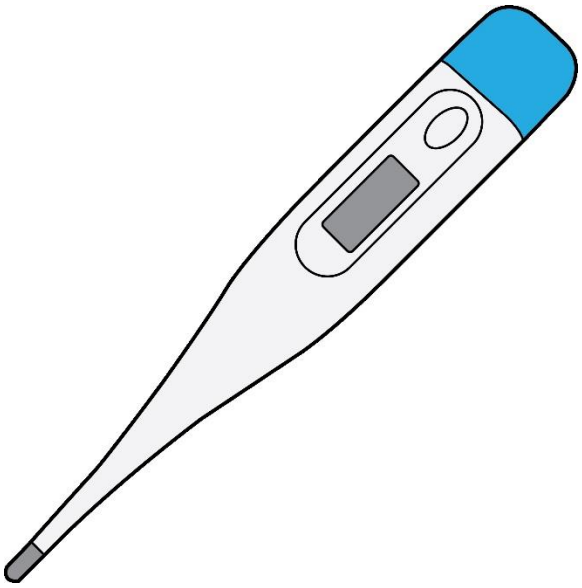
The Backpacker's Field Manual, Revised and Updated: A Comprehensive Guide to Mastering Backcountry Skills by Rick Curtis

How to Survive Your First Trip in the Wild: Backpacking for Beginners by Paul Magnanti

The Backpacker's Handbook (4th Ed.) by Chris Townsend

APPENDIX D: TRIP SAFETY WORKSHOP CARDS

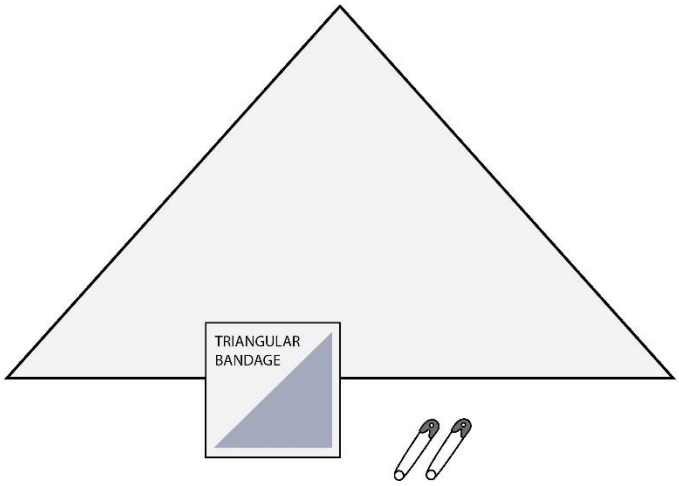
The following are the graphics used for the Trip Safety workshop cards. The original versions were printed and laminated for durability with enough copies of each for every individual or small team of workshop participants to potentially select one of each for their kits.



Thermometer

Purpose: Measures temperature to determine if someone has a fever

$7.55	1.3 ounces



Triangular Bandage

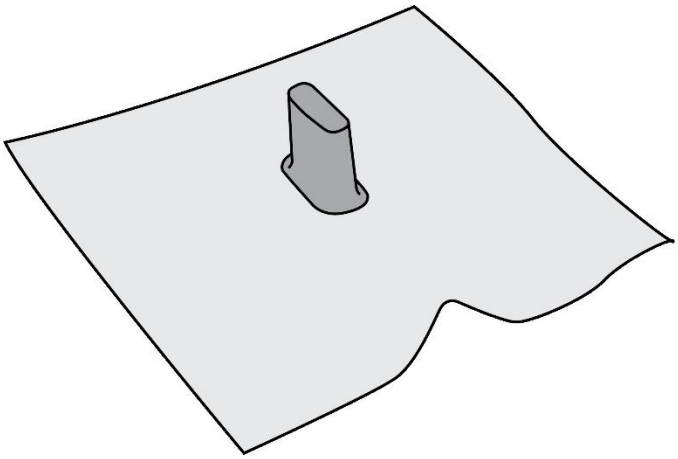
Purpose: Multiple uses including head bandage, sling to support arm injuries, and can be used in tandem with a splint

$9.95 for 12	7.2 ounces

Bag for First Aid Kit

Purpose: Waterproof bag to keep emergency kit organized

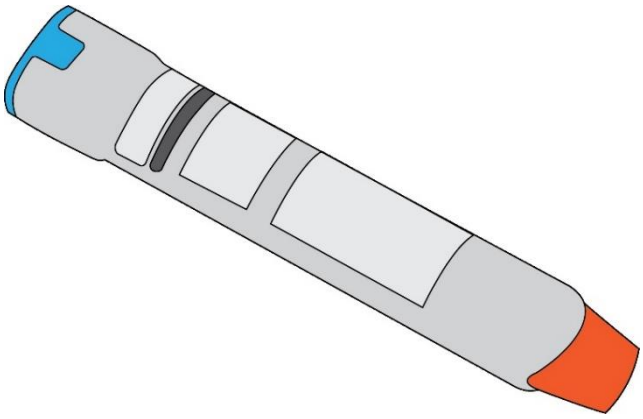
$5.99 for 6” x 4” bag	1.13 ounces



CRP Mask

Purpose: Reduces the risk of cross contamination when administering CPR

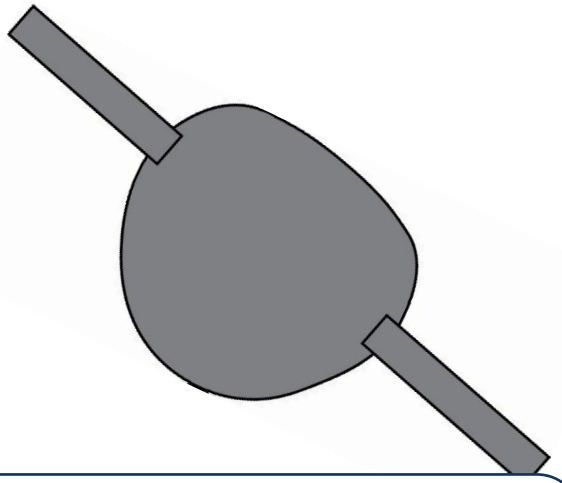
$4.09	0.35 ounces



Epinephrine Pen

Purpose: Counters wheezing, uneven breathing, increased heartbeat, and swelling during an allergic reaction

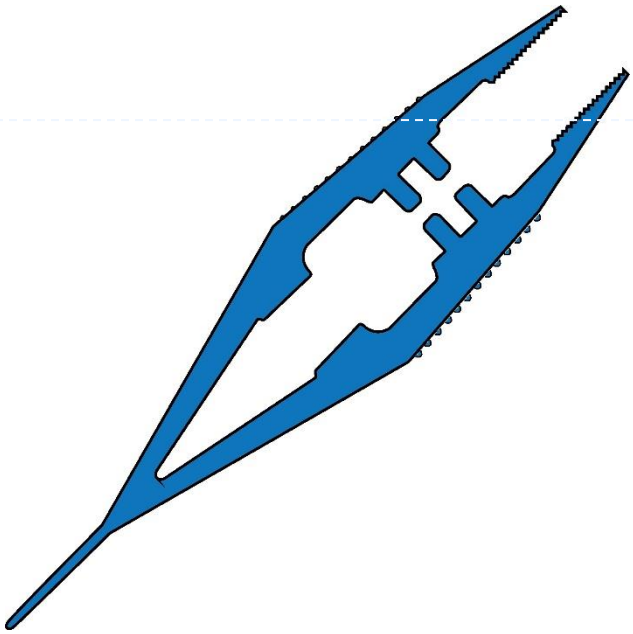
$10 with insurance, $285 without insurance	7.83 ounces



Eye Patch

Purpose: Protection for injured eye

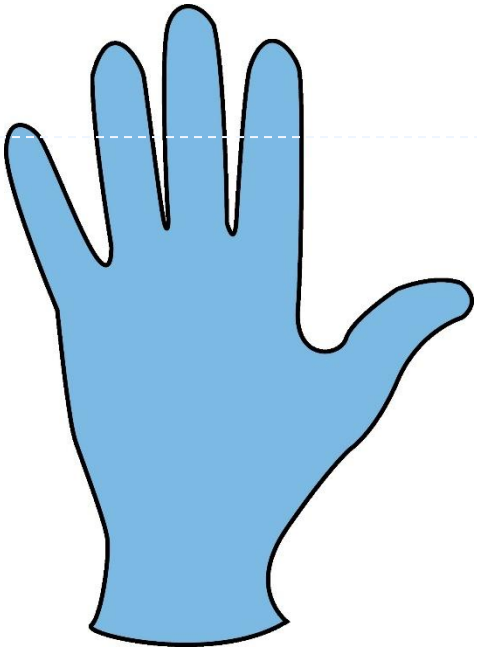
$5.75 for two	0.63 ounces



Tweezers

Purpose: Grasping things off surfaces

$5.99 for ten	1.3 ounces



Nitrile Glove

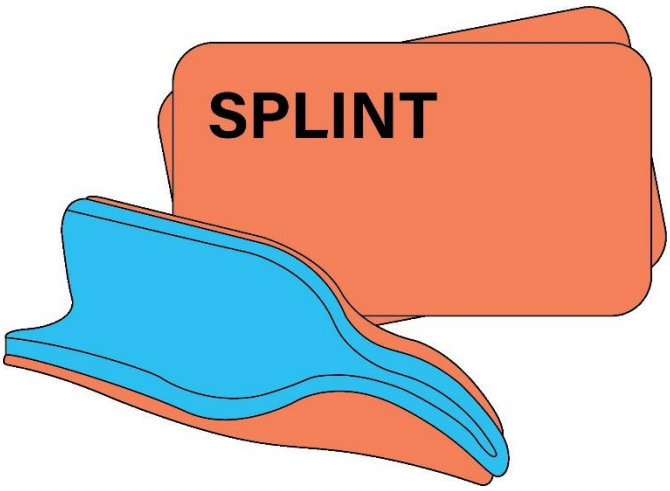
Purpose: Protects hands against contamination

$7.95 for 100	1.2 ounces

Instant Cold Compress

Purpose: Relieves pain, swelling and fever

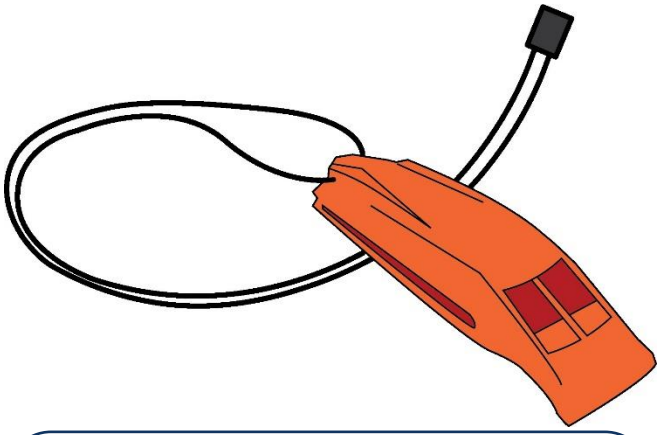
$7.29 for three	8.47 ounces



Customizable Splint

Purpose: Immobilize injuries

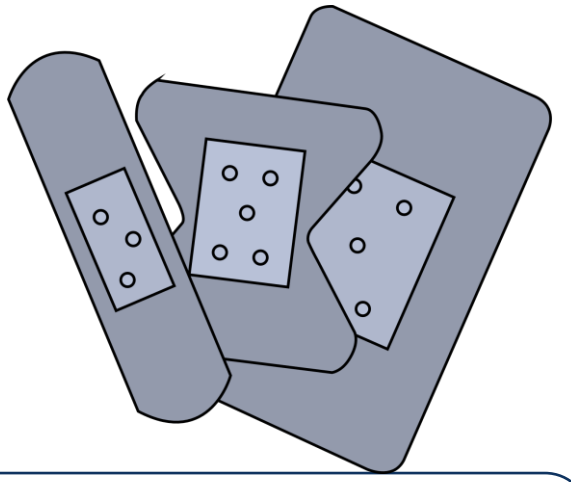
$7.10 for 36” x 4.3” splint	5.29 ounces



Whistle

Purpose: Signal for help

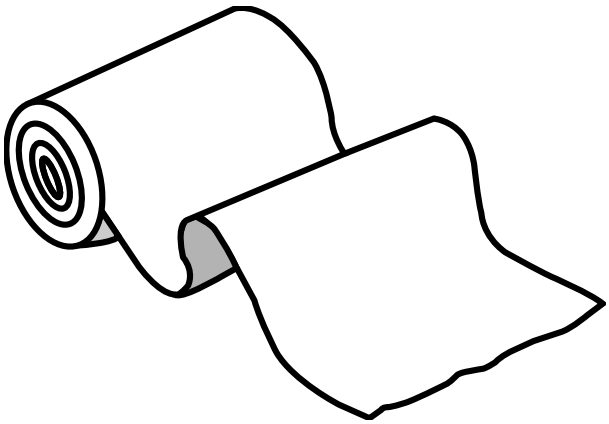
$7.99 for two	1.1 ounces



Assorted Adhesive Bandages

Purpose: Adhesive bandage to protect wounds from dirt, damage, and bacteria

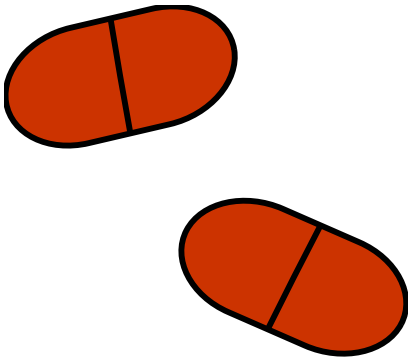
$4.29 for 30ct	0.65 ounces



Rolled Gauze

Purpose: Cover and protect wounds once they've been cleaned

$6.99 for five | 2.0 ounces



Ibuprofen Pills

Purpose: Relieves pain and reduces swelling and fever

$8.99 for 100 pc | 2.08 ounces

Instant Cold Compress

Purpose: Relieves pain, swelling and fever

$7.29 for three | 8.47 ounces

First Aid Manual

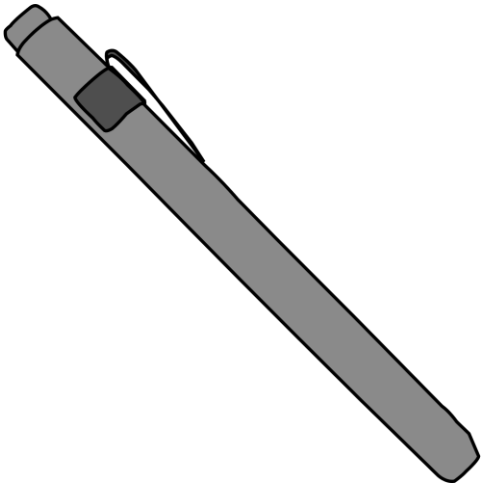
Purpose: Directions to administer first aid

$7.95 | 1.6 ounces

Medical Shears

Purpose: Quickly and safely cut clothing away from injuries

$11.55	1.56 ounces



Pen Light

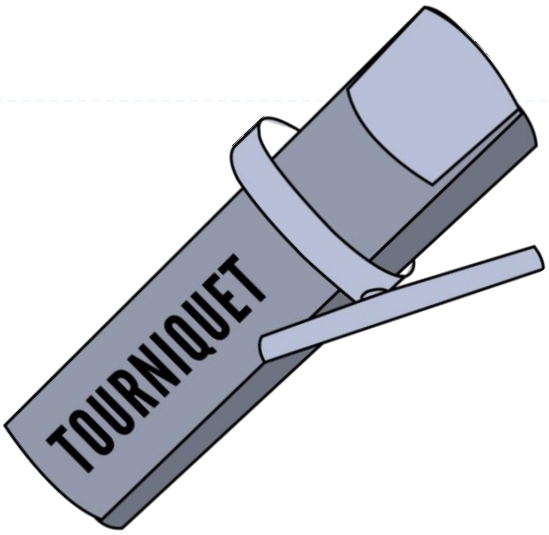
Purpose: Light up small spaces for better visualization

$1.49	1.45 ounces

Hydrocortisone Ointment

Purpose: Relieves itching

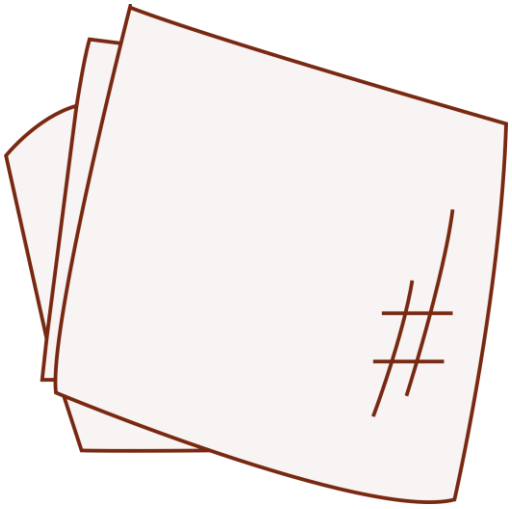
$6.99	1.32 ounces



Tourniquet

Purpose: Stops life-threatening external bleeding

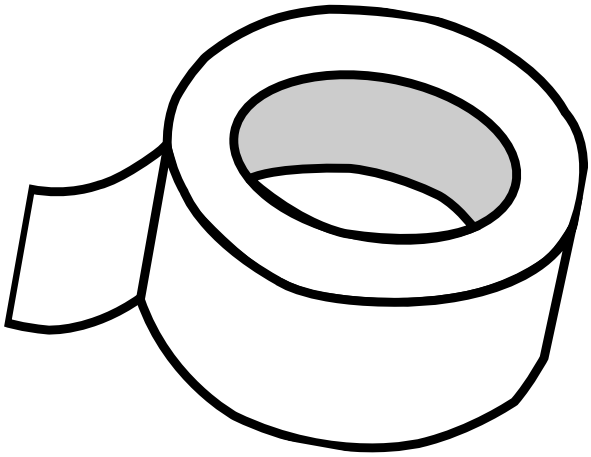
$15.79	3.84 ounces



Gauze Pads (3 in x 3 in)

Purpose: Cleaning and dressing wounds; needs first aid tape to secure to wounds

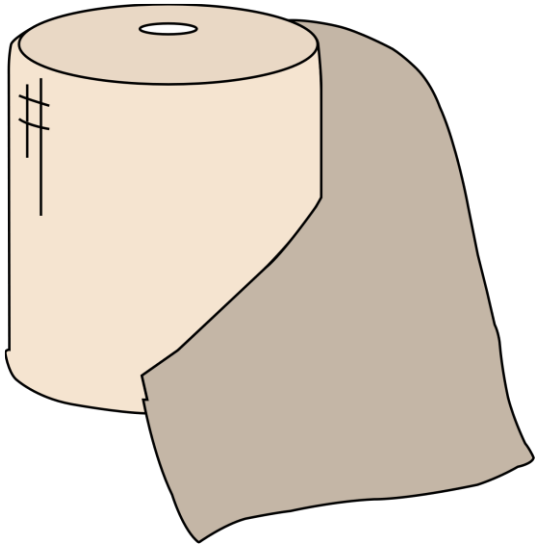
$7.50 for 50	7.83 ounces



Cloth Surgical Tape

Purpose: Secure dressings or gauzes around wounds

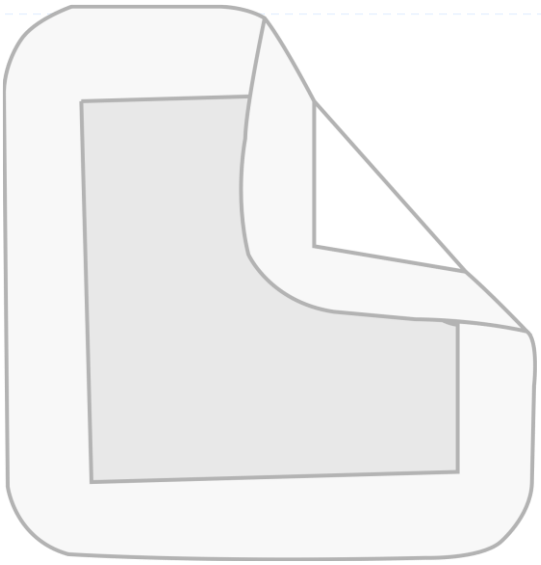
$3.59 for 10 yds	4.5 ounces



Self-Adherent Elastic Wrap

Purpose: Provides support after injury; can be used to secure dressings

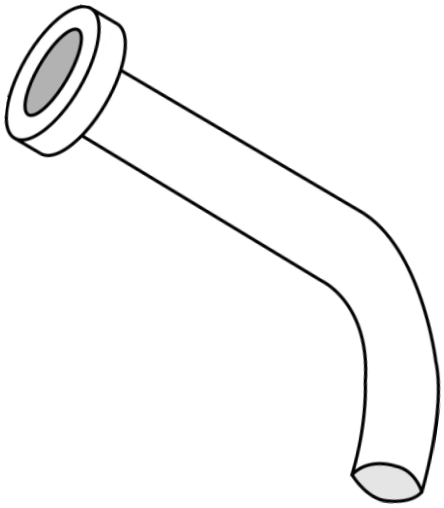
$3.29	8.9 ounces



Absorbent Compressive Dressing

Purpose: Accelerate wound healing for heavy draining wounds

$7.99 for ten 4”x4” pads	3.84 ounces



Antiseptic Wipes

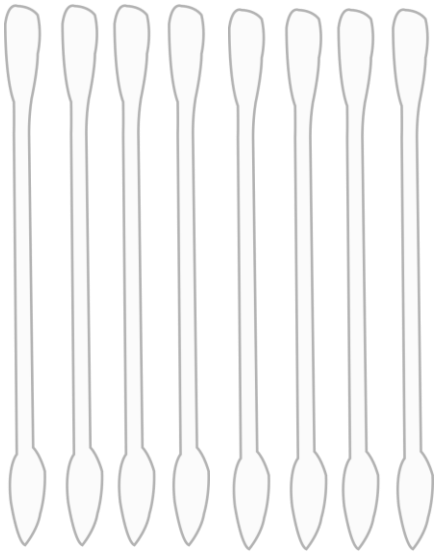
Purpose: Prepare and clean wounds

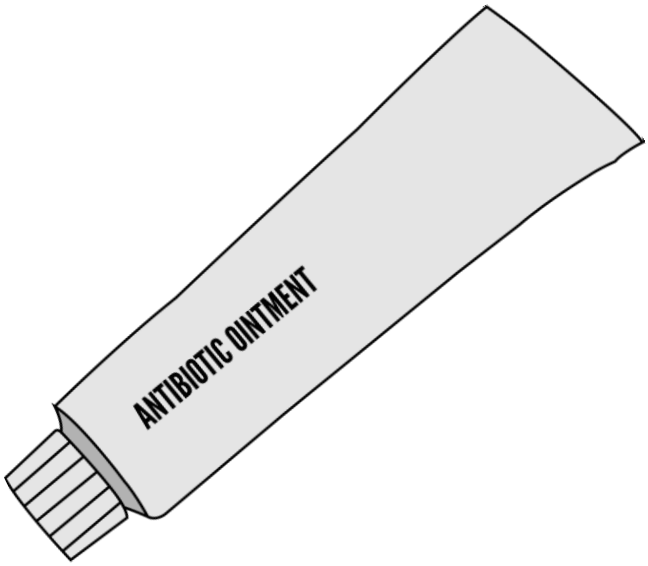
$7.99 for 100	0.32 ounces

Nasopharyngeal Airway

Purpose: Making an airway for a patient who cannot breathe

$9.99	1.13 ounces





Cotton Swabs

Purpose: Cleaning small places

$5.99 for 200 individually wrapped	8.9 ounces

Antibiotic Ointment

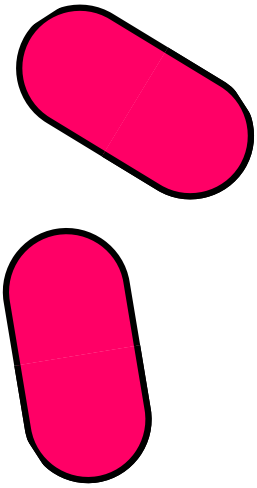
Purpose: Treats minor wounds and helps to prevent infection and minimize scars

$2.99	1.45 ounces

Mylar Blanket

Purpose: Provides shelter and warmth

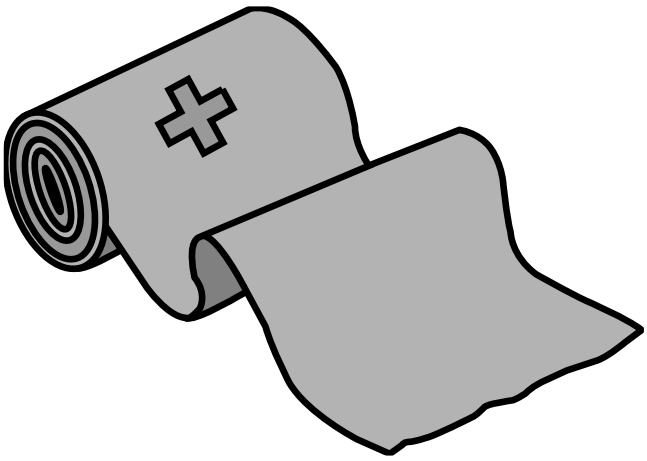
$2.64	19 ounces



Antihistamines

Purpose: Easy many symptoms of allergies

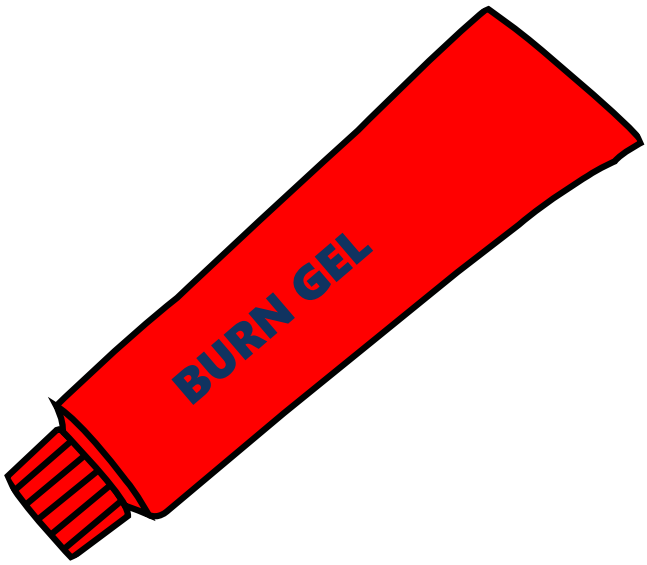
$5.99 for 24 pills	0.8 ounces



Pressure Bandage

Purpose: Staunching blood flow from traumatic hemorrhage wounds

$16.28	3.5 ounces



Burn Gel

Purpose: Treats minor wounds and helps to prevent infection and minimize scars

$9.29 for 6 packets	0.125 ounces per packet

APPENDIX E: DURABLE SURFACES CARDS

The following are the graphics used for the Trip Safety workshop cards. The original versions were printed and laminated for durability with enough copies of each for every individual or small team of workshop participants to potentially select one of each for their kits.

The following are images that can be used for the Trip Best Practices workshop for the durable surfaces activity. You will likely need to print multiple copies of each surface. We suggest that you use the site of the workshop to inspire how many of each type of card you print instead of printing equal numbers of each. As an example, if your workshop is up in the mountains, you might have more snow cards as opposed to if your workshop is at a lower elevation in the desert.

The surfaces included are:

Gravel

Rock

Sand

Snow

Grass

Wildflowers

Playa (dry lake bed)

Wetland

Cryptobiotic Soil Crust