

# **ALCS Experiential Education Handbook**

**“We all strive for safety, prosperity, comfort, long life, and dullness.... A measure of success in this is all well enough, and perhaps is a requisite to objective thinking, but too much safety seems to yield only danger in the long run. Perhaps this is behind Thoreau’s dictum: In wildness is the salvation of the world. Perhaps this is the hidden meaning in the howl of the wolf, long known among mountains, but seldom perceived among men.”**

**Aldo Leopold, “Thinking Like a Mountain”**

To my colleagues:

*It occurs to me that schools need three habits of mind in order to endure:*

*They must be **imaginative, experienced, and reflective.***

*Being **imaginative** is the joyful part of teaching. Without an imaginative staff, a school can ossify; year by year it can turn into a fossil while the world continues to change and evolve. At the same time, if it only has imagination, then everything's an experiment that, in the end, delivers no institutional wisdom. The staff are always improvising and too often hanging out on the ragged edge of catastrophe. Let's avoid that.*

*A school needs **experienced** staff. New blood too, certainly; but it needs "institutional memory." After 15 years' existence, Aldo Leopold Charter has earned the right to boast about its experienced staff. Of course, that institutional experience includes some profoundly painful lessons. (It's much easier to learn from other schools' mistakes, and to that end we've become part of a larger community of creative, adaptive schools who value experiential and outdoor education.) Ultimately, this handbook is a manifestation of our experience.*

*Finally, a school must be **reflective**—perhaps the hardest of these three habits to cultivate, because reflection requires more time than we think; and at the end of a school day, that's what teachers and trip leaders usually lack: time to reflect. But without time spent reflecting, experience sits on a dusty shelf, and imagination keeps wandering around, encountering everything as a surprise.*

*For this handbook to be useful, it needs to be reflected upon. It needs to be changed. It needs to evolve with new data, with new ways of thinking. If anyone ever refers to this handbook as the "Risk Management Bible," gently correct them. In general, the Bible doesn't change. This book better, and probably every year.*

*JMc, 2021*

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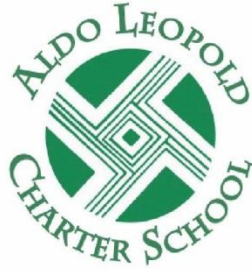
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# **ALCS Experiential Education Handbook**

## **Part 1**

### **Managing Risk in the Outdoor Classroom**

#### **FOUNDATIONS**

*Note that this document is based upon and frequently lifts language and ideas directly from Outward Bound Staff Manual 2008. As that document offered no authorial attribution, neither will this one, as our ALCS Risk Management Handbook lifts language—with permission from Outward Bound and others—but often verges on plagiarism (all in the service of managing risk for Aldo Leopold Charter students and staff).*

#### **The Philosophical Foundation for Risk Management**

Aldo Leopold Charter School is committed to protecting its students by reducing the risk of harm or injury they are exposed to during school activities. No school can guarantee a completely safe expedition in the field; wilderness—and really, any environment outside of the traditional classroom—exposes students to situations and environments that pose some risk; the number and potential severity of such risks are often higher than in our workaday lives. ALCS staff must take adequate and continuous precautions to identify, minimize, and manage such risks in order to reduce the likelihood of all injuries and illnesses and to eliminate significant incidents and fatalities.

Our school's risk management strategy is described in this document, which explains how we reduce exposure to hazards physical, financial, and legal. The best way to do so is to deliver instruction in a safe environment, to place students in appropriate learning environments that challenge them with healthy but not excessive risks, and to utilize equipment and vehicles that are appropriate and in good condition. In addition, ALCS provides insurance for staff and students, has participants sign release forms, and uses a crisis communication system integrated into community agencies (like the New Mexico State Police, the Forest Service, and local search-and-rescue teams). In addition, we have

designated ALCS staff who are assigned duties in the event of a crisis, including communicating with local news media.

The challenge for ALCS's program is to wisely place the fulcrum that balances safety and risk—at once managing and limiting exposure to risk to the highest degree possible while providing a quality experiential education for our students. We owe our students and our families as much. The well-being of students and staff comes first, even while our educational objective is to provide appropriate challenges that impel our students to their potential. Consequently, staff must be able to:

- accurately assess students;
- identify the risk present in all activities and in all environments we expose our students to;
- and then effectively manage those risks.

Staff judgment is the cornerstone of safety at ALCS. In Southwest New Mexico, we find very few actual hazards that cannot be effectively managed by a well-educated staff. Generally, the perceived risks of an ALCS course or activity are sufficient to accomplish our goals without pushing the limits of any activity to an extreme. We do not expect staff to undertake activities in which they cannot confidently manage the inherent hazards. Thus, ALCS staff must be aware not only of the potential risks in any given situation, but must know their own skills and limitations in order to decrease the likelihood that those risks will result in loss or injury.

## **The Importance of “Healthy Risks” in Experiential Education**

Integral to experiential education—and thus to Aldo Leopold Charter School—is the concept of **appropriate, thoughtful exposure to risk**. In our programs, both on-campus and off, our students are deliberately encouraged and expected to take part in activities containing risks unfamiliar to them. At the same time, they are asked to actively participate in and manage those risks. (So too are parents, mentors, and other community volunteers asked to do the same.) Our job as staff members is to identify, understand, and manage our students' exposure to risk, as well as to **train our students** to identify, understand, and manage their own exposure to risk. As we build a strong foundation for our program, we staff exercise good judgment with regards to risk exposure, and then we develop that same good judgment among our teenaged students—who are, it might be worth noting, developmentally predisposed towards unhealthy risk-taking.

One might argue that we live in an anxious age, where *actual* risk varies significantly from *perceived* risk. Anxiety can be pathological, or it can be helpful; with our outdoor experiences like backpacking and rock-climbing, we strive to cultivate a healthy anxiety and to allow students to become familiar with unease and challenge. As Outward Bound

educator and Montreat College Outdoor Education professor Ken Kalisch notes, “There exists considerable evidence based on psychological research that anxiety plays a crucial role in human growth and development. Anxiety serves the purpose of preparing minds and bodies for peak performance.” Most athletes know this instinctively. Engaging in risk challenges students, whether they consider themselves athletes or not, to perform beyond their pre-conceived limits, to face their fears, to experience success (and sometimes failure), to witness their mastery of skills, and to rely on teamwork. Through these experiences, students gain self-confidence, self-esteem, trust, compassion, leadership skills, insight, and—we hope—a greater sense of personal efficacy. This personal growth, and the increased capacity to meet the challenges of their future, is the educational value of engaging in risk.

Here we need to note that, while there is considerable value in facing risk, not all risks result in positive educational outcomes. If staffers inadequately assess particular risks or inadequately prepare students for that risk, then students can become overwhelmed—to the point that their sole focus becomes dealing with their stress and are thereby unable to perform, observe, or reflect on the experience; in the end, they do not glean any insight or personal growth. To ensure that an experience with risk results in positive learning, we staff must be certain that calculated risks are carefully balanced against the emotional and physical capabilities of our students. As part of our “pre-trip training” for our student teams, we need to prepare students with relevant technical instruction, fitness assessment, mental readiness, and social cohesion in order to deal with risks competently.

## **What is an “Acceptable Level of Risk”?**

Defining what constitutes an “acceptable level of risk” is contingent upon the objectives and purpose of our educational program. That is to say, the ALCS mission drives us to design activities that will significantly challenge our students and reward them with the greatest character development possible. It can be seductive to increase the level of risk in an effort to increase the potential for personal growth. Doing so, however, can usher in such a degree of risk that the likelihood of serious injury increases beyond what the staff considers “acceptable.” ALCS will use a well-calculated risk-reward analysis in order to determine the tipping point between a risk that maximizes student growth and one that leads to injury.

## **Types of Risks**

It is helpful to place risks into three broad categories:

- **Actual Risk** is the inherent and objective danger that exists for any situation. Examples include rock-fall danger, challenging rapids, or even a lack of emotional safety. *Staff must reduce Actual Risks to a minimum.*
- **Perceived Risk** is the degree of risk that students sense is present in a situation. Of course, Perceived Risk is hugely influenced by a student's previous experience, confidence level, energy level, and genetic predisposition to fear. Owing to these factors and others, Perceived Risks are quite variable among students (and parents). It may be worth noting that staffers can exploit risk to good purpose when students perceive a risk to be greater than it actually is. (We all know this is one secret to a successful day of rock-climbing.)
- **Residual Risk** is the degree of risk present in any given experience once staff have addressed and managed the Actual and Perceived Risks. To borrow a phrase from a former U.S. Secretary of Defense, these are the "unknown unknowns."

During any activity, all three types of risk are present, and they intertwine and influence each other. Spending time to understand each type of risk independently will heighten our ability to understand the entire risk landscape. The ability to pinpoint and accurately assess each risk type in an activity, and then recognize how it impacts the other risk types, enables us to design and manage experiences that challenge and empower our students.

Note that the Residual Risk of an activity or environment increases when the Actual and Perceived Risks are inaccurately assessed, or if the plan for how to manage them is inadequate. If, for instance, staff underestimate Actual Risk, we put our students and ourselves in harm's way, thereby increasing Residual Risk. On the other hand, if we overestimate Actual Risk, we can slow down group progress due to the time involved in procuring, transporting, and setting up unnecessary technical systems for protection. Sometimes this isn't an overwhelming problem; it merely limits the educational opportunities in a valuable learning environment. In other instances, this unnecessary use of time can expose a group to time-sensitive risks; for instance, achieving consensus on a decision to hike to a better campsite might force the group to hike at night over rough, unpredictable terrain.

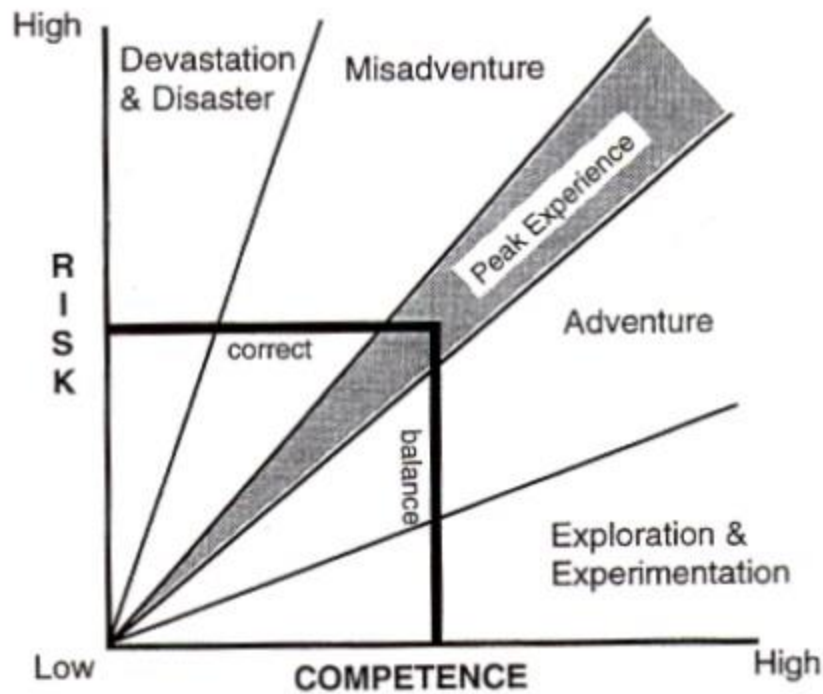
It's worth noting that overestimating risks can also cause our students to take matters less seriously when real risks later present themselves and precautions must be taken. Consequently, it is imperative that staff stay attuned to their own vulnerability to misperceiving the degree of risk in a situation. In short, we must continuously reassess risk in our learning environment.

Students, too, must be taught to accurately assess risk. For instance, they may overestimate risk to the point that they become paralyzed by fear and will end up by not engaging in the challenge presented; or they may underestimate a risk, end up injured or

frightened, and then avoid future challenges because of that negative experience. Perhaps it goes without saying that capitalizing on risk is never easy and always requires reflection.

In sum, the staff's goal is to reduce Residual Risk to an exceptional level for a school-sanctioned event, yet keep the risk level high enough to appropriately challenge our students. High Residual Risk can result in physical or psychological injury, while a too-low Residual Risk can result in boredom—and a lost growth experience for our students.

The diagram below, from an incident-analysis workshop, shows the potential results of varying combinations of Actual Risk and Staff/Student Competence:



See <http://chrisvracas.blogspot.com/2016/02/a-review-of-existing-adventure.html>; this schematic, sometimes referred to as the "Operations Zone Model," is based on a 1986 study by Martin and Priest.

## Types of Hazards

Another way to gauge risks is by examining the types of hazards present. Risk is a byproduct of hazards, which we can usefully classify as either *objective* or *subjective*. Hazards pose risk. A 50-foot cliff is a *hazard*; when a crew must descend it in order to continue a journey, the activity becomes a *risk*. Staff awareness of the different types of



hazards that are present, as well as whether they can be eliminated or reduced, can help us determine whether a risk is advisable or not.

*Objective* hazards are those that are an inherent part of the outdoor experience. Examples include environmental conditions, weather, darkness, rock fall, avalanche, fast-moving water, and lightning.

*Subjective* hazards are those that are brought into the outdoor experience by the actions (or “non-actions”) of humans. They are not a fixed part of the outdoor experience but exist instead only as a result of human error at some level. Subjective hazards are often less immediately obvious than objective hazards and likely cause the greatest number of unfortunate incidents. They require keen attention and a broad scope of awareness to identify them. A short list of behaviors that can heighten risk includes poor staff positioning in the wilderness, acting in haste, poor decision-making, poor communication, unresolved conflict among staff or students, lack of risk perception, response to peer pressure, fatigue, and overconfidence.

To be clear, objective hazards cannot be eliminated—only managed or avoided. Subjective hazards, in addition to being manageable, *can* be eliminated. However, it is impossible to manage, avoid, or eliminate any type of hazard if you cannot recognize it. Recognizing hazards requires acute attention and awareness to ascertain all the hazards present—and to discern whether those hazards are subjective or objective.

One useful way to more specifically understand the hazards present in a situation and how those hazards interact to increase overall risk is to categorize according to **Potentially Unsafe Conditions, Potentially Unsafe Acts, and Potential Errors in Judgment**. Potentially Unsafe Conditions are all *objective* hazards. Potentially Unsafe Acts and Potential Errors in Judgment are *subjective* hazards. Thus: Potentially Unsafe Conditions cannot be eliminated, only managed or avoided, while Potentially Unsafe Acts and Potential Errors in Judgment can be eliminated through appropriate skills training, thorough planning, and proper supervision.

The Accident Matrix shown below was originally developed as a tool to understand principle causes of incidents. It lists the categories of hazards and outlines the associated factors of each. When used to systematically identify hazards and the particular factors creating those hazards, the matrix can also work as a tool to gauge the overall risk of a situation. A key point: ***Risk is significantly increased when two hazard categories are present. If all three are at work and go unchecked, an unfortunate incident is likely to occur.***

## Principle Causes of Accidents in Outdoor Pursuits

<b>Potentially Unsafe Conditions</b> <i>Objective hazards</i>	<b>Potentially Unsafe Acts</b> <i>Subjective hazards</i>	<b>Potential Errors of Judgment</b> <i>Subjective hazards</i>
Falling rocks/objects Weather/storms Heat Cold—including damp cold Swift water Seas/tides/coastal structures Inadequate security Equipment Clothing Animals/plants Unsafe physical or psychological profile of students or leaders Unsafe social norms	Inadequate protection Inadequate instruction Inadequate supervision Unauthorized or improper procedures Unsafe speed Inadequate food and drink Improper field position	Pleasing others Trying to adhere to a schedule or program design Misperceiving Disregarding instinct Disregarding fatigue Succumbing to distraction Miscommunicating Allowing ego involvement to take precedence over more important concerns.

*(This matrix was developed and revised by Dan Meyer and Jed Williamson 1979-98; It has been further modified by ALCS staff.)*

### Managing Risk by Probability and Severity

The hazard management model below, taken from *The NOLS Leadership Toolbox*, can help staff and students assess the risk of specific activities and hazards and make decisions about whether or not to proceed.

<b>Probability of Risk</b>	<b>GO?</b>	<b><i>STOP!</i></b>
	<b>GO!</b>	<b>STOP?</b>
	<b>Severity of the Consequences</b>	

Consider this risk assessment for a sample activity: walking along the top of a log. (One can't help but think of the turn of phrase, "It's as easy as falling off a log.") Depending on the log and its context—is it a pleasant, wide log stretching across a shallow river, or is it a balance-beam element of a high-ropes course?—the probability of an incident and the severity of the consequences interact to guide our decision as outlined in the chart below:

<b>Activity</b>	<b>Probability</b>	<b>Severity</b>	<b>Conclusion</b>	<b>Discussion</b>
Crossing a shallow river on a low, wide log	Low	Low	GO!	Some risk does exist—a damp foot may slip, maybe. Most likely, though, the group can cross without a slip.
Crossing a raging river on a backcountry bridge	Low	High	STOP?	A greater hazard: consequences of a fall are serious. As long as the bridge is in good repair, though, the probability of falling is very low.
High-ropes-course balance beam using a belay system	High	Low	GO?	This scenario presents an increased likelihood of falling—but always into a secure harness clipped into a secure stationary point.
High-ropes-course balance beam without using a belay system	High	High	<i>STOP!</i>	This scenario presents almost certain disaster—due to the likelihood of a slip and the height from

				which a student would fall.
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## Foundations for Effective Risk Management in the Field

Risks are not sought for their own sake at ALCS but are considered a strategy through which we achieve curricular goals. Our educational aim is to achieve course objectives by facing a daunting task *within an appropriate margin of safety*. Our institutional capacity to establish and successfully manage that suitable margin relies on three key abilities:

- **Judgment**
- **Competence**
- **Knowledge of Policies and Procedures**

Without a solid foundation in each of these areas, our ability to recognize, understand, and manage the risks in any given situation is severely compromised. As the degree of risk increases, so increases the need for staff understanding and aptitude in each of these areas.

### Judgment

Judgment is the ability to look at a situation, foresee the cause-and-effect relationship between an action and its outcome, and then choose the most desirable course of action. Exercising judgment is an intentional act. Good judgment relies on knowledge, reflection on past experiences and the lessons learned through them, reflection on the past experiences of others, and reasoning skills. It is not easy to recognize a situation’s range of possibilities and opportunities; staff must seek experience in order to develop their ability to devise solutions to challenges and problems. Judgment is more complex than “common sense,” which is based directly on past experiences. Judgment involves extrapolation from direct experiences, knowledge, and learning, as well as learning from indirect experience (other’s experiences and case studies, for example) to come to conclusions about a new situation.

In the wilderness, the variety of situations you encounter necessitates more than just common sense to assess and manage risks. Often, the most appropriate solution under one circumstance is not the most appropriate under another set of circumstances. For example, a trip leader might use an off-trail overland route as a means of “making up time” in order to arrive at a prearranged camping site. However, any number of factors—inclement weather, exhausted students, high-water conditions, time of day—could render this option inappropriate, even though the trip director may have to alter his expectations. A leader must recognize the ever-changing variables, the combination of which is rarely the same as those she has encountered in the past. Leaders adjust to the new conditions and then choose the most appropriate solution for the set of variables that have presented themselves.

Good judgment is developed through personal experience, training, and utilizing safety-management tools. Understanding and learning from safety reports, from significant

incident analysis, and from case studies are all powerful ways to fine-tune staff judgment. Because it is so essential for successful risk management, we must intentionally and continually work on cultivating our judgment. Here are some suggestions for doing so, adapted from *Leadership the Outward Bound Way*:

**Get experience.** Experience is the best teacher. Go on as many expeditions as you can. No amount of training or study can substitute for first-hand experience.

**Reflect on our mistakes.** Although it might be difficult to scrutinize the decisions and possible mistakes that contributed to an incident, doing so will help teams avoid making the same mistake again and can provide other staff the opportunity to learn from each other's incidents. Examine incidents clinically, with egos out of the mix—insofar as that is possible.

**Learn from others' mistakes.** Talk to other outdoor leaders; ask them about poor decisions they've made and whether they know what they could have done differently. Examine case studies and read annual incident reports.

**Work with mentors.** Learn by watching more experienced co-workers use good judgment. Ask colleagues about their rationale for making certain decisions. Be braver still and ask colleagues to critique your decisions.

**Trust your intuition.** This can be tricky—because intuition can lead one astray! If a staffer finds himself involved in one epic experience after another, it may be that his intuition is betraying him. Perhaps he should be an adventure-filmmaker rather than a student trip leader.

Many good leaders say that when they are about to make a particular decision, a tiny flutter of dread or a “nagging feeling” is enough to warn them that they are about to make a bad judgment call. Pay attention to these warning flags; if a decision doesn't “feel right,” change your plan. Or at the very least, pause long enough to reexamine your plan. It's possible that you have forgotten a critical aspect or have neglected to think through possible outcomes. We trip leaders have an obligation to “educate our intuition.”

Trip leaders develop intuition each day we are in the field, observing students' strengths and weaknesses, a group's reaction to challenges, and changing environmental conditions. It is probably impossible to keep track of all this data and how it interrelates, and yet it is useful to verbalize what we observe. Intuition—especially when cross-examined with a trusted colleague (like your secondary leader)—should be part of every decision we make in the field.

## **Competence**

A leader's competence can be looked at from two perspectives: competence in the field and competence in group dynamics. A leader gains competence by mastering the technical

elements of an activity—campcraft, backcountry navigation, or rock climbing, for instance; of equal importance is her skill in assessing and managing her student group and the complicated interactions between members.

## **POLICY AND PROCEDURE**

### **The Difference Between Policy and Procedure**

Policies are “must-do” regulations, while procedures are “should-do” conventions. You can think of our staff policy and procedure as providing clearly defined boundaries that staff must operate within. But it’s worth noting that, even with clearly defined policies and procedures, some grey areas remain between the black and the white. Experienced instructors know that there are times when, using our judgment and creativity to deliver the ALCS mission, we arrive at an unconventional procedure—that is, one that does not follow established procedure. But we should nearly always stay within the bounds of policy. Some adventure educators use the metaphor of a car driving along a highway: the pavement represents the area in which leaders—“drivers”—use their judgment and competency, while the guardrails along the edge represent policy. You have multiple lanes upon which to drive, but the guardrails keep students, staff, and our program safe. A good rule of thumb: The only time that **not** following policy is acceptable is when **not** following policy will provide a safer outcome. Any decision that will lead you across the guardrails must be intentional and not casual; before guiding yourself over those guardrails, imagine explaining your decision later to the parent of a student affected by your decision or to the trip supervisor.

Perhaps it goes without saying that policies and procedures are essential to staff, students, and the program; they are so valuable that ALCS requires all staff who participate in school-sponsored trips to read this manual before taking students into the field and requires that the Risk Management Committee review the manual annually, with an eye toward changing policy and procedure when doing so is necessary to keep our school activities within the parameters of “healthy risks.” Even our most seasoned trip leaders need to revisit this manual annually.

Our policies and procedures originate from adventure-industry and experiential-education standards, like those promoted by Outward Bound, NOLS, AEE, and WMI; they are refined through organizational experience and assessment. Ultimately, they reflect the best practices used throughout schools that offer backcountry adventure to their students as a learning tool.

### **Activity Management**

Here, I quote verbatim the *2008 Outward Bound Staff Manual*:

“An Outward Bound course is a non-stop series of simple and complex activities that must be managed for risk. For instance, the seemingly simple activities of setting up camp, cooking dinner, reading a map, leading a canoe expedition, conducting icebreaker games, and leaving the climbing site to return to camp all must be managed for risk in the same way that we manage risk for complex activities like crossing a lake and rock climbing.

Although it seems logical to focus primarily on high-risk activities because they involve a lot of obvious risk and require very specific risk-management attention, the vast majority of our incidents occur during innocuous activities such as cooking in camp, hiking on non-technical terrain, and playing games.”

## **Designing an Activity Safety Management Plan**

An effective risk-management plan must address how to:

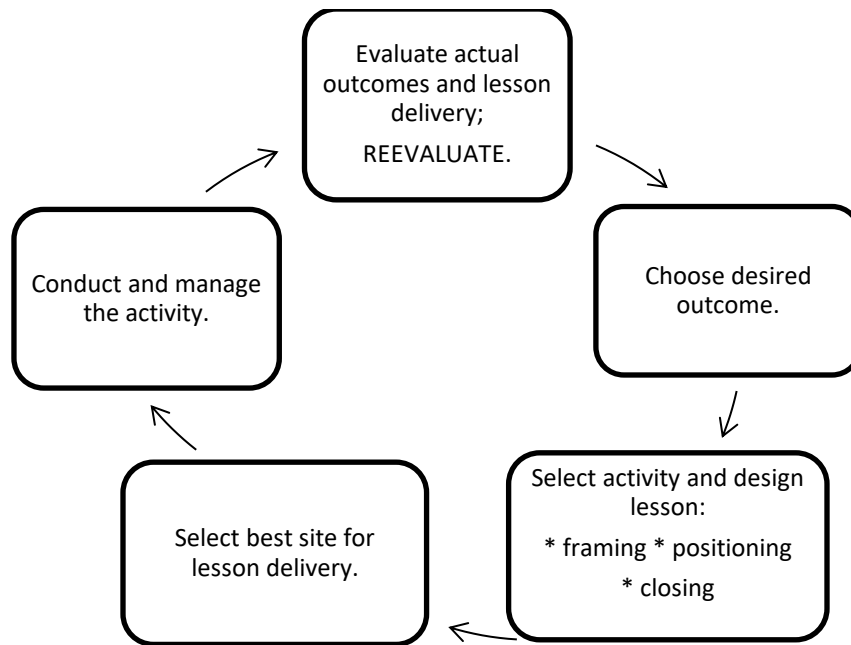
- Anticipate
- Identify
- Mitigate
- Communicate, and
- Supervise the hazards present in an activity.

When planning an activity, staff teams should follow the following steps:

1. Identify the activity.
2. Assess the hazards involved, both subjective and objective.
3. Address each of the hazards identified with specific responses—even if we may never have to enact those responses.
4. Write an Activity Plan that addresses hazards, determines staffing responsibilities, and sets a date for a pre-trip briefing and post-trip debriefing.

Once the trip is underway, staff need to reassess the plan, of course. It may become necessary to reframe and revise activities, based on new developments; slavish adherence to the original Activity Plan will not guarantee fulfilling the trip mission. But having a well-considered plan will certainly promote (though not guarantee) success.

A useful model can sometimes help staff consider what might otherwise be taken for granted. This “Design and Decision Management Model,” adapted from the *2008 Outward Bound Staff Manual*, may prove useful:



### 1. Evaluation and Reevaluation

An Activity Safety Manage Plan often begins with an assessment of the technical, interpersonal, and educational skills of oneself and colleagues. (As the top of the diagram suggests, constant reevaluating is part of this model—so an existing plan will be subject to the same intense scrutiny that a newly devised plan will be.) Beyond staff evaluation, the team will have to evaluate the surrounding terrain, along with related factors, like weather patterns. The evaluation process is a continual inventory of information that can inform staff as they design and refine a lesson or outdoor experience.

### 2. Desired Outcomes

Once an evaluation is made, staff will declare their desired outcomes for an experience—founding that outcome in the data they gathered in the initial evaluation. It is sometimes helpful to list 3 different skill sets—Technical, Interpersonal, and Educational—with the ultimate aim of taking individuals to higher levels of mastery in each.

### 3. Activity Selection and Educational Design

Once staff have determined desired outcomes, they design an activity that best supports the delivery of those outcomes. Staff will take into consideration educational structures, school norms, learning styles, individual student needs, and timing as they design the educational experience.

### 4. Site Selection

Once the activity has been designed, then staff choose—from among available options—a site that best supports their desired outcomes. If the site poses



significant risk-management concerns, then a reconnaissance of the site is warranted. During recon, staff must assess the level of risk present, both actual and perceived, paying attention to transitions (like flat to moving water, or rock to snow, for example). Worth noting: During recon, staff need to keep in mind how students will be experiencing the site; for instance, students will likely be carrying backpacks, while staff may be “squeezing in” a cursory recon *sans* pack at the end of a workday.

## 5. Activity Management

Experiential educators often use the terms **Framing**, **Positioning**, and **Closing** in their lesson design.

- **Framing** focuses the participants’ attention on the desired outcomes. Staff need to anticipate and estimate the students’ frame of reference and take into account student attention spans and learning styles when they frame a lesson. A safety briefing is often necessary, even for apparently mundane activities, and should include ways to address hazards; establish rules and boundaries; delineate safe zones; suggest strategies for the activity; describe movement to, from, and during the activity; and review clear, agreed-upon signals.
- **Positioning** strikes a balance between safety management and student independence, always with an eye toward relationship building. Even among colleagues co-leading a trip, one staff should be designated as site manager—the one who is in charge of the “big picture,” stationed so that she can observe the entire activity.  
*Questions for staff to ask themselves about Positioning:* Are you in a position to protect students if they fail or falter? Are you in a position to intervene verbally or physically if their plan goes awry? Can we staff communicate effectively with each other and with students during the activity? Are we positioned so that we can monitor and give feedback during the activity? Are all participants—students and staff—more-or-less comfortable during the activity? Is our positioning likely to contribute to relationship-building (among students and staff)? Are we positioned so that students can safely rely upon their own skills—that is, are we fostering independence among our students?
- An effective **Closing** reinforces and sometimes crystallizes the learning that recently took place. In addition, a good Closing will impel students into the future—perhaps to greater facility with an imminent task, or perhaps more generally into a newfound confidence. Usually, Closings can be concise—but if the lesson is complex and multi-layered, a more involved Closing may be in order. Ideally, the leader can link the Closing to the Framing—and prepare students for deeper reflection.

At last, we find ourselves back at the **Evaluation/Re-Evaluation** step in the model. Just as students reflect on an activity, staff need to reflect on the lesson they designed and evaluate whether students (individually or as a group) met desired learning outcomes. Did the

lesson deliver the mission of ALCS? Using this simple model, all the information from reflection and reevaluation can contribute to the next, improved version of the lesson.

## **EMERGENCY RESPONSE**

### **Decision-Making in Emergencies**

In emergency situations, it is imperative that decisions are made in a timely and decisive manner. Even if a teacher's classroom style is gentle and egalitarian, in an emergency, a trip leader needs to be direct and authoritative, even as she remains open to new information and alternatives as they arise. A confident trip leader uses her resources along with information gathered from the scene to help her weigh all her options. Efficiently, she weighs the pros and cons of all viable options, makes a decision, and then communicates that decision and accompanying directions to her crew.

Experienced trip leaders advise that, in an emergency, a *single* staff person should hold primary decision-making authority in order to keep confusion at bay. Not that the trip leader ignores input from secondaries and even students—but for the sake of managing an emergency, experience shows that a strong leader is essential. The trip leader should be designated prior to starting a trip and that designation should be explained to the entire crew before leaving for the wilderness. When the need for efficient, decisive communication comes in a true emergency, the crew won't waste time sorting through directives. On a typical backpacking trip, a chain of command is valuable and includes the primary trip leader, the secondary trip leader, and experienced, responsible senior- or junior-level students.

Supervisors at school or at a base camp in the field can certainly weigh in and, when possible, should offer suggestions for managing an emergency most effectively; but ultimately those at the scene can best understand the key relevant factors and the scope of the situation; thus, the supervisors must rely heavily on the trip leader's assessment of the scene and suggested action for providing emergency care for the ill or injured student.

### **Critical Incidents**

Maintaining calm during a critical incident is one of the chief duties of a trip leader. The paradoxical advice to "go slow to act quickly" is founded on the idea that a calm forum for decision-making is most efficient in an emergency. A confident leader asks questions—not

excessively, but pointedly—then takes a deep breath and works with his team. Here are some useful steps to consider during all critical incidents:

***Implement an initial response.***

- The leader should assess and secure the scene and make certain that other crew members and potential rescuers are not themselves in danger (from falling rocks, high-velocity water, or treacherous terrain).
- The leader should organize the response and assign tasks to crew members.
- The leader should perform emergent first aid if needed.

***Make a plan.***

- If a student or leader is injured, determine if evacuation is necessary or at least likely. If so, determine how quickly and by what means evacuation can be accomplished.
- Identify evacuation needs and key briefing points; if possible, write them down. This information will be used to obtain needed outside assistance. Each satellite phone or spot will have an emergency protocol, complete with contact numbers and communication pathways. Follow the protocol as closely as possible.

***Manage the scene.***

- Experienced Outward Bound trip supervisors note that, when working with groups, there is usually a group's worth of resources at hand to help manage an emergency. They advise that trip leaders keep everyone purposefully involved. When everyone in the crew has a purpose, all have an opportunity to contribute and to gain from the experience of lending aid. An emergency is not merely a "learning experience," or course, but it offers students a profound and frequently memorable opportunity for real-world problem-solving.

***Some tasks that need to be accomplished during critical incidents:***

- Monitor the injured student and maintain a record of vital signs. While the trip leader is almost always managing the assessment and monitoring the student, responsible crew members can record data and observe the student as well.
- Make sure the injured student is as comfortable as possible. Make sure they are warm (or cool) and protected from the environment.
- Unless there is a strong contraindication (for example, the student is unconscious!), keep injured students well-hydrated. Depending on the nature of the illness or injury, offer the student food. An exception to this basic comfort measure: If the student is likely to require surgery requiring anesthesia once he arrives at a primary-care center—and if his evacuation is likely to be rapid—it may be

necessary to withhold food and water. (The reason: general anesthesia is seldom administered to a patient whose stomach is not empty.)

- Set up camp and shelter. Cook hot beverages and food.
- Look after the well-being of all caregivers—especially those who are providing direct patient care, which can be exhausting. Make sure caregivers are fed and hydrated.
- If an evacuation is planned, organize all who will participate.
- If a helicopter is likely to provide an evacuation, prepare the landing zone.
- If law-enforcement personnel are likely to be involved in the incident at some point, identify and maintain possession of physical evidence involved in the incident (like ropes, technical equipment, stoves and fuel bottles, or personal gear).
- If the incident involved a traumatic injury, obtain written and signed accounts of the incident from all witnesses.
- In the field—and well before the incident debrief—prepare a written report of the incident. A simple, useful template is to answer “Who?” “What?” “Where?” “When?” and “How?” questions about the incident.
- If it is necessary to conduct an evacuation at night, be sure that at least one of the trip leaders remains awake; besides possibly providing care, it may be necessary for staff to listen for and signal a rescue party.

### **Responsibilities of Base Camp Supervisors**

- Do not identify responsibility for an incident to permitting agencies, law enforcement, search and rescue, media, or other outside parties. Problems often arise when an assessment of fault or criticism (of personnel, equipment, or policy) is made public without a thorough (and sometimes time-consuming) review of the incident.
- Do not release the names of injured students—except to law enforcement officials—until family members have been notified.
- Do not share information regarding the nature of an injury or illness with media until an official diagnosis by a licensed primary-care provider (physician, nurse practitioner, or physician’s assistant) has been released.
- Do not share estimates of property damage until figures have been officially released by insurance companies involved in the incident.

## **Fatality**

The word puts a pit in our stomach and we may be tempted to skip reading the next section, but we know that a fatality is a possibility on a school activity. We not only hope,

but we plan and direct our every action to prevent a student or staff fatality. Being prepared to respond to difficult—and sometimes life-threatening—circumstances is part of being an outdoor professional. Here are some principles and practices to follow if one of our students or staff dies in the field:

1. Make appropriate resuscitation efforts to preclude potential complications stemming from the presumption of death by someone who is not a primary-care provider.
2. Notify other ALCS groups in the vicinity of what has occurred. Communicate only factual information without subjective analysis.
3. In the case of an apparent fatality, leave the person's body as-is until external support arrives (unless directed otherwise, of course).
4. The person's body should be safeguarded from predators and other potential damage until it is removed by authorities.
5. If the incident site is not reasonably accessible by the Sheriff's Department within two days (including time required for notification), the following should be done before evacuating the body:
  - Take photographs and mark the incident site. Include a drawing and measurements where possible. (For example, record the distance between camp staff and the incident site.)
  - Collect any evidence.
  - If instructed to transport the person's body, use gloves and wrap the body as well as possible in a sleeping bag or tarp.

## MANAGING AN EVACUATION

### Field Communication Technology

It's worth noting that field communication technology is not a *preventative* tool and may not significantly contribute to our relentless pursuit of incident-free programs. Even when we have a satellite phone or a satellite spot with us, we must rely above all on judgment in the field. Communication technology will not reduce risk. It is in place primarily to expedite emergency care and reduce resource burden through logistical support. Freely use the technology at your disposal—always keeping in mind that satellite phones do not always work.

- Be aware of the battery life of your communication device.
- Experienced outdoor leaders advise that, prior to making a call, you should write down the information you want to convey. This includes
  - General location
  - Name of persons involved
  - Details of the situation
  - A quick synopsis of actions taken thus far in the field

- Ideal evacuation or action plan to deal with the situation and the speed of response required.

### **Sending Runners for Help**

Sometimes, field communication technology fails. If you still need to make outside contact, you will need to send runners to reach the nearest land-line.

- Do not send runners until you have conducted the initial response to the incident. Organize your group. Take a moment to determine whether your plan to access help via runners is likely to be effective. If you are sending runners to a trailhead, take the following steps:
  - Double check to make sure the incident is “under control” and that all group members understand their role in the incident response.
  - At least two and preferably three runners should be sent. Take into account local conditions (challenging weather and terrain, for instance). One of the runners must be a staff member, of course—except in *extremely* rare circumstances.
  - Runners should have written information to pass on to rescuers; a copy of the ALCS Accident, Illness, & Incident Report should be as complete as possible when sent with a runner.

#### **Runners themselves should have:**

- An adequate supply of food, water, weather-appropriate clothing, a headlamp, and bivouac gear.
- A marked map that indicates incident location, camp location (if different), evacuation route, and runner’s route.
- Runners should travel efficiently but should avoid taking risks (via shortcuts, for example). Neither should they split up. Above all, they must not create a *second* emergency!
- If the patient’s location is difficult to find, the runners should frequently observe the terrain behind (that is, toward the patient) and if appropriate, mark the route with flagging tape.

### **Evacuation Techniques**

Determining the most efficient and effective method of evacuation will be contingent on a leader’s assessment of local resources and conditions. That is to say, the leader must assess his crew, his equipment, the weather, the terrain, the distance from primary care, and the nature of the illness or injury. Again—regardless of the urge to act quickly—it is essential that the team takes time to think clearly and plan carefully. Field communication devices are invaluable in helping staff gather information and advice from base camp when making decisions.

If the injured or ill person is ambulatory and is not likely to cause further injury when walking, ambulatory evacuation is the best option. Improvise a cane or crutch or ask team members to support the evacuee as they walk.

If the evacuee is not ambulatory, then consider the following options:

- Convey the evacuee by carrying, paddling, or skiing the patient to a road or a faster means of transportation. Either a private vehicle or an ambulance is viable transport.
- If the evacuee is a significant distance from a road, convey him to a landing site for air transport.
- When reasonable, wait for additional human-power and equipment to aid in transporting the evacuee.
- In winter, consider the option of transporting via snowmobile or sled litter.

Regardless of the evacuation technique you use, it is imperative that you stabilize the patient before transporting her. You must also continuously monitor the evacuee's condition throughout the evacuation. The leader must also determine whether it is preferable to evacuate the entire group or to split up. If the group is split up, each student group must have appropriate supervision and first-aid expertise available.

### **Types of Carries**

- Piggyback carries may be appropriate when the traveling distance is short and the evacuee is small of stature. Carriers must take care to prevent injury to themselves.
- Fireman carries (across a carrier's shoulders) may also be appropriate for short carries.
- Carrying the patient on a litter has safety advantages, but constructing a litter is time-consuming. Incidentally, constructing a litter and conducting a mock litter carry can be an educational, team-building exercise. According to field experts, actual litter evacuations require extensive preparation and a high level of teamwork and communication. In an actual evacuation, a (brief) framing activity that allows each team member the opportunity to voice their thoughts can be beneficial to all. Doing so allows staff to address concerns, thereby contributing to evacuation success.

When conducting a carry, consider:

- The comfort of the evacuee
- The role of the leader
- The role of different carriers around the litter
- Methods of coordinating movement around the litter
- Switching bearers
- Easing shoulder and back stress *en route*.

Some general guidelines for litters:

- Construction must be sturdy.
- The litter must be adequately padded for evacuee comfort.
- The evacuee must be strapped in securely.

Once the evacuee is ready for transport,

- Designate a leader for the carry.
- Organize and coordinate movement of the litter, switching off litter bearers, route-finding, and transporting additional equipment, like packs, first-aid kits, or portable shelter.
- Shoulder and back stress can be reduced by using a piece of webbing tied to the litter's side and carried over the bearer's shoulders.

A "pole stretcher" can be made quickly from two poles with a tarp or sleeping bag and rope. Be sure to cross-lash the poles securely.

### **Aircraft Evacuations**

Because aircraft access into remote locations is often hazardous, aircraft evacuations should be avoided if other means of handling an emergency are available. In addition, crews should develop alternate plans in case terrain and weather conditions do not permit flying or landing. When assessing a potential aircraft evacuation, consider:

- whether there is an even faster or safer means of handling the evacuation. In the end, it may be that carryout to a nearby road is preferable;
- whether there is an adequate and accessible landing site;
- whether the weather and general visibility are suitable for aircraft operations;
- whether an aircraft evacuation is warranted; to answer this question, it's often best to seek medical advice.

Let your "Accident, Illness, & Incident" report form guide you when conveying information about the evacuation to aircraft personnel. Mention changes in the evacuee's condition since evacuation began. In addition, mention equipment you have brought along with the evacuee (a backpack, a sleeping bag, a glucometer) and any anticipated gear needs for the final approach to the landing site.

Helpful to the flight rescue team and dispatchers are latitude and longitude coordinates, as well as other means of location, like bearings in relation to a familiar landmark. When possible, provide additional data about:

- terrain and elevation at the landing site;
- size and condition of the landing site;
- potential obstructions for landing or to hovering—for example, power lines, fire towers, trees, and peaks;
- weather at the landing zone, including cloud ceiling, visibility (how far can you see?), restrictions (clouds, smoke), wind direction and velocity, and temperature. Note: according to Outward Bound, helicopters will not fly with less than a 500-foot ceiling, with less than a half-mile of visibility, in winds over 50 mph, and in hail or thunderstorms. Flight crews may be willing to wait out brief thunderstorms before attempting transport.

These additional factors must be considered as well:



- Helicopter landing zones should be rectangular and at least 100 feet by 100 feet. The slope should be less than 8 degrees. Ground obstructions (like shrubs and mounds) should be less than 18 inches high.
- Helicopters need to land and take off *into* the wind.
- Uneven terrain can cause wind turbulence.
- Helicopters cannot actually land and lift off vertically; they require a 15-degree angle of elevation from the landing spot and must clear all barriers by at least 10 feet.
- In order of preference to most pilots, landing zone surfaces include grass, asphalt, concrete, gravel, slick rock, dirt, loose soil, and sand.
- The best helipads are located on exposed ridges and rim tops, offering a 360-degree choice of landing and lift-off direction. Pilots prefer a spot where a “drop-off” is possible for liftoff.
- In deep canyon bottoms, helicopters will need a long forward run in order to pull out or a wide enough area in which to circle and gain elevation.
- Landing zones are sometimes marked with smoky fires 50 feet to one side and downwind of the touchdown spot. The smoke can provide information to the pilot about wind speed and direction—but the smoke must not obscure the pilot’s vision.
- When possible, mark each corner of the landing zone with a flashlight at night. If two vehicles are present, they may position themselves to mark the landing zone’s center with criss-crossing headlight beams.
- Clear the landing zone of all loose objects and brush as best as you can.
- When loading an evacuee, approach the helicopter only from the front and only when directed to do so by the pilot. Make sure you are accompanied by a crew member. **Never approach from the rear.**
- Never point lights directly at the helicopter.
- Never approach the helicopter from the uphill side when it is on a slope.
- Those in your crew who do not have responsibility for patient transport should keep back from the helicopter at least 100 feet.
- Crew members should remove their hats and secure all loose clothing and gear. Carry your gear in your hand, not on your back. No gear should be extended higher than your shoulder.
- Remove all tarps and secure all ropes.
- Wear glasses if available and beware of flying objects.
- Crew members should protect their eyes and ears.
- If a helicopter must lower a winch line, it must touch the ground in order to discharge static electricity before anyone touches the line.
- Only flight crew members open and close aircraft doors.
- Patient loading is accomplished from the left side of the aircraft, evacuee’s feet first.
- Protect the evacuee during the transfer; loud noise from the helicopter can prompt nausea. Protect the evacuee’s eyes with sunglasses. Make sure the evacuee is completely secure; check for loose straps and ropes dangling from the litter.
- Present the flight nurse with data from the Accident, Illness, & Incident Report.

## SEARCH AND RESCUE

### Lost vs Late

Leaders should instruct their students to consider themselves **late** if they know where they are but are unable to make a scheduled contact. Once students reach the intended rendezvous point, they should remain at that location till contact is made.

Leaders should instruct their students to consider themselves lost if they are unable to confidently determine their location. If lost, students should put themselves in as visible a location as possible near the point where they admit that they are lost. They should stay put and await rescue.

Outward Bond states firmly, “There is generally little excuse for being lost, if by *being lost* one means not knowing where one is. Students are instructed in map and compass. Staff should be certain of student abilities before the crew is allowed to be on its own.”

Students should appreciate the seriousness of missing scheduled contacts. They need to know that search procedures will be initiated 12 hours after missing a checkpoint. For this reason, lost students should contact staff as quickly as possible—which is often by getting to the missed checkpoint promptly.

### Search

If a student goes missing, or an entire crew misses a scheduled rendezvous, staff should confer and determine an appropriate course of action. Program supervisors must be notified when the crew is or will be 4 or more hours late for a rendezvous or checkpoint. Depending on circumstances and local conditions, trip leaders may want to notify supervisors even sooner.

There are several methods used when searching for a missing person in the wilderness. Most often these methods are used in a sequential way, beginning with a broad search that checks likely locations and continuing with more and more detailed search methods as each level of search proves unsuccessful.

### Initiating a search

Once we determine that a student is missing, we should circle up our crew and begin the following procedure:

1. Designate one staff member to be the Search Commander, so that there is a single person who has all the information and keep her eye on the “big picture.” The Search Commander should monitor the search from a central location.
2. Gather the following information:
  - When and where was the student last seen?
  - What were they doing when last seen?
  - What was their emotional and physical state?

What clothes were they wearing?

What gear were they carrying?

Did they have food and water? How much?

What kind of footwear did they have? Is the shoeprint recognizable by anyone in the group?

3. Begin documenting the search as soon as possible, keeping detailed records on times and areas searched, clues found, and the like. This record will be maintained until the missing person is found.
4. Assign search teams. Considerations include:
  - Teams should be composed of at least two people.
  - Team members should be assessed for their emotional and physical condition; only reliable people should be members of search teams.
  - Before sending out a search team, give a detailed briefing regarding the area where they are to search.
  - Assign return times.
  - Search teams should carry the following:
    - A map of the search area
    - A compass
    - A whistle
    - A headlamp or flashlight
    - Rain gear
    - Filled water bottles
    - A first-aid kit

After initiating the search, continue to gather more detailed information from the reporting party, other trip leaders in the area, and your crew. Interview everyone more thoroughly, while the information is still fresh and before they corroborate with others. Interviewing should continue until you locate the subject. Some tips for conducting effective interviews:

- Interview witnesses separately.
- Beware of forming your own conclusions and then gathering or interpreting information to support it.
- Conflicting data is common. Evaluate differences and verify information.
- Ask open-ended questions. Attempt to read the reporting party.
- Gather as much information as you can with regard to the subject at the Point Last Scene (PLS). Re-ask the questions above in “Initiating a search” item 2. Then ask, “Have you noticed any recent changes in behavior? How do you think he will react to being lost? What are matters like at home these days? Has this person ever run away before?” Students will often have wealth of information about their lost team member. It’s up to us to gather than information.

### **Swift-Response Search**

The efficiency and usefulness of the hasty search team is based upon speed of response and accuracy of first-hand information assembled at the scene. Search teams should begin at the place last seen (PLS) and should search those areas most likely to produce a lost person.

The hasty search should be completed within approximately two hours. Hasty search guidelines include:

- systematically searching the boundaries within which the person is thought to be lost.
- using natural barriers like rivers, lakes, cliffs, swamps, thick forest, willows, and roads to reduce the likely search area.
- identifying areas of special interest (caves, mines, waterfalls, for instance), keeping in mind that such details may be used for a more detailed search later.
- looking for tracks or disturbances in vegetation;
- gathering evidence without destroying it; ideally, only one individual should handle physical evidence; a witness should record all physical evidence the team finds;
- preserving the integrity of the PLS in case search dogs are brought to the scene; use gloves to handle and package scent articles in a sealed, unscented plastic bag.
- using attraction (voices, whistles, lights, for example) near the PLS in an attempt to make contact; searchers should be listening and not carrying on conversations with others.

### **The General Search**

If the Hasty Search proves unsuccessful, a more thorough search should be initiated. (The Hasty Search may not be initiated if the Search Commander has evidence that the lost student is in the immediate area.) A General Search is more systematic and detailed than a Hasty Search; it involves creating a line of searchers (perhaps an entire backpacking crew) who remain within auditory range of one another.

Before beginning a General Search, the Search Commander should take time to review the data he has gathered so far and use that data to determine the most promising areas to search.

Guidelines for a General Search are as follows:

- Brief searchers on the boundaries of the area and the search pattern to be used.
- Form a widespread line that covers the search area. Searchers should be spaced far enough apart to cover the greatest area possible while still remaining within sight of those on either side of them.
- Searchers should move in a more-or-less straight line, moving from one of the search areas to the next (under the direction of the Search Commander).
- On a regular basis, team members should call for the missing person—being sure to pace the calls so that a response can be heard.
- The team should continue to look for clues and evidence throughout the General Search.

### **The Fine Search**

If the General Search is not successful after a period of time that the Search Commander deems sufficient, then the Search Commander gathers the search team and undertakes a Fine Search. Like a General Search, a Fine Search relies upon searchers forming a line, but

during a Fine Search, the team lines up so that they are close enough to ensure that an unconscious person could not be missed. Searchers should scour the area, following these principles:

- When the team forms a line, each member should be able to see clearly the searcher to his immediate right and left.
- The first searcher in the line (that is, either on the far left or the far right of the search line) follows a designated barrier denoting a boundary line.
- The search line moves forward, parallel to the established boundary line.
- The Search Commander stops the team at pre-determined intervals to confirm the presence of all team members, to request that all searchers perform a visual sweep, and finally to request that all members call out (briefly and loudly) for the lost person.
- When the search team encounters an area of debris, they should search through and around the area—remaining aware that they might encounter wildlife (snakes, stinging insects, for instance) in the debris.
- The person furthest from the first searcher (that is, the one who establishes the search boundary) should mark his path with flagging tape, thereby creating a new boundary.
- When the search team reaches the end of their designated search area, the entire line of searchers rotates around the last searcher in line and proceeds in the opposite direction along the newly marked boundary. (The path of the team is something like the path a farmer’s disc plough makes when he comes to the end of a furrow.) The searcher who hung the flagging tape now retrieves the tape, and a new “boundary man” marks the edge of the next search area with flagging tape.
- The Fine Search is repeated until the missing person is located or until the Search Commander calls off the search.

## **RECORDING EVENTS**

The forms we use to manage risk at ALCS not only help guide care in the field, but they also, in a sense, “guide care” for the health of the entire risk-management program. Risk management at ALCS cannot improve if it does not keep records of injuries, illnesses, and mishaps. The Risk Management Committee must review its records periodically and evaluate current policy in light of their findings.

What follows are some of the key forms that we staff use at Aldo Leopold Charter School:

- A. Accident, Illness, and Incident Report
- B. Minor Injury and Illness Report
- C. Post-Trip Debriefing Form



## ACCIDENT, ILLNESS and INCIDENT REPORT

Use this form when assessing ill or injured people in the backcountry, or when transport to a hospital is likely to be delayed more than an hour. If a patient must be transported, copy information on this form onto a second report so that messengers may convey information to medical or Search and Rescue personnel. In the event of multiple injuries among members of your party, complete one report form for every backcountry patient.

**FIRST PRIORITY: Safety of the patients and rescuers at the scene. Be deliberate. Take universal precautions. Ask yourself, "Are Emergency Medical Services more than an hour away?"**

**Overall SUBJECTIVE description of the incident (focusing on Method of Injury)**

1. Is the patient **Alert & Oriented** x 1 2 3 4
2. What happened?

3. When did it happen? Date \_\_\_\_\_ Time \_\_\_\_\_

4. Where did it happen?

5. To whom did it happen?

6. Apparent Method of Injury:

7. Witnesses: 1. \_\_\_\_\_ 2. \_\_\_\_\_

**PRIMARY survey (Remember A,B,C,D,E.)**

Airway: \_\_\_\_\_ Breathing: \_\_\_\_\_ Circulation (bleeding): \_\_\_\_\_

Disability (esp. spine): \_\_\_\_\_ Environment: \_\_\_\_\_

**Symptoms of ILLNESS or description of INJURIES:**

Patient symptoms:

**SECONDARY survey: (Vital Signs, Head-to-Toe exam and History)**

**Level of Consciousness:** \_\_\_\_Alert \_\_\_\_Verbal \_\_\_\_In pain \_\_\_\_Unresponsive

**Skin:** pink/pale hot/cold dry/clammy **Heart rate:** \_\_\_\_ **Pulse:** Pounding/Weak

**Respiratory rate:** \_\_\_\_ **Are respirations labored?** \_\_\_\_ **Weak?** \_\_\_\_

**Significant findings from Hands-on Head-to-Toe Exam:** \_\_\_\_\_

-----  
**Was a spinal injury ruled out?** \_\_\_\_\_

**SAMPLE (Symptoms, Allergies, Medications, Past relevant history, Last oral intake, Events leading to the injury) History:**

**Incident Leader's ASSESSMENT (not *diagnosis*) of SUSPECTED INJURIES or ILLNESSES to patient:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**PLAN OF ACTION for EACH PROBLEM assessed for patient**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Injured or ill patient's PERSONAL data:**

Name: \_\_\_\_\_ Address: \_\_\_\_\_

Age \_\_\_\_\_ Sex \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Whom to notify \_\_\_\_\_ Relationship \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

**GENERAL assessment of ALL patients at the scene (fill in each blank below with a number):**

Good: \_\_\_\_\_ Fair: \_\_\_\_\_ Serious/Unconscious: \_\_\_\_\_ Deceased: \_\_\_\_\_

**PLANS for the patient:**

\_\_\_\_\_ Will remain at current location Will evacuate to: \_\_\_\_\_ trail \_\_\_\_\_ road \_\_\_\_\_ shelter

**WEATHER at the scene:**

**Temperature:** Warm \_\_\_\_\_ Moderate: \_\_\_\_\_ Cold: \_\_\_\_\_ **Moisture:** Fog: \_\_\_\_\_ Rain: \_\_\_\_\_ Snow: \_\_\_\_\_

**Wind:** None \_\_\_\_\_ Moderate: \_\_\_\_\_ Strong: \_\_\_\_\_

**Conditions:** Improving: \_\_\_\_\_ Worsening: \_\_\_\_\_

**Number of ADULT CAREGIVERS at the scene**

Beginners: \_\_\_\_\_ Intermediate: \_\_\_\_\_ Advanced: \_\_\_\_\_

**Number of STUDENTS at the scene (fill in each blank below with a number):**

Able to give care: \_\_\_\_\_ Probably **not** able to give care: \_\_\_\_\_

**Is the group capable of an OVERNIGHT stay in the backcountry?**

Yes: \_\_\_\_\_ No: \_\_\_\_\_

**Type of EVACUATION recommended by leaders:**

Walking: \_\_\_\_\_ Carrying: \_\_\_\_\_ Lowering: \_\_\_\_\_ Helicopter: \_\_\_\_\_

**NO EVACUATION** recommended at the present time: \_\_\_\_\_

**LOCATION of patient:**

UTM Coordinates from GPS or map (if possible, include a marked map): \_\_\_\_\_

Narrative description of location: \_\_\_\_\_

**Footing:** Snow: \_\_\_\_\_ Scree/Talus: \_\_\_\_\_ Brush: \_\_\_\_\_ Thick forest: \_\_\_\_\_

Boulders: \_\_\_\_\_ Trail: \_\_\_\_\_ Other: \_\_\_\_\_

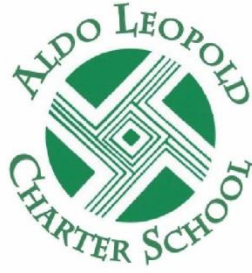
**Terrain:** Easy \_\_\_\_\_ Moderate \_\_\_\_\_ Steep \_\_\_\_\_

**INCIDENT LEADER:** 1. \_\_\_\_\_ WFR/WFA? Cell Phone ( )

**TRIP leaders:** 1. \_\_\_\_\_ 2. \_\_\_\_\_ Cell Phone ( )

**MESSENGERS:** 1. \_\_\_\_\_ 2. \_\_\_\_\_ Cell Phone ( )

**Use the space below for maps, directions, and recording any pertinent details that will aid the patient, caregivers, rescuers, and medical personnel.**



## Minor Injury & Illness Report

Name of ill or injured student or staff: \_\_\_\_\_

Name of staff who treated the injury or illness: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Assessment (describe injury or illness):

Treatment:

Further Monitoring: \_\_\_\_\_ necessary (describe):

\_\_\_\_\_ not likely

Staff signature: \_\_\_\_\_





## Debriefing for Overnight Trips

Name of event: \_\_\_\_\_  
 Dates of event: \_\_\_\_\_  
 Participants: \_\_\_\_\_  
 Location: \_\_\_\_\_

Goals for the trip (list the 3 most important):

*Possible categories: skill building, community building, knowledge acquisition*

- 1.
- 2.
- 3.

How well did you meet your 3 key goals:

Goal	Goal not met	Goal met satisfactorily	Goal met exceptionally well	Brief notes
1				
2				
3				

Review the following categories to help you recall trip events, & then list any opportunities for improvement. **Circle** categories that were entirely successful—& then use those same practices & strategies next year!

- Schedule \_\_\_\_\_
- Supervision \_\_\_\_\_
- Student autonomy & decision-making \_\_\_\_\_
- Opportunities to practice Aldo values \_\_\_\_\_
- Transportation \_\_\_\_\_
- Nutrition \_\_\_\_\_
- Safety \_\_\_\_\_
- Equipment \_\_\_\_\_
- Facilities/Value for money spent \_\_\_\_\_

Notes to guide future planning:

*Please return this form to Jim McIntosh—who will review it & return it to you.  
(Note: Jim will **not** be telling you how to run your program—but will focus on safety &  
risk management issues! Many thanks.)*

Approximate time required for debriefing: \_\_\_\_\_

Suggestions for changes to this form & the debriefing procedure in general:

# BACKPACKING RISK MANAGEMENT GUIDELINES

At the heart of the Aldo Leopold Charter School experience lies the wilderness backpacking trip. Backpacking trips are revered, feared, anticipated with both trepidation and gusto, recollected with affection, mostly—and are prepared for deliberately and thoughtfully. As we consider the essentiality of wilderness backpacking to our program, it is valuable to revisit the school's Mission:

***Aldo Leopold Charter School provides an engaging and challenging educational program emphasizing direct experience, inquiry learning, stimulation of the creative process, and stewardship of our community and natural environment.***

The school's staff believe that the wilderness is our most effective classroom, and so we prepare for our time there with one eye on the unique educational possibilities wilderness offers us—and the other on keeping our time in the backcountry a “healthy risk.”

Teaching and learning in the wilderness is not without risk of injury as we interact with an environment many of our students find uncomfortable and sometimes alien. We believe that wilderness offers a unique opportunity for students to confront discomfort, meet challenges, and learn the art of working with a team. That being said, our distance from primary medical providers elevates the risk level, since a relatively common mishap like a broken collarbone or an asthma exacerbation can require evacuation. Our responsibility as backcountry trip leaders is not to help student avoid risks altogether, but to manage those risks with professional knowledge, thorough planning, and a calm, confident presence with our young charges.

What follows is focused on risk management, rather than the rich experiential learning that our trips offer; another, later document will address that more engaging aspect of our pedagogy. Here, we focus on drier but essential material, like leader qualifications and responsibilities. Our Backpacking Risk Management Guidelines include some 55 pages of forms and lists; what follows here is a thorough but not exhaustive condensed version of those guidelines.

## **Backpacking Team Members**

***Director*** – The individual who is hired by the Governing Council as the school head. Currently, Wayne Sherwood serves in this capacity.

***Backpacking Trip Coordinator*** – The individual who fulfills all requirements and actions outlined in the *Backpacking Risk Management Guidelines* document and who reports directly to the Director. Currently, Pete Rankin serves in this capacity.

***Communications Designee*** – The individual responsible for communicating with backpack participants and, if designated by the Director, external entities (such as media professionals).

**Base-Camp Coordinator** – The primary staff who oversees Backpack Base Camp, an event that precedes the backpacking trips by three weeks or more. Currently, Jim McIntosh serves in this capacity.

**Primary Backpacking Group Leader** – The individual who is designated as the head of a backpack group and who meets the minimum qualifications for this position. Only ALCS staff members can serve in this capacity.

**Secondary Backpacking Group Leader** – The individual who is designated as the backup to the Primary Backpack Group Leader of a backpacking group and who meets the minimum qualifications for this position. Secondary leaders may be ALCS staff members or trained community volunteers.

**Backpack Component Pre-Trip Planning Checklists** – These important checklists are used as a tool for reviewing key components of our backcountry trips. While the lists are not included in this summary, they are available in Appendix B of the *Handbook*. The checklists continue to evolve as the Risk Management Committee continues to identify risks through post-trip debriefs and other means.

**Backpack Itinerary** – A written document that includes the backpacking locations, trails, intended campsites with corresponding times of arrival and departure. This plan is a subcomponent of the Trip Plan.

**Backpack Risk Management Guidelines** – It's worth noting that the BRM Guidelines were initially approved by the ALCS Governing Council and continues to evolve to reflect appropriate changes as they are adopted as best practice.

**Base Camp** – Training for all students that takes place prior to backpack trips.

**Group Norms Contract** – The operating rules that are established by each backpacking group before trip departure.

**Incident Command System** – An emergency protocol system that has been developed by FEMA. ALCS uses this system in the event of an emergency that is not readily managed by a Backpacking Trip Leader & Secondary Leader. An outline of the system may be found in Appendix C.

**Pre-Trip Backpacking Group Meeting** – A meeting that takes place prior to trip departure and is held for each separate backpack group in order to review pre-established objectives.

**Trip Plan** – The trip plan is the overall plan for the backpack trip and includes all subcomponents, such as contact information for all participants, a transportation plan, and a backpack itinerary.

**Transportation Plan** – A comprehensive plan that reviews all aspects of the backpacking trip transportation. This plan is a subcomponent of the Trip Plan.

## Qualifications for Primary Backpacking Group Leaders, Secondary Group Leaders, Students, & Non-Leader Adults

The responsibilities that Primary and Secondary Backpacking Group leaders are considerable, so it is essential that those who take on the duty of risk management and education for our students be mature, dedicated, and trained to meet backcountry challenges. The table below summarizes the qualifications for the four varieties of participants in ALCS backpacking trips:

Qualifications Summary	PGL	SGL	Students	Non-Lead Adult
Minimum age of 21	✓	✓		✓
Background Check	✓	✓		✓
Commitment to the experiential component of ALCS curriculum	✓		✓	
Signed statement agreeing to abide by ALCS rules	✓	✓	✓	✓
Signed statement agreeing to abide by ALCS RMG	✓	✓		✓
Sign statement of good health within 2 week before trips	✓	✓		✓
Signed statement agreeing to abide by Group Norms Contract	✓	✓	✓	✓
Physical exam	B	B		R
NMAA sports physical			A	
Updated health history on file, including updated emergency contact information	A	A	A	A
Wilderness First Aid training	A	A	A**	R
Wilderness First Responder (WFR) Certification	R			
Current CPR certification	B	✓		R
Map Training	✓	✓	A	R
Orienteering Training (topo, compass, GPS)	A	✓	* A	R
Search and Rescue Training	A	✓		R
Pass Safety Rules Test (100%)	A	A	A	A
Pass Leave No Trace Test (required grade)	A-90%	A-90%	A-80%	A-80%
Previous Experience on ALCS backpacking trip	✓			
Demonstrate Campcraft Skills			✓	

Complete ALCS 'Basecamp' training	✓		A	
Cleared by School Director	A	A	A	A

\* = First year and every other year

\*\* = At least 85% of student participants

✓ **At least Once**

**A = Annually**

**B = Biennially**

**R = Recommended**

## **Backpacking Group Composition**

### ***Adult Composition***

- The minimum standards for any backpack group is supervision by one identified Primary **and** one identified Secondary Backpack Group Leader who meet the minimum qualifications for each position.
- The Primary Group Leader must be an ALCS staff member.
- A group may have more than two adults. Any adult who is to accompany a backpack group must undergo a background check and be cleared by the school Director.

### ***Overall Group Composition***

- Medical and contact information is available for all participants, both students and adults.
- Maximum group size is 16 students; a minimum of two leaders must accompany each group, with an adult:student ratio not to exceed 1 adult per 8 students.
- No more than 8 individuals can camp at a campsite, including at least one adult in each group. A group of 16 is permissible only when the campsites are spread apart to reduce impact to the wilderness environment and to ensure that all are in close proximity to each other for reduced risk.

## **Program Requirements**

### ***Pre-Trip***

#### **The Director:**

- approves and files the trip permit, retaining a school copy of all paperwork.
- ensures that a Medical Advisor is on Call.
- ensures that a replacement Primary Backpack Group Leader (if available) is on call ready to be called in at any time during the trip. This individual would be hiked into meet his group by the Backpacking Trip Coordinator or the Director, and the disabled adult leader would be hiked out. If no backup Primary is available, a group may have to exit if their Primary is unable to proceed.
- establishes a list of all participants and ensures that emergency contacts are available for each participant.

- ensures each group’s emergency medical information on students, staff and volunteers is provided to that group’s Primary Backpacking Group Leader by the Trip Coordinator & Office Staff.
- ensures that the Trip Plan (in both digital and hard copy form) is complete.
- ensures that an adult leader meeting is held to review the Trip Plan, communication protocols, and any other necessary considerations.
- ensures that a contact person is established for communication with parents.
- ensures that the Trip Coordinator (or designee) posts the following information via a hard copy at the school and an electronic copy on the school website for access by parents or others prior to trip departure:
  - The Backpack Itinerary
  - A blank Pre-Trip Planner Checklist for Students and Parents
  - The name and phone number for the Communication Designee.
- ensures completion of all Pre-Trip Planners prior to the backpack groups’ departure.
- makes the final decision whether the trip proceeds as planned or is cancelled.
- assembles all trip documents, stores them in one place on school grounds, and notifies the ALCS Secretary of that location.
- Obtains a 5-day forecast from a reliable weather agency the day before the trip departs.

The **Trip Plan** should include the following:

- Backpack itineraries, including:
  - maps with proposed routes and possible alternative routes;
  - written descriptions of hikers’ travel;
  - planned tenting locations.
- Group rosters (with all participant names, including students and identified leaders)
- The Transportation Plan
- The Emergency Extraction Plan

**The Trip Coordinator:**

- maintains continual communication with the Director regarding trip updates.
- ensures that the guide permit is current with the Forest Service prior to departure; a copy of the permit is filed with the Director.
- ensures that each group is assigned Primary and Secondary Backpack Group Leaders who meet the minimum qualifications for each position; one or both must be an ALCS staff member.
- provides Pre-Trip Planning Checklists to each participant and parents.
- ensures that a Backpack Itinerary is submitted and approved by the Forest Service prior to departure.
- as advised by the Director, communicates with local agencies (local Department of Game and Fish, Silver City Fire, National Weather Service, Forest Service, & State Police) regarding:
  - Trail conditions
  - Road conditions

- Trail availability and hazards.
- plans and conducts a parent meeting to review trip particulars including how backpacking trips support the ALCS mission and curricular goals.
- ensures the following documents and information are rendered in hard copy and posted on the school website for access by parents or others prior to trip departure:
  - The Backpack Itinerary (which is posted on the school website without student names)
  - A blank Pre-Trip Planning Checklist for Students and Parents
  - The name and phone number for the Communication Designee.
- ensures the following is available in a timely and consistent manner:
  - a brief statement of inherent outdoor-education risks
  - a Trip plan
  - a list of equipment available from the school for a 4-day loan
  - a Wilderness Packing List
  - Staffing for each trip
  - Routes
  - Backpack Risk Management Guidelines
- Completes the Transportation Plan and obtains Director approval for the plan; the Transportation Plan includes:
  - A driver list with contact information for each driver during the trip, which should include at least one cellphone number for communication *en route* to and from the school, and in addition, one radio channel for vehicle-to-vehicle communication as back-up to phones.
  - A passenger list for each driver that also shows the vehicle to be driven
  - A description of the driving routes
  - Planned departure times with estimated driving times
  - A map of road routes to be taken that shows any pre-planned stopping points
- ensures that school vehicles are fueled, are in good working condition, and have received a pre-trip inspection within one day prior to departure.

### **The Outfitter**

- It is the responsibility of the individual who holds the outfitting guide license for Aldo Leopold Charter School to ensure that his or her license is current and that any pertinent information is conveyed to the School Director and to the Primary Backpacking Group Leaders who are operating under the guide's license.

### **Base-Camp Coordinator**

The Base-Camp Coordinator oversees Backpacking Base Camp during the first month of school. Base-camp training shall minimally include the following:

- Annual training for new and returning students who are to participate in a backpacking trip. (Note: Any student who does not attend Base Camp and plans to go on the backpacking trip must be granted an exception by the Director.)
- Wilderness First Aid training (*Minimum* 85% of participating students).



- Orienteering training (topo, compass, GPS), which will be offered every year; no student may miss Orienteering training for two consecutive years and still participate in the trip.
- Campcraft skills, to include setting up a tent, using a camp stove, packing a backpack, and using water filter systems.
- Safety Rule Test, with a score of 100% (annually).
- Leave No Trace Test, with a score of 80% or better (annually).

**The Coordinator:**

- conducts an evaluation of all students' physical endurance capabilities and attitude, with input from ALCS staff who have worked with students during Base Camp.
- in consultation with student council and other staff, develops groups for backpacking trips from information gained at Base Camp, health information, and other information that has been identified as pertinent in determining the fitness, capabilities, skills, and attitude of each student. Student dynamics should be a consideration.

**Primary Backpacking Group Leader**

- The role of the Primary Backpack Group Leader is, of course, highly reliant on the Backpack Trip Coordinator and school Director. At the same time, Primary Leaders are fully responsible for the health, safety and wellbeing of their group members. As such and as a method of checks-and-balances, it is their responsibility to ensure that pre-trip plans have been fulfilled *prior* to departure.

***Prior to the Pre-Trip Backpack Group Meeting, the Trip Leader:***

- reviews the Trip Itinerary and communicates any corrections, reservations, or concerns with the Trip Coordinator, especially with respect to trail travel times and campsite set-up/breakdown, ensuring that there is daylight to spare.
- establishes familiarity with the roads that are outlined within the Transportation Plan.
- scouts trails within one month prior to the backpack trip **or** demonstrates mastery skills in orienteering, map reading, and use of a GPS. If a Primary does not scout the trail, he or she is to seek information regarding trail conditions from the Forest Service or another entity that has traveled the trail within the last month. In the event that a Primary does not scout a trail prior to the backpack trip, he or she is to provide documentation to the Director of how the trail conditions were verified.
- when scouting the trail there must be at least two adult individuals (one being the Primary Backpack Group Leader) with trip notes turned into the director for approval prior to the scouting expedition. The trip notes should include a timeline of departure and arrival from the trailhead. (This protocol is established for staff safety and is good practice anytime one enters the backcountry.)
- reviews trail responsibilities and navigation devices (radios, GPS, compasses, maps) with all team members. Some responsibilities may be delegated at the backpack group meeting.

- considers and reviews trip conditions (including trail conditions, weather, fire, wildlife, river levels, and road conditions) and other special concerns.
- receives appropriate trainings as needed.
- plans curriculum time during the trip with the Secondary Group Leader.
- develops or reviews menus to ensure that adequate food is provided for each group.
- Establishes familiarity with communication devices (satellite phone/two-way satellite pagers, and walkie-talkies) and demonstrates an understanding of expected communication routines.
- plans for general student needs (dietary, physical, and psychological).
- reviews special needs of individual students.

**The Pre-Trip Backpack Group Meeting:**

provides sufficient time (two hours minimum) for group discussion and review of the following:

- Backpack Itinerary
- Trail maps
- Trail rules
- Lost hiker/group procedures
- Emergency Extraction Plan procedures
- General content of the first aid kit
- Curricular expectations
- Food preparation expectations
- Group Norms Contract (including safety considerations and prohibited activities)

At the Pre-Trip Meeting, with Each Individual Hiker the leaders:

- review and approve student’s backpacking clothes and personal gear.
- review group equipment needs, verifying that assigned equipment is in good working order and is appropriately suited to specific groups.

**After the Pre-Trip Backpack Group Meeting and prior to departure,** the Primary Leader:

- reports all pertinent updates to the Backpack Trip Coordinator.
- ensures that the Trip Itinerary has been reviewed and that a copy is packed.
- ensures that the Secondary Group Leader, student, and parent Pre-Trip Planners are completed and returned to the Backpack Trip Coordinator.

**The Secondary Backpack Group Leader:**

- completes any necessary training to meet minimum qualifications for her position and receives approval from the school Director.
- participates in pre-trip planning.
- plans field curriculum during the trip with the Primary Group Leader.
- reviews special needs of individual students.
- becomes familiar with first-aid kit contents and knows who within the group has first aid training.

- becomes familiar with use of and routines for communication devices (satellite phone/two-way satellite pagers, and walkie-talkies).
- becomes familiar with hiking conditions and any special circumstances she might encounter within the trip area.
- becomes familiar with her own group's maps of the hiking areas and general knowledge of other ALCS backpacking group's locations.
- participates in the pre-trip group meeting.
- reviews equipment needs, verifying that equipment is in good working order and is appropriately suited to her specific group, and that she knows how to use the equipment and is familiar with communication routines.
- becomes familiar with Transportation Plan.
- assures that trailhead locations are clearly known.
- verifies with the Primary Leader that he has submitted the completed and verified Pre-Trip Planners for the Primary Backpack Group Leader, Secondary Backpack Group Leader, students, and parents to the Trip Coordinator.

### **Students**

***Please be mindful that each high school student's backpacking trip participation is a school expectation.***

#### **Beginning of the school year**

- Participate in the Basecamp training. (Any student who does not participate in this annual training must gain Director approval to participate in the backpack trip).

#### ***Prior to the Pre-Trip Backpack Group Meeting:***

- report special concerns (dietary, physical, medical) to the Primary Backpack Group Leader, school nurse, Trip Coordinator, or School Director.
- gather all required equipment from the Packing List for Backpacking (see Appendix D) and bring gear to school for pre-trip backpack group meeting.
- submit any necessary signed permission slips to the Primary Trip Leader.

#### ***Pre-Trip Backpack Group Meeting:***

- participate in the trip briefing (including trail map review and discussion of any special concerns).
- review lost hiker/group procedures.
- review and rehearse the Emergency Extraction Plan.
- become familiar with first-aid kit contents and know who within the group is trained in first aid.
- participate in the Group Norms Contract.
- show all required equipment to the Primary Backpack Group Leader or Secondary Backpack Group Leader.

### **Parents & Guardians**

***Please be mindful that each high school student's backpacking trip participation is a school expectation.***

**Parent should:**

- ensure your student participates in the annual Backpacking Base Camp training. (A student who does not participate in this annual training must gain Director approval to participate in the backpack trip).
- review equipment needs. Verify that equipment is in good working order and is appropriately suited to specific student needs. Ensure that your student gathers all equipment prior to the Pre-Trip Backpack Group Meetings. Seek any necessary clarification from the school.
- update the school with any changes in your student's medical information or changes to emergency contact information.
- report special concerns (dietary, physical, medical) to ALCS.
- ensure that your student participates in the Pre-Trip Group Meeting.
- ensure that any signed permission slips and equipment-signout or rental checklists have been submitted for the backpack trip.

## **RIVER AND STREAM-CROSSING GUIDELINES**

Most stream crossings are non-technical, and all stream crossings necessary during ALCS-sponsored activities must avoid the use of technical systems (for example, a swiftwater zipline), unless use of such a technical system is for the purposes of rescue or is part of a supervised, licensed water activity endorsed and vetted by the Risk Management Committee.

Staff will physically reconnoiter, assess, and supervise all potentially hazardous stream crossings. "Potentially hazardous" stream crossings would involve water:

- moving faster than a walking pace;
- flowing above the knee of the shortest member of the team; and
- having a forceful undercurrent or unpredictable path.

Students must not be attached to a rope during a river crossing.

If staff believe that a stream crossing offers a great enough potential for head injury that helmets must be worn, then the crossing should not be attempted as part of a backpacking activity. If students are fording a whitewater current during a rafting activity and are wearing a helmet as part of that activity, they may cross a swiftly moving stream if they are wearing a safety vest as well and are supervised by an instructor.

Before leading students across a river crossing, the adult leaders should survey 50 meters downstream to make sure that no strainers, no dangerous rapids, and no other obvious water risks are present.

If backpacking teams (or students on any other outing) are swimming recreationally, they should avoid swimming in swiftly moving water (unless they are wearing a life vest).

If students are swimming in water that has the potential to move them downstream with some force, staff should keep a throw bag within arm's reach and serve as an onshore lifeguard for all swimmers.

If staff do not have a throwbag on a trip, their students may swim in calm water only and must not venture into water that is deeper than chest-high.

Students should never enter water without a staff member present.

## **WATER ACTIVITIES GUIDELINES**

For many students, water sports are exhilarating. Memories of beach swimming, sea kayaking, snorkeling, and river rafting endure as trip highlights. But it's worth remembering that, since ALCS students live far from the ocean (and other large bodies of water, for that matter), many of our students are not strong swimmers and may even show discomfort with water activities. At the same time, peer pressure can force some students (and even staff) into foregoing confession of discomfort or inexperience in the surf and currents of risky waters. Thus it is that staff must build water-comfort and swimming-skill assessments into their activity schedule. Water safety instruction and assessment takes time and should not be hastened in the interests of "giving kids as much time in the water as we can." When feasible, safety instruction and assessment should be undertaken before trip departure.

Since water activities—including snorkeling, swimming, rafting, and kayaking—vary in their risk levels (depending on site conditions, staff and student experience, and available supervision), it is impossible to write a one-size-fits-all-situations policy. The following guidelines are intended as a preliminary set of principles to establish safety parameters for staff guiding students in water activities.

All student participants should complete the written Water Safety Test as well as a Swimming Skills Practical Test under controlled conditions (either in a swimming pool or in very calm water that offers a shallow, predictable base). No student may begin an excursion on water without first completing the Swimming Skills Practical Test with a staff member.

### **Swimming**

*ALCS policy is based on American Red Cross guidelines.*

1. All staff will survey the swim site (ocean, lake, stream, or pool) before students enter the water, establishing swim area parameters and surveying weather,

- currents, water depth, staff limitations, and student comfort with the activity and site.
2. Before students enter the swim site, staff should review with all participants
    - a. the buddy system protocol;
    - b. hand signal for distress (smacking the surface of the water);
    - c. identification of risks, including marine life, currents, the presence (perhaps suddenly) of boats, and natural or human-made structures; and
    - d. respect for ecosystems present at the swim site.
  3. Ideally, students will swim at lifeguard-protected beaches. If staff deem conditions sufficiently safe (limited surf, clear weather, absence of undertow, freedom from boat traffic) on an unguarded beach, they may serve as an onshore lifeguard if they can pass the Swimming Skills Practical Test with a “Strong Swimmer” rating.
  4. In the absence of a professional lifeguard, at least one qualified staff member must remain on shore at all times as a lifeguard for her students. The designated lifeguard must wear a whistle while serving in this capacity and must have a throwbag and a first-aid kit within reach, as well as a cell phone (in case it becomes necessary to dial 911).
  5. If students are swimming in the ocean, staff must review rip-current protocol with all swimmers before they enter the water:
    - a. If you are caught in a rip current, stay calm and don’t fight the current.
    - b. Swim parallel to the shore until you are out of the current. Once you are free, turn and swim toward shore.
    - c. If you can’t swim to the shore, float or tread water until you are free of the rip current and then head toward shore.
    - d. If you feel you can’t make it to the shore, draw attention to yourself by waving and calling for help.
    - e. Stay at least 100 feet away from piers and jetties; permanent rip currents often exist near these structures.
    - f. If someone is in trouble in the water, get help from a lifeguard. If a lifeguard is not available, have someone call 911. Throw the victim something that floats—a lifejacket, cooler, or inflatable ball—and yell instructions on how to escape the current.
    - g. When at the beach, check conditions before entering the water. Check to see if any warning flags are up or ask a lifeguard about water conditions, beach conditions, or any potential hazards.
  6. Staff will monitor weather conditions during the swimming activity.
  7. Unless they are at the deep end of a swimming pool, students may not dive headfirst into water.
  8. Staff should remind students to apply and reapply sunscreen while near the water. In addition, they should remind students to drink water regularly while participating in water sports (to avoid dehydration, headaches, and confusion).

## Rafting, Canoeing, and Kayaking

1. All students and staff, regardless of skill level and experience, will wear a Type III personal flotation device (PFD), properly fitted and adjusted, at all times while participating in any rafting, tubing, canoeing, or kayaking activity.
2. Staff and students will inspect all gear before the expedition enters the water. They should check inflatable craft to make sure that they are intact; all ropes should be examined to make sure that they are not compromised; all PFDs should be inspected to make sure that buckles and straps are intact and operational.
3. Before departure, staff will review a plan for evacuating to shore in case a student or staff member is injured or becomes ill to the point that continuing in such condition imperils the student's or the group's safety.
4. A safety briefing will precede put-in and will include instruction in properly fitting life vests, steering the craft, recovering position in the craft should a paddler leave the boat, and moving safely through the current. The group will also review non-verbal signals:
  - a. the leader raises a paddle in both hands above her head: paddlers attempt to hold their position; on a river, this may require backpaddling;
  - b. the leader raises a paddle in both hands above her head and rocks the paddle dipping it from left to right to left and so on: paddlers attempt to paddle upstream, away from a hazard or toward a safe inlet;
  - c. the leader raises the paddle high; the higher end of the paddle points to the direction (left or right) that the paddlers should steer toward;
  - d. a paddler can signal that he has received and understand the leaders signal by touching the center of his head or paddling helmet.
5. Before departing from shore, trip leaders will review the kayaking, canoeing, or rafting route with all participants using a map of the planned route. Ideally, leaders will mention significant landmarks, lunch pullout spots, and essential destinations (including put-in and pull-out points).
6. River and sea kayaking trip leaders will conduct capsize-safety instructions with all participants.
7. When conditions require technical skills or guidance beyond those typical of novice boaters (for example, navigating Class III rapids in a canoe, kayak, or raft) the school will charter boats and guides from a company vetted by school administrators.
8. When conditions do not require advanced technical skills but merely require students to paddle in calm water (rated no higher than Class II), students and staff may raft without a chartered company's supervision, provided that:
  - a. at least one staff member is present in every raft, and that staff member must have experience in white-water boating and must be able to swim at least a mile without using a flotation device;
  - b. at least one staff member in the boating party is WFR-certified;
  - c. a throw-bag is present on every vessel.
  - d. Note: if students are boating in solo or tandem kayaks, staff must maintain a ratio of 4 boats: 1 "mile-swimmer" staff member.
9. While navigating rapids, all participants will keep both legs inside the raft or inflatable kayak (IK).

10. Generally, any rafting trip that does not require a contracted guide will seldom involve significant river hazards. In the event that a hazard presents itself, staff are expected to scout the hazard before proceeding with the rest of the expedition members.
11. Staff should consistently monitor students for hypothermia. At least one staff member should carry a sleeping bag, an insulated ground pad, a tarp or rescue blanket, and a fire-starting kit on the expedition to create a “hypothermia burrito” and a warming fire, in case a member of the expedition develops hypothermia.
12. A first-aid kit must be present on all rafts or on all leaders’ kayaks.
13. A staff member should paddle a tandem kayak with one vacant spot for an injured participant. In addition, staff should carry an extra paddle in that kayak.
14. Neither students nor staff will participate in any night-time boating activities.
15. Staff-student ratio must not exceed 1:4 for any ocean kayaking.
16. Sea kayakers must remain within ½ mile of shore at all times. [Note: Outward Bound policy recommends “within one mile.”]
17. All school-sponsored ocean-kayaking experiences must take place in calm waters. If conditions should change such that wind speeds exceed 25 miles per hour, or if thunder can be heard by any participants, all students and staff must put into the nearest harbor of refuge. All route evacuations or changes of course will take place under the guidance of the trip leader. [Note: Outward Bound policy directs that when a storm is within 6 miles, the expedition must seek safe anchorage. One common technique used to estimate distance from lightning is to count the seconds between lightning flash and thunderclap, and then divide that number by 5. Thus, if 30 seconds elapse between lightning and thunder, the storm is 6 miles away. If the storm seems to be moving rapidly towards the expedition, then the trip leader should guide paddlers to safe harbor immediately.]
18. Sea kayaking groups will carry walkie-talkie radios.
19. If kayaking expeditions are using IKs, a repair kit should be on board all IKs.
20. All kayaking expeditions that travel where motorized boats are likely to be present will require all kayakers to wear a whistle for signaling motorized watercraft and fellow kayakers of the presence of those motorized watercraft. Even if kayaking on a river free of motorized watercraft, kayakers may well opt to use whistles as well, depending on water levels, weather conditions, and difficulty of navigation. Note: a signal for other water craft is 5 loud, short blasts on a whistle. A signal for “lost-and-alone” is 3 loud, short blasts on a whistle.
21. If a kayaker risks imminent collision with motorized watercraft or a sailboat, the kayaker should capsize to put the kayak between himself and the watercraft he is likely to collide with.
22. All sea kayakers on an expedition should travel in a close file so that paddlers can communicate verbally.
23. A kayak paddled by a staff member should be the first kayak into a put-out point. Staff will scout the put-out and select the best area for coming ashore.
24. Kayaks should come ashore one at a time.
25. Kayaks should be lifted rather than dragged from shore to storage—even temporary storage.



## **Snorkeling**

1. Snorkeling will occur only during benign sea conditions.
2. Staff will directly supervise all snorkeling activities.
3. Students must use a buddy system while snorkeling.
4. Beginning swimmers must wear a PFD while snorkeling.
5. Initial instruction for snorkeling will take place in shallow, protected water, not to exceed waist deep, and will precede any snorkeling by students—even by allegedly experienced snorkelers.
6. At least one staff member will supervise a snorkeling “pod” from a raft or kayak, with a throw-bag on board that craft.
7. The maximum size of a snorkeling pod is 6 students (in the water snorkeling at any time).
8. Staff will survey the snorkeling site before students enter the water, establishing dive area parameters and surveying weather, currents, water depth, staff limitations, and student comfort with the activity and site.
9. Before entering the dive site, staff should review with all participants
  - a. gear fit, use, and care;
  - b. techniques for clearing the snorkel and mask of water;
  - c. techniques for surface dives;
  - d. techniques for equalizing ear pressure;
  - e. the buddy system protocol;
  - f. hand signals (keep this simple: smack the surface of the water as a distress signal; point directionally with the whole arm to guide others in your “pod”; raise a fist to indicate stopping; and hug yourself to indicate that you are excessively cold);
  - g. identification of risks, including marine life, currents, the presence (perhaps suddenly) of other boats, and natural or human-made structures; and
  - h. respect for ecosystems present at the dive site.

## **SAFETY GUIDELINES FOR RIDING BICYCLES WITH ALCS STAFF**

ALCS staff are committed to healthy, low-carbon transportation and believe that learning to cycle safely offers students a lifelong means of local transportation and recreation. The following guidelines are focused on school trips that involve cycling but are generally applicable to cycle commuting to and from school as well. Rules for interscholastic cycle racing may be more stringent.

### ***Before riding a bicycle during a school class or event, all students must:***

- have passed the bicycle safety written, road, & trail tests with 100% within the past year.

- perform a safety inspection of their bicycle (see below).
- wear a fastened and properly adjusted helmet.
- wear a reflective vest.
- wait until given instructions by their instructor before proceeding.

**While riding the bicycle, students will observe all traffic laws, and in addition, adhere to the following:**

1. Students will not wear earbuds while cycling.
2. Students will remain attentive to their instructors and obey all special instructions as ride conditions change.
3. Whenever possible, students will depart from and return to the school parking lot behind Ritch Hall.
4. Any time students must cross Highway 180, students will dismount from their bikes, walk their bikes across the highway at a controlled intersection (that is, one with a stoplight or stop sign), and remount when they are in a bike lane or when their teacher provides an alternative plan.

### **Pre-Ride Safety Inspection (Daily)**

- Check the tires for proper inflation.
  - Check the tire treads for excessive wear or other damage, such as embedded glass or other objects.
  - Check the brakes. Spin the wheels to check for rubbing and then apply the brakes to ensure they stop the bike smoothly and evenly. Check the brake pads for excessive wear.
  - Check the cables and housing to make sure there is no fraying or splitting.
  - Check the wheel quick-release levers to ensure they are secure.
  - Check for any loose parts or other mechanical problems.
- Do a slow-speed ride and inspect the bicycle, the brakes, and the shifting before you leave.

### **Detailed Safety Inspection: (Monthly or Bimonthly)**

#### **Wheels**

- Do the wheels spin properly?
- Are wheels centered and secure in the frame? To make sure, open and close the quick-release levers while the bike is flat on the ground to seat the axle in the dropout.
- Is the wheel rim round when spinning?
- Do the wheels turn properly, without wobbling?

#### **Tires**

- Are there any bulges, cuts, or worn or bald spots?
- Are the tires firm?
- Is the tread good?
- Is the tube valve sticking straight out from the rim?

#### Brakes

- Are they working and secure?
- Are cables and casings in good shape?
- Do both brake arms move evenly?
- Do the brakes stop the bike quickly and smoothly?

#### Chain

- Is the chain in good condition? Are there any kinks?
- Has the chain been lubricated?
- Is the chain clean?

#### Pedals

- Are the pedals secure?
- Do pedals turn easily without moving from side to side?
- Are the reflectors in place?

#### Cranks

- Are the 8mm Allen crank bolts tight?
- Are the chainrings straight?
- Are the 5 mm Allen chainring bolts tight?

#### Seat

- Is the seat adjusted?
- Is the seat secure?
- Is the seat parallel to the ground?

#### Handlebars

- Are they straight?
- Are they secure?

#### Headset

- Do the handlebars turn smoothly?
- When pulling the front brake and rocking the bike front to back, is there play in the front end?

#### Frame

- Is the frame clean?
- Are there any visible cracks?
- Are nuts, bolts, and fasteners tight?
- Is the paint smooth and free of wrinkles? (Wrinkled paint may indicate frame weakness or damage.)

#### Reflectors

- Are reflectors firmly attached?

## **Safety Tips for Bicyclists (and Motorists)**

**(from [www.nmcycling.org](http://www.nmcycling.org))**

Each year more than 1000 people are killed and hundreds of thousands more are injured in bicycle collisions. Some bicycle related crashes are connected to the bicyclist's behavior,

while others are due to the motorist's lack of attention.

- Bicycle riders on public roads have the same rights and responsibilities as motorists and are subject to the same rules and regulations. Refer to the New Mexico Bicycle Statutes (last page) and become familiar with these rules.
- Motorists must look carefully for bicyclists before turning left or right, merging into bicycle lanes, and opening doors next to moving traffic. Respect the right-of-way of bicyclists because they are entitled to share the road with you.

***Here are four basic bicycling tips:***

1. Maintain control of your bicycle.
2. Protect yourself—reduce the risk of head injury by always wearing a helmet.
3. Be visible, alert, and communicate your intentions.
4. Ride with traffic.

**Maintain Control of Your Bicycle**

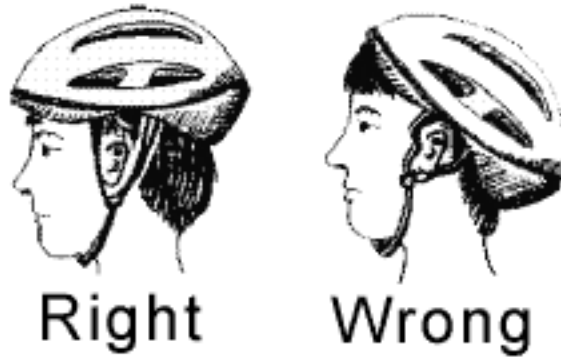
There are many things you can do to control your bicycle, even in an emergency. First, ensure your bicycle is the right size and properly adjusted to fit you. A properly fitted bicycle is easier to control, more comfortable, and causes less fatigue. A bicycle shop can help you choose the correct size bicycle. Ensure your bicycle is in good working order by inspecting it regularly.

The New Mexico Vehicle Code contains specific laws pertaining to bicycle riders. For example, it is unlawful to operate a bicycle while under the influence of an alcoholic beverage or a drug.

Convictions are punishable by a fine of up to \$250. If you are under 21, but over 13 years of age, your driving privilege will be suspended or delayed for one year once you are eligible to drive.

**Protect Yourself**

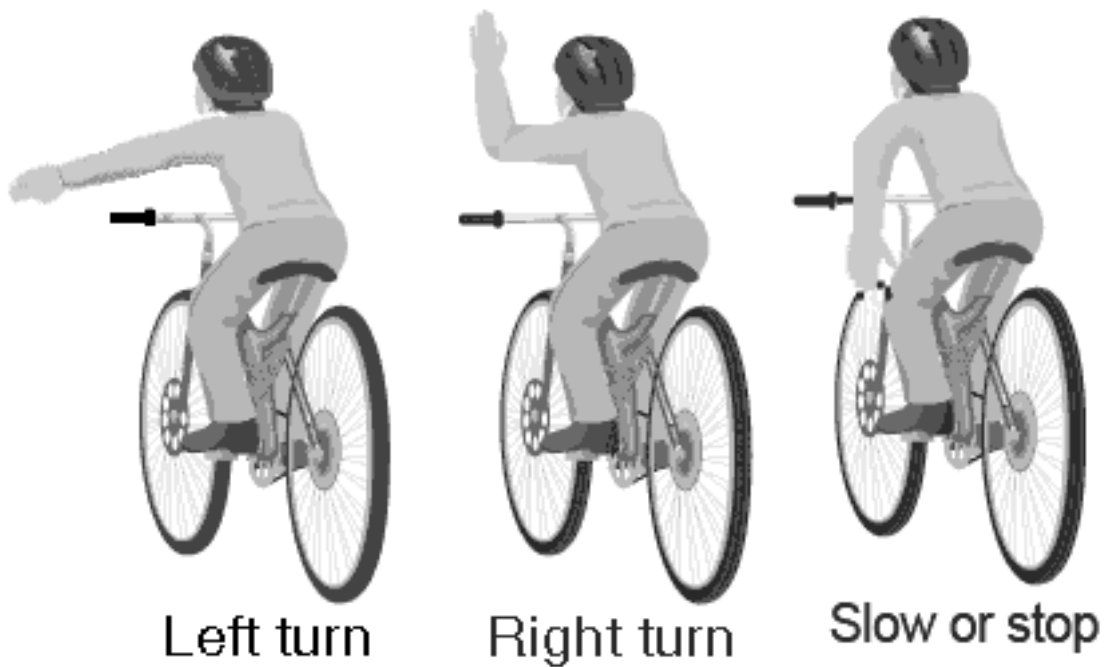
Even a simple fall can cause a life-threatening head injury. The brain is fragile and often does not heal the way that broken bones can. The damage can stay with you for life. Properly fitted helmets provide protection. By law, bicycle riders under 18 years of age must wear a bicycle helmet while riding on a public road. **Wear your helmet per manufacturer directions.**



### **Be Visible and Alert**

Even if you obey all traffic laws, there is always a risk of being hit by a motorist who is not obeying the laws, or who simply does not see you. Ride carefully—vehicles waiting at stop signs, in driveways, or parking spaces may suddenly pull out in front of you. Watch for vehicles that have just passed you and may turn right, as well as vehicles coming the opposite way that may turn left in front of you. **Be prepared to stop or take evasive action.**

Use hand signals before making turns or changing lanes to warn traffic around you. To signal a left turn, look behind you, over your left shoulder, and then extend your left arm out. To signal a right turn, hold your left arm up with your elbow bent. (You may also hold your right arm straight and point to the right.) You do not have to keep your arm extended while completing the maneuver; always have at least one hand on the handlebars to maintain control. To signal that you are slowing or stopping, extend your left arm down.



Using lights and reflectors at night is the law. During darkness, bicyclists **must** have the following equipment:

- A front lamp emitting a white light visible from a distance of 300 feet.
- A rear red reflector visible from a distance of 500 feet.
- A white or yellow reflector on each pedal or on the bicyclist's shoes or ankles visible from a distance of 200 feet.
- A brake which will enable the operator to make one braked wheel stop on dry, level, clean pavement.

Increase your visibility by wearing light or bright colored clothes, such as yellow or lime green. Red appears black in fading light and is not a good choice for riding in the evening. Mirrors provide opportunities for increased awareness of your surroundings, but use mirrors only as an aid. Always look over your shoulder to make sure the lane is clear before turning or changing lanes. Make sure your brakes are in good working order.

### **Ride With Traffic**

Ride in the same direction as traffic. This will make you more visible to drivers entering roads or changing lanes, because they will know where to look for possible conflicts. On a one-way street, you may ride on the left as long as you are riding with traffic.

### **How Far to the Right?**

Ride on the right, but not so far that you might hit the curb. You could lose your balance

and fall into traffic. Do not ride too far to the right:

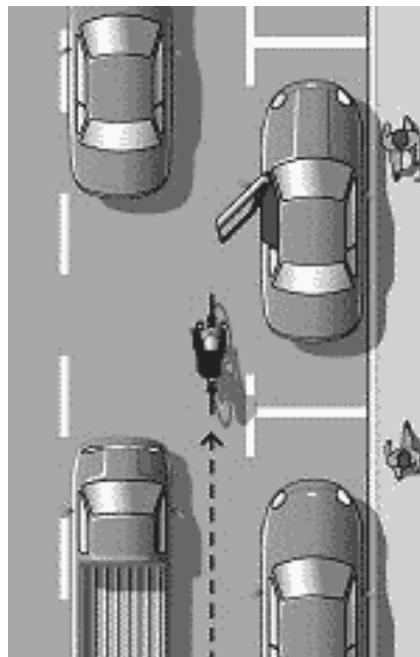
- When avoiding parked vehicles or road hazards.
- When a traffic lane is too narrow for a bicycle and vehicle to travel safely side-by-side.
- When making a left turn so that vehicles going straight do not collide into you.
- To avoid conflicts with right-turning vehicles.

## Hazards

Keep your eyes on the road ahead. Avoid running over potholes, gravel, broken glass, drainage grates, puddles you can't see through, or other unsafe road conditions. Look over your shoulder to avoid swerving suddenly into traffic. When possible, signal before changing lanes.

## Parked Vehicles

Bicyclists should ride far enough away from parked vehicles to avoid being hit by an opening door.



## When to Take the Traffic Lane

A bicycle lane is a designated traffic lane for bicyclists, marked by a solid white line, typically breaking into a dotted line at the corner. Different from a simple white line showing the edge of the road, a bicycle lane follows specific width requirements and is clearly marked as a bike lane. Many roads do not have designated bicycle traffic lanes, so bicyclists will share the traffic lane to the left of the white line. If there is no shoulder or

bicycle lane and the traffic lane is narrow, ride closer to the center of the lane. This will prevent motorists from passing you when there is not enough room. Bicyclists can travel at speeds of 20 mph, or faster. You should also use the traffic lane when you are traveling at the same speed as the traffic around you. This will keep you out of motorists' blind spots and reduce conflicts with right-turning traffic.

### **Motorists Passing Bicyclists**

Be patient when passing a bicyclist. Slow down and pass only when it is safe. Do not squeeze the bicyclist off the road. If road conditions and space permit, **allow clearance of at least five feet when passing a bicyclist.**

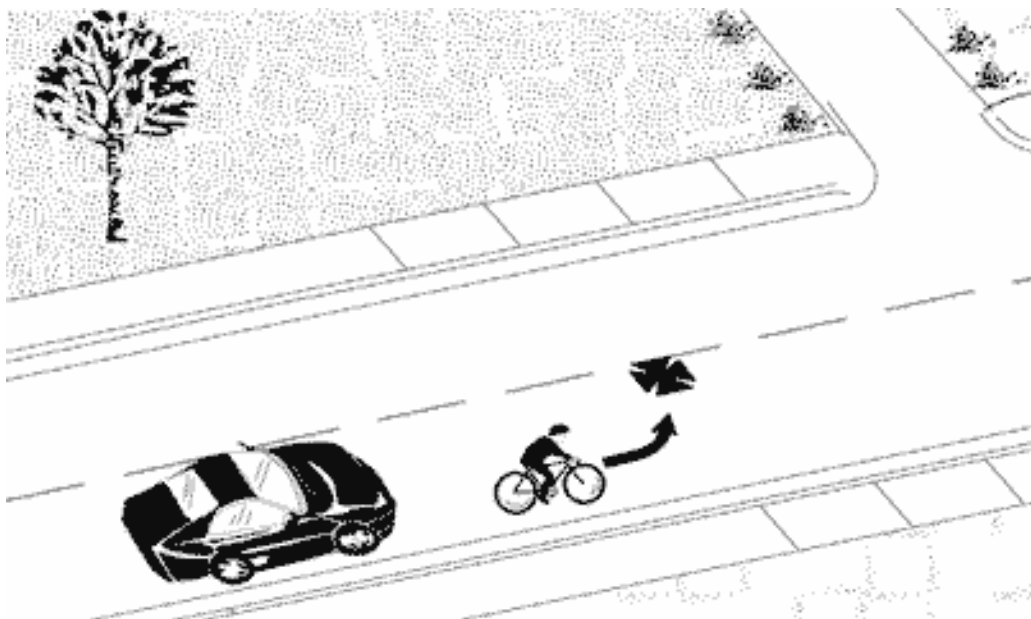
### **Obey Traffic Signs and Signals**

Bicyclists **must** obey STOP signs and red signal lights. It's a good idea to stop for yellow lights, too; rushing through a yellow light may not leave you enough time to make it across the intersection before the light changes.

### **Left Turns**

There are two proper methods for making a left turn on a bicycle:

#### ***1. Using Traffic Lanes***

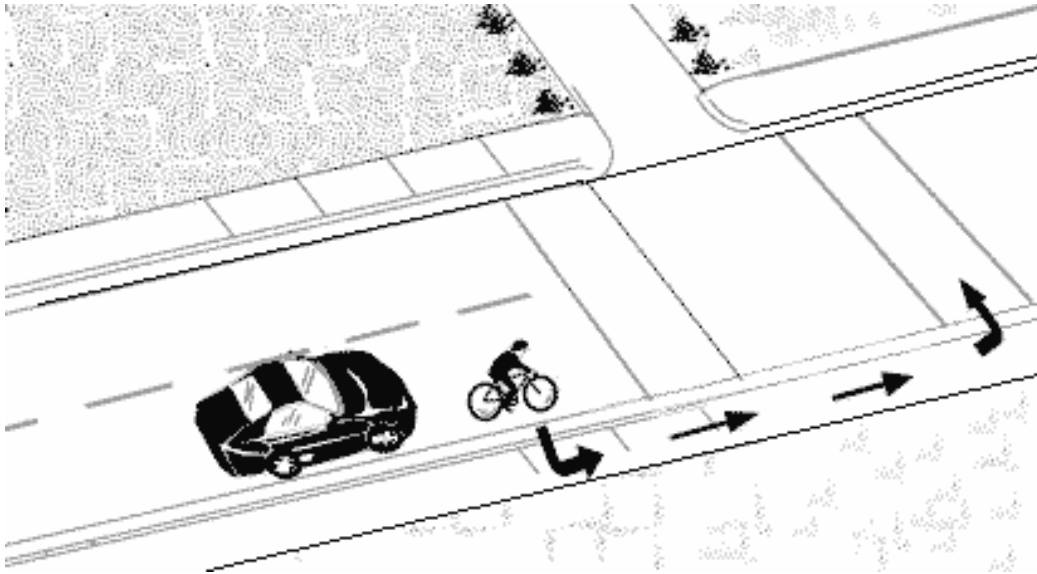


As you approach the intersection, look over your left shoulder for traffic. If clear, signal your turn and move over to the left side of the lane, or into the left or center turn lane. Position yourself so that vehicles going straight cannot pass you on your left while you are



making your left hand turn. Yield to oncoming traffic before turning. If you are riding in a bicycle lane, or on a multilane road, you need to look and signal each time you change lanes. Never make a left turn from the right side of the road, even if you're in a bicycle lane.

## **2. Using Crosswalks**



Approach the intersection staying on the right. Stop and either cross as a pedestrian in the crosswalk, or make a 90 degree left turn and proceed as if you were coming from the right. If there is a signal light, wait for the green or WALK signal before crossing. Yield to pedestrians in the crosswalk.

## **New Mexico Bicycle Statutes**

### ***Chapter 66, Article 3, Part 8 Bicycles***

#### **66-3-701. Bicycles; effect of regulations.**

- A. It is a misdemeanor for any person to do any act forbidden, or fail to perform any act required by Sections 66-3-701 through 66-3-707 NMSA 1978.
- B. The parent of any child and the guardian of any ward shall not authorize or permit any such child or ward to violate any of the provisions of the Motor Vehicle Code.
- C. These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

**66-3-702. Traffic laws apply to persons riding bicycles.**

Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle, except as to the special regulations within Sections 66-3-701 through 66-3-707 NMSA 1978.

**66-3-703. Riding on bicycles.**

- A. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.
- B. No bicycle shall be used to carry more persons at one time than the number for which it is designed and equipped.

**66-3-704. Clinging to vehicles.**

No person riding upon any bicycle, coaster, roller skates, sled or toy vehicle shall attach the same or himself to any vehicle upon a roadway.

**66-3-705. Riding on roadways and bicycle paths.**

- A. Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.
- B. Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.
- C. Notwithstanding any provision of this section, no bicycle shall be operated on any roadway in a manner that would create a public safety hazard.

**66-3-706. Carrying articles.**

No person operating a bicycle shall carry any package, bundle or article which prevents the driver from keeping at least one hand upon the handlebar.

**66-3-707. Lamps and other equipment on bicycles.**

- A. Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred feet to the front and with a red reflector on the rear of a type approved by the division which shall be visible from all distances from fifty feet to three hundred feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred feet to the rear may be used in addition to the red reflector.

- B. No person shall operate a bicycle unless it is equipped with a bell or other device capable of giving a signal audible for a distance of at least one hundred feet, except that a bicycle shall not be equipped with, nor shall any person use upon a bicycle any siren or whistle.
- C. Every bicycle shall be equipped with a brake which will enable the operator to make the brake wheels skid on dry, level, clean pavement.

## **SKIING, SNOWBOARDING, AND SNOW-BIKING GUIDELINES**

### **I. Chaperones**

Any chaperone or parent volunteer must be approved by the Director in advance of the trip to allow for adequate time to appropriately vet each individual. This practice will align to that of typical school volunteers to ensure that each individual is agreeing to and signing the ALCS volunteer form. Depending on the duties, he or she may be required to undergo a background check.

Any chaperone or volunteer whose function is to increase student skier safety on the slopes must be an intermediate-to-advanced-level skier. If she is not at this level, this individual may not be responsible for students while on the slopes. Chaperones who ski at a beginner level may be added supervision for non-skiing aspects of the activity such as check-ins at the lodge or supervision in the dormitories. Such duties should be agreed upon in advance by the chaperone, the trip leader, and the Director.

### **II. Students**

**A. Pre-Trip Expectations** – All skiers, snowboarders, and ski-bikers (hereafter referred to simply as skiers) are expected to spend their time on the slopes with not only their own safety in mind but with the group's well-being in mind. In other words, they should look out for one another and know that the school's ability to return to the slopes the following year very much depends upon their present courtesy and conduct. They should ski, snowboard, or ski-bike slopes commensurate with their skill level.

The following guidelines can help skiers make good decisions on the slopes:

- Skiers who lose their privileges by rule violation will not receive reimbursements for lost time on the slopes.
- Parents may be required to pick up any skiers who lose their privileges for the remainder of the trip when there is more than one day remaining on the trip. The final decision for pickup time will be made by the Director.
- All students will go on a school-sponsored trip with the intent to ski, snowboard, or ski bike.

- All students will observe ALCS norms and rules.
- All students will participate in and sign a full-value contract.
- All students will pass a ski safety test with a score of 100%.

**B. *Expectations While Skiing or Snowboarding***– All skiers, snowboarders and snow-bikers:

- will attend the appropriate ski, snowboard, or snow-bike school if they have never skied or snowboarded before. (Note well: if you have skied before and now want to begin snowboarding or snow-biking, you must attend ski school.)
- will wear helmets and proper snow attire (gloves, goggles or sunglasses, snow pants, and a winter jacket (or long-sleeved shirt if the day is especially warm) at all times on the slopes. If caught without a helmet the student will lose the privilege to continue skiing for the remainder of the trip, unless determined otherwise by the lead staff member. Note well: shirtless skiing is not permitted.
- will wear an ICE card at all times and display a school marking on their helmet for quick identification.
- will follow all ski-resort rules and posted signs. This includes keeping off closed trails and out-of-bounds areas.
- will ski, board, or bike to their level designated by a symbol or color (green circle for beginners, blue square for intermediates, & black diamonds for experts). If students are caught taking themselves or others beyond their ability, they will lose skiing privileges for the duration of the trip unless determined otherwise by the lead staff member.
- will use a buddy system while on slopes and in the lodge area.
- will check in face-to-face (not merely by phone or radio) regularly with staff during designated times. These times will be determined by staff and clearly communicated to student participants. Students will not ski more than 2 hours without checking in with staff or the staff's adult designee. Consequences for not checking in will result in losing the privilege of skiing for the remainder of the trip unless determined otherwise by the lead staff member.
- will not leave their buddy if injured and will flag down a passing skier or snowboarder to notify ski patrol or a lift operator.
- will report to ALCS adult leaders all injuries and accidents of any ALCS students that may have occurred while skiing.
- will, if injured, report to ski patrol for a medical evaluation. If ski patrol recommends that the student receive additional medical treatment, the student must do so. This includes recommendations to go to the nearest hospital or medical facility. Only a medical provider of a higher authority **who has seen the patient** may override this recommendation. In general, the school will err on the side of caution.

### III. General Staffing

- All medical providers or staff with medical expertise shall be identified to all skiers and fellow adults in the group. All adults will have a phone number for an off-the-slopes medical provider for any necessary consultation.
- Student-to-staff ratio will be no higher than 10:1 on the slopes. The bus driver and emergency driver cannot be counted toward this ratio.
- An activity vehicle (that is, a Suburban) will always accompany the bus as a designated emergency transport vehicle for injured students or staff. This vehicle may be used to transport gear to and from the ski area, but its main purpose is for emergency transportation.
- The designated emergency-transport driver shall be authorized to drive school activity vehicles.
- Designees will be appointed prior to the trip and will understand their role. This means that designated emergency drivers will have to drop anything that they might be doing (including skiing) to make the transport.
- The person who drives the activity vehicle to and from the ski area may or may not be the original designee for transporting an injured individual to a medical facility; however, the designee must be authorized to drive school activity vehicles.
- Any injured students or staff will be transported in the school activity vehicle unless they are transported via emergency services.
- If ski patrol personnel determine that injuries are severe enough for a life flight or ambulance, the lead medical provider will make that call; staff cannot override that decision. The lead staff (or Director) will contact the family of the injured student, inform them of the situation, and notify them regarding where their family member will be transported.
- The Director will be notified if any student or teacher is to be transported to a medical facility for any significant injuries. The Director shall be provided general information about the situation and any plans or recommendations from medical personnel.
- Adult leaders must have walkie-talkies turned on at all times to communicate with fellow school personnel on the slopes and in the lodge.
- Student medical information will be accessible to adult leaders during the trip and placed in a predetermined location for emergency access (most likely with an adult in the lodge or in the emergency transport Suburban).
- The trip leader will ask the group at the end of the day about any unreported injuries and record all information. Any injuries that could reasonably be considered an immediate threat to the health, safety, or wellbeing of the injured person will be vetted for a treatment plan.
- Staff will not schedule ALCS group trips outside of the predetermined Director approved dates (for instance, to take advantage of the group-rate specials.) No deviations may be made to “approved” schedules or plans without pre-approval from the Director, unless the Director is unavailable and not modifying a plan would reasonably create a safety threat.
- The trip leader will access a reliable weather forecast 48 hours before the trip. If there is a winter weather advisory in effect, the trip will be postponed or cancelled.

## **20 Rules for Managing Risk While Alpine Skiing, Snowboarding, or Snow-Biking**

*Excess speed and loss of control are primary factors associated with snow-skiing fatalities, according a study reported in The Physician and Sports Medicine. The study also shows that more than three-fourths of ski-related deaths occurred after collisions with stationary objects, such as trees and lift towers. Head injuries were cited most often as the cause of these fatalities.*

1. Observe all ALCS norms and rules.
2. Pass the ALCS Ski Safety Test with a score of 100%.
3. Participate in and sign full-value contract.
4. Follow all ski area rules and posted signs. Keep off closed trails and out-of-bound areas.
5. Be prepared for extreme weather conditions.
6. Stay hydrated.
7. Refusal to wear identifying ribbon or tape on helmets in order to identify ALCS students will result in ½ day of “grounding” in the lodge.
8. You are going with an intent to ski, snowboard, or snow-bike.
9. Members must commit to a day of lessons if they are a first-time skier or snowboarder.
10. Students must ski at their level by entering only slopes designated by a symbol (green circle for beginners, blue squares for intermediates, black diamond for experts) indicating their ability level.
11. When skiing or snowboarding, give moving skiers and snowboarders the right of way. You should be able to other skiers; they might not see you.
12. Always ski with a buddy and be sure that one member of each buddy pair will have a cell phone.
13. Team leaders and staff will carry walkie-talkies or phones and check in face-to-face with staff at lunch and at 2:00 PM. Fail to do so will result in grounding for the rest of the day.
14. Staff will carry medical information for all students during the trip. Make sure that your medical information is up-to-date.
15. Twice a day, check in with team leaders designated by the trip leader. If you fail to do so, you will be grounded for the rest of the day.
16. Staff and student leaders will review safety before we hit the slopes.
17. Team leaders will be in contact with each other via walkie-talkies or phones.
18. Carry your ICE card.
19. Injured students will not be left alone. Flag down another skier and ask them to seek help for the injured student.
20. A staff member will accompany injured students to the hospital if possible.

# ROCK CLIMBING GUIDELINES

*We are grateful to the graduate students in Dr. Bob Stremba's Adventure Education course at Ft. Lewis College in Durango, Colorado, for their guidance with this section of the Experiential Education Handbook.*

## **Introduction**

The following guidelines are outlined to assure that instructors and assistant instructors know the specific standards required in all top-rope rock-climbing programs. The guidelines will give leaders and participants uniformity in instruction and expectations. The specific safety guidelines will also heighten the safety and welfare of the entire group. The guidelines address instructor qualifications, the basic instructional format, pre-program preparation, group-site management, climbing procedures, accident response on the scene, and accident debriefing procedures.

## **Administration**

Staff and students in the Outdoor Adventure Program are responsible to administrators in this order:

1. Head Instructor
2. Activity Sponsor
3. Risk Management Coordinator

## **Instructor Qualifications**

ALCS hires climbing staff whose training is appropriate for the environment in which the program occurs. We seek experienced instructors who are certified at level-one Head Instructor or higher or have equivalent experience.

- Non-certified ALCS staff will serve as aides at the discretion of the Head Instructor.
- ALCS adheres to the recommended industry guidelines of one instructor to two top ropes in use, and one instructor to every two students in a lead/multi-pitch experience. Instructor Trainers can manage up to three active belay ropes at one time at their discretion.
- Instructors must have at a minimum Wilderness First Aid training or be accompanied by a staff member with Wilderness First Responder certification. Instructors and WFR-certified staff will understand the recommended progression of activities for climbing, and they are skilled in rescue techniques appropriate to the environment.

## **Philosophy**

Long experience has demonstrated the efficacy of rock-climbing activities as a way to build students' confidence, to illustrate the importance of teamwork in a climber-belayer system, and to open an avenue for a lifelong recreational pursuit.

- Suggested Progression for a One-Day Rock Climbing Experience:
- Needs assessment
- Health and release forms
- Introduction and safety talk

- Equipment talk (safety and maintenance)
- Belay school
- Stretching
- Climbing practice and demonstration
- Debrief

The *introduction and safety talk* introduces the goals of the group related to the program, reviews characteristics of the sport (particularly risk factors associated with the activity), and addresses individual considerations (clothing, physical conditioning, safety awareness, and self-evaluation of skill). Logistics of bathroom breaks and program procedures are reviewed. During the safety talk, participants are acquainted with general as well as introductory technical content appropriate to top-rope climbing and bouldering. Site management procedures, the fitting of helmets, and appropriate responses in case of rock fall are discussed as well.

The *equipment talk* introduces participants to the rope, harnesses, carabiners, and belay devices. The correct way to put on the harness is demonstrated; students can then put their harnesses on while being checked by a buddy, with the final check being made by the instructor. Reinforcement of the backup buckle and redundant safety checks is critical.

*Belay school* introduces the students to the techniques used to protect the climber with the rope and anchor system. The A (anchor) B (belay) C (climber) of the systems are discussed with a demonstration from the staff, with a focus on the PBUS (Pull, Brake, Under, Slide) system for belaying. Students then practice the stations of main belayer, backup belayer, and climber, using the appropriate verbal commands (“On belay!” “Belay on!” “Climbing!” “Climb on!”). This information can be practiced away from the wall in the format of a ground school or on the actual wall with very specific supervision from the climbing staff. ALCS staff members should provide direct supervision and be positioned to take over the belaying if the need arises.

*Climbing practice and demonstration* represents the bulk of the program. Instruction typically happens in small groups with specific supervision. Outside of the reinforcement of belay skills and supervision of the safety system, instructor and support staff can take this time to give individual instruction on climbing technique while encouraging a supportive and safe climbing environment. Climbing technique using bouldering as the medium to transfer that information can be used if the site lends itself to this technique.

Each program conclusion reviews the events of the day with the students, orients them to safe practice and participation beyond the activity, and reviews available climbing resources useful to students.

### **Pre-Program Responsibilities**

Prior to a rock-climbing program, the ALCS School Nurse and Trip Sponsor will collect and review the medical history and waiver of liability forms from each participant. This is a good time for the Risk Management Coordinator and Trip Sponsor to review the objectives



of the program, and discuss a specific progression and logistics for the upcoming events, including a discussion of the different roles they would assume in case an incident should occur. The RMC and Trip Sponsor need to designate an overall scene/group leader that maintain the needs of the entire group while the person with the most first-aid training or ability should take care of the members in crisis. The need for these two leaders to work together while sometimes acting independent of each other is crucial for the well-being of the entire group.

### **Equipment/Gear Checkout**

The Head Instructor is responsible for checking the condition of climbing equipment immediately prior to distribution to students. Before each rock-climbing lesson, the Head Instructor will review with the Risk Management Coordinator his procedure for inspecting, tagging, and repairing equipment. The Head Instructor's equipment inspection includes the following:

- Rope
- Helmets
- Harnesses
- Webbing/cordalette/anchor systems
- Carabiners/belay devices
- First aid kits/cell phones

Instructors are also responsible for checking the condition of any personal equipment, gear, and clothing supplied for participants and for determining whether the items are acceptable for use.

### **Pre-Program Checklist**

- Staff must review each student's medical history. If staff find an issue of concern in the medical history, they will ask the participant in private (before the program commences) to clarify the issue and potentially to get permission to talk to their healthcare provider. Ask if any change in health has occurred since the person completed their health form.
- Review the waiver-of-liability form with participants and discuss their acceptance of the inherent risk involved in rock climbing. (The Trip Sponsor should have a first aid kit that reflects the needs of the program and their specific training and skills.)
- Applicable rescue equipment should be onsite. The staff should be prepared to self-rescue in most situations and know the most efficient way to interface with the local E.M.S. A list of emergency phone numbers should be available in each first aid kit.
- The weather forecast should be checked each morning prior to the start of the program. This information combined with what staff have observed should be used to determine the most conservative approach for the day.

### **Site Management**

- The Trip Sponsor will approve all techniques and equipment used during a particular climbing program.

- The climbing site must be surveyed prior to climbing with a group. The site must also be approved by the Head Instructor and checked seasonally for new objective hazards.
- Safety equipment and systems must be on site and ready to be used:
  - Leader's Day Pack
  - First aid kit
  - Cell phone
  - Safety rope
  - Personal health forms and release forms
  - Leader equipment: sit harness, helmet, two Prussic slings, a belay device, three extra carabiners, and a rescue knife.

### **Safety Protocol**

- The Head Instructor will designate specific ascent and descent routes at the climbing site. If necessary, the route can be flagged or a handrail/fixed line can be deployed.
- No student can go on top of the climb without instructor supervision.
- No student will go any closer than 5 feet from the edge of the cliff without an approved belay system and instructor supervision. On cliffs with no defined edge the instructor should look at what is defined as the tripping factor and set up appropriate safety systems to safeguard student safety.
- Proper-fitting helmets must be worn by all students and staff on all boulder moves and climbs when in the designated "safety zone."
- At least one instructor will be placed around a site where they can give assistance to the mental and physical well-being of the group. This includes instructor supervision and inspection of all harnesses, knots, and belaying systems.
- Climbing will be discontinued if there is the possibility of lightning, heavy rain, or heavy snow. If thunder is audible or lightning visible, the whole party should be moved to lower ground away from high spots and equipment that could conduct electricity. Students will be instructed to avoid standing under the tallest trees and to squat down with feet facing downhill, keeping hands off the ground while sitting on something dry and non-conducting (foam pad, rope, day pack).
- All injuries must be reported on the Accident, Illness, and Incident Form (short or long form, depending on the nature of the incident) and submitted to the School Nurse.

### **Bouldering**

Bouldering is defined as rock climbing close to enough to the ground that safety can be insured by spotting. The height of the climbers should not exceed a safe spotting limit or be higher than one can safely jump back down to the ground. Students should be briefed and trained on spotting technique and responsibilities. A safe spotting limit is when the feet of the climber are no higher than the shoulders of the spotters. If this is not possible a rope should then be used to safeguard the climber.

The instructor:student ratio should be one instructor for every six students, and should not exceed this limit. Instructors should maintain visual contact with participants at all times.

Rock climbing helmets should be available for each participant. Helmets should be worn by all climbers, spotters, and any other students in an area where there is danger of rocks or objects falling.

All bouldering areas should be scouted and cleaned of loose rock before being used. The ground under the bouldering site should be level and free from hazards. Bouldering should be discontinued if the rock is wet. Instructors should have a first-aid kit at the bouldering site.

### **Belaying**

Bottom-managed belay systems are generally two equalized anchor bolts, or anchor trees with a minimum diameter of 6" for hardwood and 8" for softwood with well-anchored roots. One anchor tree may be used if it is obvious to all professionals as immensely strong (24" diameter or bigger with a solid root structure). *Note: A system of two separate anchor webbings, cordage, or static rope extending over the cliff edge with two locking carabineers situated at the master point where they connect to the belay rope is referred to as "redundancy to the master point."*

No belay should be anchored solely to pitons or bolts if the history of the protection is unknown. The instructor must use a backup. If cams or nuts are to be used as bottom-managed belay anchors, a minimum of three well-placed, equalized pieces of protection must be used for each of the two "legs of the system." In a top-managed belay anchor, three well-placed and equalized pieces are adequate.

All belay systems will be checked by an instructor prior to use. Any sharp edge where rope or webbing could make contact must be padded or avoided. Belayers should be in a straight line with the climber. There should be no slack in the belay system. In order to prevent an unnecessary pendulum effect, belayers should not let the climber climb off the direct line. The bottom of some climbs might require someone spotting, even though the climber is on belay; Head Instructor consultation is in order whenever there is a safety concern.

### **Belay School**

- An organized belay school needs to be part of any program that is going to have student belayers.
- All student belayers must be able to demonstrate their belaying ability to an instructor prior to their supporting a climber.
- All student belayers will be back-up belayed for all ALCS Outdoor Adventure programs.
- Suggested back-up belay progression:
  - Student backed up by instructor.

- Approved student backed up by student with instructor supervision.

All participants must be checked for the following items before being allowed to climb or rappel:

- Jewelry and watches should be removed.
- No sharp objects are in pockets or on clothing.
- Loose hair and clothing are well tucked in.
- Swiss seats, knots, carabiners, and helmets are secured properly.
- Voice signals have been repeated in proper format.
- The climber demonstrates understanding of the safety system.

### Communication

Communication between climber and belayer is a series of voice commands. These must be short and stated in a clear voice to offset wind and other sounds. These signals and commands should be used even when the action of the climber or belayer appears to be obvious. In high-wind situations where communication is difficult and risk cannot be adequately managed, the climbing event will be canceled.

All climbers, belayers, and rappellers must know the following signals:

Person	Voice Command	Descriptions
Belayer	“Rope!”	Running end of the rope is dropped to the climber by the belayer.
Climber	“Clear!”	It’s clear to drop the rope to the climber.
Climber	“On belay?”	Climber lets belayer know she is ready to be accepted by the Safety System.
Belayer	“Belay on!”	Belayer is ready to take responsibility for climber; Safety System is on.
Climber	“Climbing!”	Climber tells belayer she is ready to climb.
Belayer	“Climb on!”	Belayer tells climber to begin to climb.
Climber	“That’s me!”	Climber tells belayer that the tension on the rope is from her.
Climber	“Up rope!”	Climber tells belayer that there is too much rope; belayer should take up the slack.
Climber	“Slack!”	The climber lets the belayer know the rope is too tight; the belayer gives the climber the slack she needs.
Belayer or Climber	“Rock!”	Belayer or climber yells to warn of falling rock or other object.
Climber	“Off belay?”	Climber has finished the climb and would like to be taken off the Safety System.
Belayer	“Belay off.”	Belayer feels certain the climber is ready to get off belay; she will remove the Safety System.

## **Knots**

The following knots will be used in basic top-rope rock climbing:

- Figure Eight on-a-Bight: Used as a standard clip-in point for the belayer and rappeler.
- Figure Eight Follow-Thru: Standard tie-in knot for climber.
- Water Knot: The best knot for tying one-inch nylon webbing together.
- Barrel Knot: Safety backup knot for figure-eight follow-thru knots.
- Double or Swedish Bowline: Tying off climbing rope to an anchor.
- Bowline-on-a-Bight or Clove Hitch: Used for equalizing an anchor system.
- Prussic: Used for self-protection when ascending or descending (rappelling) a rope. (Also used as a clip-in on fixed lines.)
- Double Fisherman's Knot: For tying two ends of a rope of equal diameters together in a permanent fashion (like Prussic slings).
- Munter Hitch: Is approved for belaying or rappelling in an emergency. (Try to avoid it, because it can cause excessive kinking of the rope.)

Note well:

- All knots are to be backed up with barrel knots.
- All knots are to be checked by staff.

## Appendix A: Wilderness First Aid Kit Contents

Item	Removed?
First Aid Book (Buck Tilton or WFR)	
Gauze Pads (4) + 1 Roll	
Steri Strips (Use in place of sutures)	
Q-tips (for cleaning and applying ointments, like benzoin)	
Irrigation syringe or bottle of saline solution (to irrigate dirty wounds)	
Benzalkane pads (for cleaning wounds)	
Hypafix tape (1 roll; leaves a window to observe healing)	
Band-aids (12 at least)	
Moleskin (at least 2: 1 thick, 1 thin) or Duoderm (for severe blisters; 1)	
Finger splint (or Tongue depressors (3); for splinting fingers, &c)	
Scissors	
Antibiotic ointment	
Aloe vera gel (1) or burn ointment packets (5)	
Sting relief packets (5) or tube of hydrocortisone cream (1)	
Tweezers or splinter removers	
Magnifying glass	
Gloves (at least 4 pair)	
Emergency survival blanket (for hypothermia or signaling)	
Triangular bandage (for arm slings)	
ACE wrap (1 or 2)	
Safety pins (6)	
Arnica (for muscle aches)	
Tampons/feminine pads	
Alcohol prep pads (6)	
Roll of medical or athletic tape	
Cough drops (10-12)	
Emergen-C (4 packets) or Oral Rehydration powder	
Ginger cubes (10) or Tums (10) (for GI symptoms—that is, for general queasiness & “upset tummy”)	
Optional: cactus pads & Echinacea (for snakebite treatment; pads can also be used for stings)	
Diphenhydramine (Benadryl, Wal-Dryl) capsules (for allergic reactions, severe insect bites; ten <b>25-mg capsules</b> ; administer one; if no improvement in 15 minutes, it’s safe to give a second capsule. Give every 6 hours as needed.)	
Acetaminophen (Tylenol) ten <b>500-mg capsules</b> (for fever and pain; administer one every 6 hours as needed; ten capsules)	
Ibuprofen (Motrin, Advil) (for swelling, pain, & fever; twelve <b>200-mg tabs</b> ; give 1 or 2 tabs every 6 hours; take with food)	
Accident, Illness, & Incident Reports (3)	
Epi-Pen or syringes & vials of epinephrine ( <i>See Appendix B of the Risk Management Handbook</i> )	
ALCS “Student Health Concerns” with your backpackers highlighted.	

## **Appendix B: Using Your Epi-Pen in the Field to Treat Anaphylaxis**

### **Let's begin with the basics.**

Anaphylaxis (pronounced "a-na-fi-LAX-is") is a potentially severe or life-threatening allergic reaction that can occur very quickly—as fast as within a couple of minutes of exposure to the allergen.

It can be triggered by an allergy to a particular food (peanuts or shellfish, for example), biting or stinging insects (like bees), medication (penicillin is a common one), latex (the type of rubber many balloons are made from) or a variety of other allergic triggers.

### **The symptoms of anaphylaxis can vary.**

Not everyone affected by anaphylaxis will experience the same thing, but common symptoms include hives, itching, flushing and swelling of the lips, tongue and roof of the mouth.

The airway is often affected, resulting in tightness of the throat, chest tightness and difficulty breathing. These life-threatening allergic reactions can also be accompanied by chest pain, low blood pressure, dizziness and headaches.

It's serious stuff, which is why your top priority should be avoiding your known allergen(s) as best you can.

### **Be careful to avoid allergens...and be prepared.**

You can't avoid everything. That's why it's important to talk with your doctor about how to identify the signs and symptoms of anaphylaxis. Ask your doctor if EpiPen® (epinephrine injection) or EpiPen Jr® (epinephrine injection) Auto-Injectors are something you or your child should be prescribed, so that when you recognize the symptoms of anaphylaxis, you can **be prepared with a plan to treat them.**

### **Acting fast is important.**

If you, your child or someone you're caring for shows signs or symptoms of a life-threatening allergic reaction, administer EpiPen® or EpiPen Jr® Auto-Injector immediately as prescribed and seek emergency medical care. Because they do not treat the life-threatening symptoms of anaphylaxis, antihistamines are not recommended as first-line treatment for anaphylaxis.

It's important to administer epinephrine at the first signs of anaphylaxis. According to National Food Allergy Guidelines, epinephrine is the first-line treatment for life-threatening allergic reactions. A delay in administering epinephrine can be life-threatening.

### **Important Safety Information**

EpiPen® (epinephrine injection) 0.3 mg and EpiPen Jr® (epinephrine injection) 0.15 mg Auto-Injectors contain a single dose of epinephrine, which you (or your caregiver or others who may be in a position to administer EpiPen® or EpiPen Jr®) inject into the middle of your outer thigh (upper leg) (through clothing, if necessary). Get emergency medical help right away. You may need further medical attention. Only a health care professional should give additional doses of epinephrine if you need more than two injections for a single

anaphylactic episode. DO NOT INJECT INTO YOUR VEINS, BUTTOCKS, FINGERS, TOES, HANDS OR FEET. In case of accidental injection, please seek immediate medical treatment. Epinephrine should be used with caution if you have heart disease or are taking certain medicines that can cause heart-related (cardiac) symptoms.

The most common side effects may include increase in heart rate, stronger or irregular heartbeat, sweating, nausea or vomiting, difficulty breathing, paleness, dizziness, weakness, shakiness, headache, apprehension, nervousness or anxiety. These side effects may go away if you rest. **Tell your health care professional if you have any side effect that bothers you or that does not go away.**

### **Indications**

EpiPen® and EpiPen Jr® Auto-Injectors are for the emergency treatment of life-threatening allergic reactions (anaphylaxis) caused by allergens, exercise, or unknown triggers; and for people who are at increased risk for these reactions. EpiPen® and EpiPen Jr® are intended for immediate administration as emergency supportive therapy only. Seek immediate emergency medical help right away.

### **Base Camp Rx: Guidelines for administration of epinephrine in a wilderness setting**

*(Nancy Pietroski, PharmD; see <http://wildernessmedicinemagazine.com/1146/Base-Camp-Rx-Epi>)*

The risk of anaphylaxis, a severe, potentially life-threatening allergic reaction, remains for many people allergic to peanuts, other nuts, and other foods. For those who work and play in an outdoor setting, anaphylaxis is most commonly caused by insect stings (bees, wasps, and fire ants are the most dangerous), and in some cases, exercise and exposure to cold temperatures. Other risk factors are latex and medications; asthma is a risk for fatal anaphylaxis.

In the US, the overall risk of anaphylaxis is estimated at 0.05 to 2 percent, with 150 deaths/year (this number is higher when reactions to medications are considered). But the prevalence and incidence of anaphylaxis is difficult to estimate due to the current lack of recognition and lack of accepted criteria for diagnosis, although consensus on these is being developed. A 2006 National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network consensus definition (Table 1) has been published in both the emergency medicine and allergist literature, which substantially expand and clarify the definition of anaphylaxis. The standard of treatment is early recognition and administration of epinephrine. Other medications that may be administered adjunctively include antihistamines (both standard antihistamines like diphenhydramine [Benadryl] and H-2 blockers like famotidine [Pepcid]), IV fluids, and corticosteroids.



# Anaphylaxis Definitions

**1.** Acute onset of an illness (minutes to several hours) with involvement of the skin, mucosal tissue, or both (generalized hives, pruritus or flushing, swollen lips-tongue-uvula)

*AND AT LEAST ONE OF THE FOLLOWING*

- a. Respiratory compromise (dyspnea, wheeze-bronchospasm, stridor, hypoxemia)
- b. Reduced Blood Pressure (BP) or associated symptoms of end-organ dysfunction (hypotonia or collapse, syncope, incontinence)

**2.** Two or more of the following that occur rapidly after exposure to a likely allergen for that patient (minutes to several hours):

- a. Involvement of the skin-mucosal tissue (generalized hives, itch-flush, swollen lips-tongue-uvula)
- b. Respiratory compromise (dyspnea, wheeze-bronchospasm, stridor, reduced PEF, hypoxemia)
- c. Reduced BP or associated symptoms (hypotonia or collapse, syncope, incontinence)
- d. Persistent gastrointestinal symptoms (crampy abdominal pain, vomiting)

**3.** Reduced BP after exposure to known allergen for that patient (minutes to several hours):

- a. Infants and children: low systolic BP (age specific) or greater than 30% decrease in systolic BP\*
- b. Adults: systolic BP of less than 90 mm Hg or greater than 30% decrease from that person's baseline

\*Low systolic blood pressure for children is defined as less than 70 mm Hg from 1 month to 1 year, less than (70 mm Hg [2 age]) from 1 to 10 years, and less than 90 mm Hg from 11 to 17 years.

## Route of Administration and Dose of Epinephrine

The preferred route of administration of epinephrine for anaphylaxis is intramuscular (IM) into the anterolateral mid-thigh. In the wilderness setting, epinephrine auto-injectors (EAI) are most often used. EAI can penetrate clothing. Popular brands in the US are Epi-Pen and Auvi-Q. The cost is high: approximately \$350-500 for a 2-pack, with a fairly short expiration date. Epinephrine may also be drawn manually from a vial or ampule into a syringe and administered IM with the appropriate needle (the dose is 0.3 to 0.5ml of the 1:1000 concentration). This method is less expensive than the EAI as the vial is cheaper and multiple doses can be withdrawn, but more errors can potentially occur. The IM route has been found to be superior to the subcutaneous (SQ) route. Injection site is preferably in the thigh due to more rapid onset of action, but the deltoid may also be used.



It is important to note that a second dose of epinephrine may be needed in patients who have "biphasic" anaphylaxis. This should be administered 5-15 minutes after the first dose. All patients who have experienced anaphylaxis in the field should receive definitive care after receiving epinephrine. The true incidence of biphasic anaphylaxis is controversial. Previous studies have shown incidence rates of 0.5 to 20 percent. A 2014 study, the largest to date analyzing biphasic reactions, showed an incidence of less than 1 percent.

**Settings for Administration of Epinephrine Outside of a Healthcare Setting**

Three possible settings for recognition of an anaphylactic reaction and administration of epinephrine outside of a healthcare facility include schools, interaction with the EMS system, and outdoor education and wilderness settings.

**WMS Practice Guidelines for Epinephrine Use**

In the 2014 update to the 2010 practice guidelines, WMS supported the concept that "properly trained, nonmedical professionals whose work responsibilities require them to provide emergency medical care be trained to appropriately administer epinephrine for the treatment of anaphylaxis."

**WMS Practice Guideline (PG) for Outdoor Education and Wilderness Setting Programs Operating Procedures and Staff Training Curriculum for Administration of Epinephrine**

- All staff authorized to treat anaphylaxis must be trained by qualified instructors or programs (see WMS PG for specifics)
- Staff authorized by institution to administer the patient's own medication or that provided by organization
- Development of organizational field protocol
- Establishment of quality-assurance program (see WMS PG for specifics)
- Oversight by a medical consultant/advisor or a medical control

This document is to be carried in all first-aid kits at Aldo Leopold Charter School that contain epinephrine. Staff who have not been trained to administer epinephrine from an ampule should use an Epi-Pen (or other comparable epinephrine auto-injector).

## **Appendix C: Pre-Trip Planning Checklists for Backpacking**

### **Overview**

The following pages contain checklists that are necessary when preparing for and undertaking a backpacking trip at Aldo Leopold Charter School. Before a backpack trip begins, leaders, students, parents, and support staff read and, if they agree to the items on the list, sign their name in recognition of their role in making the trip successful. Before trip departure, the Director collects all signed checklists. All such documents are held on file until after the completion of the trip or until the Director deems it is appropriate to discard the information.

These checklists are, of course, works in progress. As we debrief trips and evaluate our policy, the checklists should be amended, if data suggests that there is a better way to manage our risks and support experiential education.

Pre-Trip Planners have been developed for:

- The School Director
- The Backpack Trip Coordinator
- Primary Group Leaders
- Secondary Group Leaders
- Drivers
- Parents
- Students

## SCHOOL DIRECTOR

✓	<b>Pre-Trip Requirements</b>
	Ensure trip permits from appropriate agencies are obtained, and copies are retained for ALCS record.
	Ensure medical advisor on call.
	Review Transportation and Trip Plans provided by TC(Trip Coordinator). Modify as necessary with consultation of Trip Coordinator.
	If necessary, provide a Pre-Trip Planner for any participants for whom planners have not been created, e.g., landowners, outfitters, teacher specialists, assistants for disabled etc.
	Produce emergency evacuation plan(s) for each backpacking group.
	The following documents/information are rendered in hard copy and on the school website for access by parents or others at least 3 days before trip: The Trip Plan Blank Parent and Student Pre-Trip Planners Trip start and end dates with corresponding drop-off and pick-up times Name and phone number for school contact
	Provide documentation of emergency medical information on students, group leaders, and other participants to each <b>Primary Group Leader</b> .
	Before Trip Start, review and approve Pre-Trip Planners from: TC, PGLs (Primary Group Leaders) SGLs (Secondary Group Leaders), Students, Parents, and any other participants. Any unsigned Planner is subject to rejection at discretion of SD (School Director). In particular, the SD MUST REJECT PARTICIPATION of a student if his/her parent(s) did not sign the Acknowledgment of Risk Statement.
	The School Director or Designee is responsible for all communication to parents, public, agencies, and press. If I do not fill this position, it will be filled by:_____.
	Assemble all trip documents, place in one location on ALCS grounds, and inform ALCS secretaries of their location. It is understood that ALL trip documents within the purview of the ALCS Risk Management Guidelines are reviewable by ALCS Staff and Parents of Students enrolled at ALCS and appropriate authorities.
	Make trip "go" or "no go" decision. Please write "go" or "ng" in check box.

**By signing here, I verify that the pre-trip planner has been successfully completed.**

**SIGNED:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

## TRIP COORDINATOR

✓	<b>Pre-Trip Requirements</b>
	Review permits (guide or agency) pertinent to the trip and notified school Director if any need to be obtained or renewed.
	Review group member lists provided by BC (Basecamp Coordinator). Modified with consultation of BC. Notify SD (School Director) and Parents if particular students have “failed” Basecamp, and require further training to participate in School Trips.
	Review qualifications of Students, PGL (Primary Group Leader), and SGL (Secondary Group Leader). Notify relevant individuals of acceptance/rejection or qualifications/training needed.
	Consult with appropriate agencies for road and trail closures and conditions before creating Trip Plan.
	Create and modify Trip Plan with consultation of anyone TC (Trip Coordinator) deemed appropriate. Give copies to PGL, SGL, and the SD. A Trip Plan AT MINIMUM consists of the following: <ul style="list-style-type: none"> <li>• Backpack Itineraries that include: <ul style="list-style-type: none"> <li>○ Maps with proposed routes and possible alternative routes</li> <li>○ Written descriptions of hikers’ travel</li> <li>○ Planned tenting locations</li> <li>○ Group composition (with participant names, number of students and leaders)</li> </ul> </li> <li>• Transportation Plan</li> <li>• Emergency Extraction plan</li> <li>• Trip Start and End dates with corresponding drop-off and pick-up times</li> </ul>
	Create Transportation Plan in consultation with anyone TC deems appropriate. Give copy to SD. A Transportation Plan AT MINIMUM consists of the following: <ul style="list-style-type: none"> <li>• A driver list with corresponding vehicle to be driven, and contact information for each driver during the driving portion of the trip that includes at least one cellphone number for communication from/to the school, and in addition, one radio channel for vehicle-to-vehicle communication as back-up to phones.</li> <li>• A passenger list for each driver/vehicle.</li> <li>• Planned departure time and estimated driving times.</li> <li>• A map of the routes to be taken that shows any pre-planned stopping points.</li> <li>• A description of the driving routes.</li> </ul>
	Give a blank Pre-Trip Planner to School Director, and <b>all</b> PGLs ,SGLs, and Drivers.
	Provide trip packet to each student’s parents that consists AT MINIMUM of the following: <ul style="list-style-type: none"> <li>• Trip start and end dates with corresponding student drop-off and pick-up times.</li> <li>• A copy of the Backpack Itinerary.</li> <li>• A Student and Parent Pre-Trip Planner that the student <b>MUST</b> return to one of their group leaders by the day of the Pre-Trip Backpack Group Meeting.</li> <li>• A list of equipment required for the trip.</li> </ul>

	<ul style="list-style-type: none"> <li>• A statement signed risk statement by parent(s) that says: “RISK STATEMENT: “I acknowledge that I signed the Acknowledgment of Risks form upon my child entering the school, that there are inherent risks for this trip, and I’m choosing to send my child on this trip. I have spoken to my child(ren) about these risks. I believe that ALCS has taken steps to minimize these risks. I understand that the ALCS Risk Management Plan is available for my review upon my request.”</li> </ul>
	Verify operability of all school-owned trip radios and phones. Back-up power with each device.
	Give communication devices to each PGL and record who has what devices.
	Formulate menu and emergency rations plan. Ensure that each group will be adequately fed for entire trip with the exception of travel from and to ALCS. Give food lists to food providers.
	Conduct a Transportation Plan review meeting with all drivers. Any resulting modifications are noted on the Transportation Plan and Re-submitted to the School Director as a “ <b>Revised</b> Transportation Plan”.
	Check with appropriate agencies for road and trail closures/conditions WITHIN 36 hours of Trip Start.
	All Primary Group Leaders have returned: <ul style="list-style-type: none"> <li>• Signed Student and Parent Pre-Trip Planners for each student in their group.</li> <li>• A signed Primary Group Leader Pre-Trip Planner.</li> <li>• A signed Secondary Group Leader Pre-Trip Planner.</li> </ul>
	Ensure school vehicles are fueled (that is, have full or nearly full tanks) and are in good working condition; ensure, too, that a pre-trip inspection has been performed within one day of departure.
	Gave keys to vehicle #1 to Driver AFTER returned SIGNED and COMPLETED Driver Pre-Trip Planner.
	Gave keys to vehicle #2 to Driver AFTER returned SIGNED and COMPLETED Driver Pre-Trip Planner.
	Gave keys to vehicle #3 to Driver AFTER returned SIGNED and COMPLETED Driver Pre-Trip Planner.
	Gave keys to vehicle #4 to Driver AFTER returned SIGNED and COMPLETED Driver Pre-Trip Planner.
	Give completed Pre-Trip Planners for PGLs, SGLs, Drivers, Student/Parents, and TC to SD BEFORE trip start.
	Review and consider all listed “Component Considerations” for <i>Trial Selection, Transportation Plan, Diet and Food Preparation, Equipment and Curriculum</i> – Lists to accompany Trip Coordinator Pre-Trip Planner.

**By signing here, I’m verifying that the pre-trip planner has been successfully completed.**

**SIGNED:\_\_\_\_\_ DATE:\_\_\_\_\_**

## BASECAMP COORDINATOR

✓	<b>Pre-Trip Requirements</b>
	Provide wilderness first aid training to students.
	Provide orienteering training to students including reading topo maps, compass and GPS usage and other skills necessary to navigate in the National Forest and Wilderness areas (provided to first year participants and every other year).
	Camp craft skills to include setting up a tent, using a camp stove, packing a backpack, water filter system usage and any other skills deemed necessary.
	Administer Safety Rule Test with 100% grade by participants all student backpack participants
	Administer Leave No Trace test with 80% or better to all student backpack participants
	Evaluate each student's physical endurance capabilities and attitude with input from other staff who have worked with students within one month prior to backpack trips.
	Develop preliminary backpack group lists and supplied to Trip Coordinator. Consider information gained from Basecamp, physical/medical information, previous trip performance, camp craft skills and student dynamics.
	Review and consider all listed "Component Considerations" for <i>Student Training and Group Selection</i> – List on back of this form.

**I understand that the Basecamp Coordinator is responsible for oversight of the Pre-trip basecamp. I hereby ensure that all Basecamp Coordinator Pre-Trip Planner components have been met PRIOR to departure.**

**SIGNED:\_\_\_\_\_ DATE:\_\_\_\_\_**

***Add any additions to this list and submit to the Trip Coordinator to ensure the list is updated!***

## PRIMARY GROUP LEADER

✓	<b>Pre-Trip Requirements</b>
	Review Trip Plan and communicate any reservations or issues with Trip Coordinator, especially with respect to trail travel times and campsite make/break with daylight to spare.
	If necessary, scout trailheads and trails. Please write "s" or "ns" in checkbox.
	Review provided Emergency Medical Information and address any questions to School Director.
	Review special needs of individual students and discuss with ALCS Special Education Director and/or parents.
	Pack the Emergency Evacuation Plan and keep it on person or on personal equipment for the entire trip.
	Have a fully supplied first aid kit and know about its contents and how to use it.
	All provided communication equipment is in working order and I know how to use it.
	All provided water filter equipment is in good working order and I know how to use it.
	I have considered the weather for the trip within 48 hours of trip departure and feel comfortable proceeding.
■	<b>THE FOLLOWING ARE TO BE COMPLETED AT THE PRE-TRIP BACKPACK GROUP MEETING:</b>
	Provided food is divided up among the group.
	Verify that ALL students in my group have water, emergency food rations, and ICE card.
	Verify that ALL students in my group have shoes or boots, and appropriate clothing (knit hat, long-sleeve torso covering, leg covering, socks...)
	Verify that ALL students in my group have adequate sleeping bags and pads.
	Lead group trip briefing (including AT MINIMUM trail rules, and Group Norms Contract).
	All students in my group have returned signed Student and Parent Pre-Trip Planners. Specifically, the equipment checklist is signed by the student or parent(s), and the Risk Statement is signed by the parent(s).
	I have a signed Pre-Trip Planner from my Secondary Group Leader.
	After signing statement below, I will return my, Secondary Group Leader, and ALL Student and Parent Pre-Trip Planners to the Trip Coordinator.

**I understand that the Primary Group Leader is fully responsible for the health, safety and well-being of his or her group members. I hereby ensure that all Primary Group Leader Pre-Trip Planner components have been met PRIOR to departure.**

**SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_**



## SECONDARY GROUP LEADER

✓	<b>Pre-Trip Requirements</b>
	Review and familiarized myself with the Backpack Itineraries, especially the surrounding area where the trip occurs and the relative locations of other trip groups at particular times during the trip.
	Communicate any reservations or issues with Trip Plan to PGL (Primary Group Leader) or TC (Trip Coordinator), especially with respect to trail travel times and campsite make/break with daylight to spare.
s/ns	If necessary, I have scouted trailheads and trails. Please circle “s” (satisfactory) or “ns” (NOT satisfactory) in checkbox.
	Review medical needs or special needs of any group participant with PGL.
	Be aware that the PGL carries an Emergency Evacuation Plan that I can refer to if necessary and a first aid kit if needed.
	Review ALCS satellite and radio equipment and know how to use it.
	Participate in the Pre-Trip Backpack Group Meeting, acquainting myself with students, and assisting them and the PGL with reviewing the Student Pre-Trip Planners, Equipment Checklists, packing, and other tasks.
	Ensure all students in the group have a trail map.
	Ensure all students have a ‘sack lunch’ for the drive to the trailhead.
	Consider the possible weather for the trip within 48 hours of trip departure and I feel comfortable proceeding.
	I signed this SGL Pre-Trip Planner below.
	Ensure that PGL turned over all Student, Parent, SGL, and PGL Pre-Trip Planners to Trip Coordinator.

**I understand that the Secondary Group Leader is fully responsible for the health, safety and well-being of his or her group members if the Primary Group Leader is not able to fulfill those responsibilities. I hereby ensure that all Secondary Group Leader Pre-Trip Planner components have been met PRIOR to departure.**

**SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_**

## DRIVER

✓	<b>Pre-Trip Requirements</b>
	Review the Travel Plan.
	Attended a Travel Plan Review Meeting with the Trip Coordinator and the other drivers were present, and all issues that I had were fully addressed by the Trip Coordinator.
	Put copy of the Travel Plan in my trip vehicle. It will be kept in the vehicle at all times once trip starts.
	Certified to drive a school vehicle and have provided copies of license and certifications to ALCS.
	Comfortable with my assigned vehicle for this trip.
	Perform a vehicle pre-trip inspection the day of travel and prior to departure.
	Have a full or nearly full tank of gas.
	The number of passengers for the trip is within the specified limits for the vehicle and is _____ (number of passengers including driver).
	Designate a Driver Assistant _____ (name) who will handle all radio and phone communications while the vehicle is in motion.
	After I have signed, OR NOT SIGNED, this Driver Pre-Trip Planner I will give it to the Trip Coordinator.

**I have completed all components of the Driver Pre-Trip Planner PRIOR to Trip Start.**

**SIGNED:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

## PARENT

✓	<b>Pre-Trip Requirements</b>
	Provide updated <b>medical, dietary, and contact</b> information to ALCS if there have been <b>ANY</b> changes to that or any other information relevant to a school trip.
	If necessary, spoke to my child about the 'Group Norms Contract', which deals with behaviors to be exhibited (teamwork, respect etc.) and encouraged following norms and all school rules for the duration of the trip. Easiest way to bring this up: "What's this 'Group Norms Contract'?"
	If concerned, I've Reviewed the Trip Plan (covers all aspects of the trip on the road and trail) that is viewable at the school and on the school website, and brought any concerns or questions to the Trip Coordinator or the School Director.
	I UNDERSTAND THAT THE BACKPACK TRIP IS A REQUIRED ACTIVITY AND THAT MY CHILD WILL NOT BE ABLE TO PARTICIPATE IN THE SCHOOL TRIP UNLESS HE OR SHE HAS ALL REQUIRED EQUIPMENT ON THE EQUIPMENT CHECKLIST AND I HAVE SIGNED THE RISK STATEMENT BELOW.
	I UNDERSTAND THAT I WILL BE HELD RESPONSIBLE FOR ANY LOST OR DAMAGED EQUIPMENT THAT IS BORROWED FROM ALCS.
	After signing below I will ensure that this planner is returned to the school.

**RISK STATEMENT:** I acknowledge that I have signed the Acknowledgment of Risks form upon my child entering the school, that there are inherent risks for this trip, and I'm choosing to send my child on this trip. I have spoken to my child(ren) about these risks. I believe that ALCS has taken appropriate steps to minimize these risks. I understand that the ALCS Risk Management Plan is available for my review upon my request."

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

## STUDENT

✓	<b>Pre-Trip Requirements</b>
	I am familiar with and agree to abide by the Group Norms Contract and all school rules.
	I am familiar with the ALCS Emergency Extraction Plan and lost hiker/group procedure.
	I have first aid training. (Check <b>only</b> if you have participated in a training session or class – but you don't have to be certified).
	I am familiar myself with the Backpack Itinerary, especially the maps.
	I have raised any questions or concerns I have to my parent(s), my group leaders, or the Trip Coordinator.
	I have the equipment listed on the <b>Equipment List</b> and will bring it to the Pre-Trip Group Backpack Meeting that will happen on _____ (date). If I don't have some necessary equipment, I have arranged with the school to borrow equipment.
	I am responsible for the following equipment borrowed from ALCS:

**I feel prepared for this ALCS school trip and have had any concerns adequately addressed by my parents, the group leaders, and/or the Trip Coordinator.**

**SIGNED:**\_\_\_\_\_ **DATE:**\_\_\_\_\_

# Appendix D: School-Sponsored Activity Policy

*This policy is largely adopted from Baltimore County Public Schools*

## School-Sponsored Activities

### Table of Contents:

- I. Purpose
- II. Definitions
- III. Responsibilities
  - A. Risk Assessment Agent
  - B. School Director
  - C. Staff Sponsor
  - D. Risk Management Committee
- IV. Review Process
- V. Non-School Sponsored Activities
- VI. Compliance

### I. Purpose

To provide guidelines for the review and approval of student activities sponsored by the Aldo Leopold Charter School (ALCS).

### II. Definitions

For purposes of this rule, the following definitions shall apply:

1. School Sponsored Activities – Activities that are planned and conducted by school personnel and approved by the director. School sponsored activities may take place on or off school property and during or after the Typical School Day.
2. Non-school Sponsored Activities – Activities that don't meet the criteria of School Sponsored Activities.
3. Typical School Day – Each day that the school is educating students according to the academic calendar and from 8:30am until 4:30pm on or off school grounds.
4. Elevated Risk Activities– Activities that expose the School, the Governing Council, its employees and/or students to *greater risk* of personal injury, property damage or general liability. These risks are identified by the School Director as either “increased”, “managed”, or “high” risk as defined below.
  - a. Increased Risk Activities – School Sponsored Activities that impose higher risk than those that are carried out in a typical school setting.

- b. Managed risk activities – Activities that the RMC has pre-identified as *Elevated Risk Activities*, **and therefore, has systematically applied and documented procedures and policies consistent with the ALCS RMG to reduce associated risks to an acceptable level.**
- c. High risk activities - Activities that are identified by the Director as **too difficult to control and/or monitor and/or beyond the scope of acceptable risk for ALCS and are therefore beyond approval.**

### III. Responsibilities

#### A. School Director

1. All School Sponsored Activities shall be reviewed by the Director prior to being scheduled and announced. The Director shall be vested with the authority to approve or revoke participation in such activities.
2. Approve Safety Plans for all School Sponsored Activities prior to any trip leaving school grounds.
3. The Director shall ensure that all contracts and agreements are approved in accordance with school policy and established procedures.
4. The Director shall be the signatory on all such contracts and agreements. ALCS will not be financially responsible for, and has no obligation to reimburse, individuals or businesses for contracts or agreements that lack authorized signatures.
5. The Director will be responsible for ensuring that the School Sponsored Activity is consistent with the educational mission of the school, extends learning opportunities to participants, and that participation in the activity is open to all qualified students.
6. The Director shall be responsible for maintaining a list of activities that are deemed to be high risk and not approved as school-sponsored activities.

#### B. Risk Assessment Agent

A person contracted by the School to assess the potential risk of specific school sponsored activities. The Agent shall provide to the school Director his/her disposition toward each activity to include the following status:

Accept – Not considered a High Risk Activity.

Reject – High Risk or potentially manageable activity that needs program modifications

#### C. Staff Sponsor

1. Staff sponsor must submit an ALCS School activity request form with plenty of time for review

2. The staff sponsor shall attend all meetings, functions, or practices for the activity, advise and supervise students, and keep the School Director informed regarding the activity.
3. Staff sponsor must submit safety plan and get it approved before leaving campus for a school sponsored trip

#### IV. Review Process

- A. An ALCS School Activity request form must be submitted to the School Director and include a description and purpose of the activity; date, time, and place of the activity; cost; any contracts/agreements required for participation in the activity; and any additional information that may assist the administrator in reviewing the request. Activities that require more time to review and/or develop management plans need to be submitted with plenty of time for review.
- B. The School Director determines whether the activity is an Elevated Risk activity and if so, categorizes it as either an Increased, Managed or High Risk Activity. If the activity is identified as an Increased Risk Activity, it may be approved without further action.
- C. Elevated Risk Activities that the Director considers to potentially be high risk must be reviewed by the Risk Assessment Agent. The Director reserves the right to submit ANY activity to the Risk Assessment Agent.
- D. The School Director shall initiate the review by contacting and supplying all necessary information to the Risk Assessment Agent at least fifteen (15) business days prior to the event.
  - 1) The Risk Assessment Agent will approve or reject the proposed activity.
  - 2) The Risk Assessment Agent will send the disposition of the risk review to the Director who made the request.
  - 3) The Risk Assessment Agent will include with the disposition any items that he/she believes should be considered to increase safety and/or reduce risk.
  - 4) The Director shall not approve or sign any contract for elevated risk school sponsored activities until acceptance is obtained from the Risk Assessment Agent.
- E. The Director will not approve any activity that is rejected by the Risk Assessment Agent.
- F. Activities and programs that are excluded from the School's insurance coverage are prohibited.
- G. The School Director will return the written request to the requestor with a mark of approval or denial or a request for further information.

#### V. Non-School Sponsored Activities

- A. Activities that are sponsored by individuals and organizations other than the school shall not be planned during the school day, monies shall not be collected in the

school, and information concerning the trip shall not be discussed or distributed in the school or during the school day.

- B. The Governing Council and the school shall assume no responsibility or liability for non-school sponsored activities.
- C. Employees shall not, during the regular school day, participate in, advertise, promote, or enroll students for non-school sponsored activities, non-school sponsored travel-study programs, or non-school sponsored trips.
- D. Employees shall not use school system funds, resources, or equipment to advertise, promote, or enroll students for non-school sponsored activities.
- E. Travel agencies or other organizations that are not established as school sponsored business partners shall not be permitted to come into school for the purpose of advertising, promoting, or enrolling students for non-school sponsored travel-study programs or trips.
- F. Nothing in this rule will preclude an established school sponsored business partnership from disseminating materials about such programs as long as the materials clearly indicate that the activity is not affiliated with, sponsored by, or endorsed by Aldo Leopold Charter School.
- G. Employees who participate in the planning and promotion of non-school sponsored activities must:
  - 1. Notify student participants and parents that the activity is not school- sponsored and that the School or Governing Council is not liable for losses incurred as a result of the activity
  - 2. Do so outside of the normal work day.
- H. Individuals and organizations who organize or plan non-school sponsored activities on school property must complete an *Application for Use of Facilities*.
- I. Students who participate in a non-school sponsored activity and who are absent during all or part of the school day shall be counted as unexcused absent unless the Director grants permission prior to the activity.

## VI. Compliance

All employees are responsible for following School policies, rules, and established procedures when entering into contracts and agreements for school sponsored activities.



## Appendix E: Packing List for Wilderness Backpacking Trips

*Here's the recommended Aldo backpacking list. Items with an asterisk (\*) beside them are available on loan from the school. "Loaners" require that students offer collateral as a guarantee that items are returned in good condition.*

- Backpack\*
- 2-person tent\* (larger tents are fun—but they are heavier!)
- Lightweight sleeping bag in a stuff-sack\*; should be rated 20 degrees or lower
- Sleeping pad\* (more important than you might think)
- Cap with a brim
- Rain poncho or raincoat and pants
- 2 sturdy quart or liter water bottles or Camelbak-style hydration system
- Headlamp or flashlight
- Sturdy hiking shoes
- Sandals for camp
- 2 pair of socks; cotton is not recommended
- Compact jacket; cotton is not recommended
- Warm cap (even for summer trips); cotton is not recommended
- 1 long-sleeved shirt; cotton is not recommended
- 2 short-sleeved shirts; cotton is not recommended
- 1 pair of pants; long pants that convert into shorts are ideal; cotton is not recommended
- Mess kit (sturdy bowl, cup, spoon, fork)
- Trash bags (for wet clothes & to protect your sleeping bag)
- Hand towel and washcloth
- Bandana
- Lighter (for fire-starting; optional)
- Pocket knife with a 5-inch (or shorter) blade (optional)
- Bathing suit (optional but recommended, depending on the season & the site)

In addition, students should bring toiletries in a sealable plastic bag: sunscreen, lip balm, biodegradable soap, comb, toothpaste, toothbrush, & deodorant.

Very important: students will need to bring a hearty sack lunch for the first day of the trip.

All students carry a journal, along with pens or pencils. Please bring your copy of *A Sand County Almanac* as well.

The school will provide all students with a small emergency ration for the trail. It's not necessary to bring extra food, since backpackers will divide their food for the entire trip among all team members.

## Appendix F: Off-Campus Activity Plan

Name of event \_\_\_\_\_

Date(s) of event \_\_\_\_\_

Time of departure \_\_\_\_\_

Time of return \_\_\_\_\_

Destination & route: \_\_\_\_\_

Brief, adequate description of event \_\_\_\_\_

Trip leader \_\_\_\_\_ Phone number \_\_\_\_\_

Support staff (list phone number after each staff member's name) \_\_\_\_\_

If this is a class trip, students from which class will be accompanying you on the trip?  
\_\_\_\_\_

List students who belong to this class who are NOT attending the event:  
\_\_\_\_\_

What vehicles will you be using to transport students? \_\_\_\_\_

Predicted weather from a reliable online source: \_\_\_\_\_

Checklist for all off-campus trips:

\_\_\_ First-aid kit (including first-aid book & protocols)

\_\_\_ Health concerns checklist

\_\_\_ Contact information for all students on the trip (either ICE cards or a list of pertinent contact info)

Optional (but frequently appropriate) gear you are taking:

\_\_\_ Full water cooler

\_\_\_ Walkie-talkies (radios)

\_\_\_ GPS device

\_\_\_ Map to and from destination

Gear that each student should take:

\_\_\_ Journal & pencil/pen

\_\_\_\_\_  
Signature of trip leader

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Date of approval

### **Checklist for All Trips**

*(All items should be checked or denoted "NA" when the item is not applicable to your particular trip.)*

1. \_\_\_\_\_ Obtain cost approval from Director and Business Manager.
2. \_\_\_\_\_ Ensure that all lodging confirmation numbers and lodging contact numbers are recorded with school personnel who are remaining behind.
3. \_\_\_\_\_ Receive approval for all Purchase Orders.
4. \_\_\_\_\_ Complete room assignments for students and chaperones (4 students to 2 queen size bed rooms, or 2 students to 1 queen size bed)
5. \_\_\_\_\_ Brief students and staff on schedule for trip events.
6. \_\_\_\_\_ Complete a Norms Contract.
7. \_\_\_\_\_ Ascertain that every student traveling has a completed permission slip.
8. \_\_\_\_\_ Check attendance (take roll) before, during, and after all events, bus rides, and lodging room assignments.
9. \_\_\_\_\_ Conduct wellness check-ins with all students in AM and PM.
10. \_\_\_\_\_ Enforce all ALCS rules.
11. \_\_\_\_\_ If students are returning directly home (or to some other agreed-upon location) rather than to school, make sure a parental release form has been signed.
12. \_\_\_\_\_ Leave lodging room clean and in order.
13. \_\_\_\_\_ Debrief student behaviors and turn in any incident reports to Director.
14. \_\_\_\_\_ At trip's end, turn in a signed Activity Form; include notes on any irregularities.
15. \_\_\_\_\_ Clean the bus or Suburbans.
16. \_\_\_\_\_ Clean all rented or borrowed gear.
17. \_\_\_\_\_ Store food in kitchen or pantry.
18. \_\_\_\_\_ Return all keys and itemized receipts to the school office.
19. \_\_\_\_\_ Phone director (or his designee) in the AM and in the PM each day.

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Staff sign-off for all items above at end of trip

## **APPENDIX G: THE RIGHT TO TREATMENT AND THE RIGHT TO REFUSE TREATMENT (*EXCERPTED*)**

Posted in *Access to Treatment*, August 6, 2013

Lloyd I. Sederer, M.D., Adjunct Professor, Columbia/Mailman School of Public Health  
Medical Editor for Mental Health, Huffington Post/AOL

...

There are exceptions to a patient's right to refuse treatment. In an emergency, all bets are off. A doctor may provide involuntary treatment, usually a medication given by injection or by mouth, but only to control the emergency—which, again, is defined as “an imminent danger to self or others.” Whatever treatment is provided in an emergency cannot be continued after the immediate danger has passed, unless the patient agrees and gives informed consent. Clinicians cannot continue the medication, even if it could prevent another emergency situation; the patient has the right to decide whether to continue or not.

For involuntary treatment (treatment without consent) to be delivered outside of an acute emergency, the doctor and hospital must petition a court to order it. Laws vary from state to state and, of course, no two judges are alike.

Generally, judges rule in favor of well-prepared doctors and hospitals that show that:

1. the treatment is necessary for safety and recovery;
2. all efforts at voluntary treatment were exhausted;
3. family and others were engaged to help persuade the patient to accept care (and were not successful); and
4. the benefits of treatment are likely to outweigh its risks.

## A Glossary of Aldo Leopoldisms

**Aldo Vibe**—known to change from year-to-year, and flavored significantly by the senior class at the helm, the Aldo vibe is founded both in our **Norms** (see below) and the personalities of our acknowledged leaders. Tradition shapes our vibe, and it seems always to center around mutual respect, a love for wild country, open-mindedness, and non-conformity with our consumption-driven national Zeitgeist. Or at least we hope.

**Aldo toilet paper**—a fully biodegradable botanic material used for cleaning the body after defecation or urination. Also known by its scientific binary, *Verbascum thapsus*, and its common name, mullein.

**Backpack Base Camp**—formerly known as Backpack Boot Camp till a friend of the school pointed out the martial nature of the name. Backpack Base Camp comprises the first week of the high-school year, during which students prepare for backcountry living and learning by setting up tents; using compasses, topo maps, & GPS units; packing their backpacks and then hiking up Gomez Peak with a loaded pack; & learning backcountry skills, such as first aid and responsible fire-building.

**Big 5**—Sturdy shoes, a cap with a brim, lunch, ample water, & a journal. You need these 5 items nearly anytime you enter the **Outdoor Classroom**. During your first year at Aldo, you receive a grade for how many of these you can remember to bring each week.

**BRS (Behavioral Risk Survey)**—An annual and anonymous survey wherein students report how many roadblocks they and their world put in their way.

**Cathole**—a 6-8-inch deep depression created in the earth with a trowel or skillful removal of a stone; an Aldite then defecates in the cathole when no one is looking. Be sure you're 200 feet from a stream before you drop trowel. See **Aldo toilet paper**.

**Circles**—a form found frequently in nature and at Aldo events, including classroom lessons, campfires, trip check-ins, and seaside discussions. We frequently use this natural structure to make decisions, share ideas, perform group hygiene, and sing. The circle is widely revered because it is simple and functional, in that it allows group members to make eye contact and keeps members—older students, younger students, staff, and parents—at the same respectful, humble level.

**CO—Community Orientation**—A course fundamental to the Aldo experience, Community Orientation meets each Friday for a five-hour adventure in community stewardship, teamwork strategies, and fighting Nature Deficit Disorder. All students who enter Aldo Leopold High School must take at least a semester of this course; freshpeople are part of

the course for the entire year. Among its many purposes, CO prepares students for labor on YCC crews, internships, and citizenship in their communities.

**Day Sit**—an activity that requires contemplation, reflection, and mental discipline as a student sits calmly and in solitude along a riverbank or atop a peak and pays attention. It's an acquired skill, & it often results in some astonishing discoveries and journal entries.

**Debrief**—A meeting that occurs the day after any ALCS overnight trip. Although some people believe that it involves changing your underwear after several dingy days in the backcountry, in fact it is a time for trip leaders to review the trip, examine risk-management procedures, and if necessary change policy to improve safety and learning in the outdoor classroom.

**Earth Day**—the most important holiday in the Aldo year.

**Ecopunks**—A cadre of devoted environmental scientists who measure tree girth, cubic feet per second, canopy density, and other environmental phenomena in the service of their community. They participate in a strange ritual each spring called **Envirothon** and are sometimes caught earning federal monies while recreating with a “monitoring disc.”

**Envirothon**—a competitive ritual that Aldites participate in each April, always with the intent to defeat their arch-rivals at Hot Springs High School & finally attend the National Envirothon—especially when it's held in a really cool place. The legendary team of Myers, Mahl, Kirk, Reeves, & Gruszka won the state E-thon in 2014.

**Envirothong**—undergarment worn by **Ecopunks** to **Envirothon**; bears the school logo.

**FVC—Full-Value Contract**—a list of promises we make to each other before setting off onto a journey together. Also known as a **Norms Contract**.

**Healthy Risks**—the subject of this handbook, and above all a goal for all outdoor experiential education.

**Internship**—a close working relationship with a community mentor who introduces Aldo students to their vocations. The mentor not only offers students experience in various fields of endeavor—medicine, food preparation, craft, building, for instance—but instills in each student an appreciation for honest labor, work ethic, and contributions to community. An internship culminating in the Internship Showcase—our school's open house, wherein we strut our stuff at the end of each semester).

**Learning circle**—an Indoor and **Outdoor Classroom** learning strategy wherein students and teachers sit together in a circle and share insights, observations, and frequent laughter (and the occasional tear).

**LEW**—acronym for **Learning Enhancement Workshop**, which is the non-threatening name we give to what is actually an initiation ceremony involving a sweat lodge and an all-night solo campout.

**LNT**—Leave No Trace principles guide Aldites in every outdoor undertaking. The principles are rooted in common sense, but our extravagant manner of daily living has made LNT principles sometimes counterintuitive. Advanced LNTers actually use LFT principles—they Leave Fewer (human) Traces at a campsite than what they found upon arrival.

**Monitoring Disc**—Nickname given to the omnipresent Frisbee that accompanies all Forest Monitoring excursions.

**Night Sit**—see **Day Sit**, & add fear if you have not had previous experience in the backcountry. Students participate in night sits on backpacking trips; for experienced Aldites, night sits offer a time of solitary reflection at the end of a day and contemplation of night-time beauty, wherein our five (or more) senses may be recalibrated; for neophytes, well—it's a time when you revisit every backwoods slasher movie you've ever watched as you sit quietly awaiting your attack by grizzlies, deranged Gilabillies, catamounts, and chupacabras.

**Norms**—the agreements students and staff make about the way they want to be treated & the way they will treat each other each year. For the record, there *is* a school handbook with rules, but it is to be used only when we fail to live up to our norms.

**Outdoor Classroom**—of the two classrooms available to students, indoor and outdoor, this is often the preferred classroom setting for most students and teachers. In the outdoor classroom, most indoor classroom expectations are preserved, with the added bonus of aesthetic pleasure, natural light, clean air, wonder, and curiosity. Warning: the Outdoor Classroom can be both distracting and habit-forming.

**Popcorn**—a kind of response-style used in **Learning Circles** and **Socratic Seminars** wherein students don't speak in sequence but offer ideas in kind of random order, like kernels exploding in a pan of hot grease.

**Restorative Justice**—a system problem resolution that seeks not so much a punishment for an infraction but rather the restoration of respect and mutual regard when community norms have been violated. Restorative justice relies heavily on principles that prevail in **Circles**.

**SOS**—Sometimes known as AFWtD (A Fate Worse than Death) until students discover that their time in this after-school study hall can lead them from the depths of academic

catastrophe to the heady realm of the Honor Roll. It meets Tuesday through Thursday from 3:50-4:45.

**Socratic Seminar**—one name given to **Learning Circles**, probably because the namer was raised back East, where Socrates is very popular.

**Sustainability**—though a term much-abused, sustainability guides every decision the school makes, whether regarding curriculum, food, relationships, or work.

**Ultimate Frisbee**—one of two school sports for which Aldo gives a bonafide letter. See also Envirothon.

**Watershed Keeper**—a student committed to working with others to preserve the integrity of the San Vicente, Mimbres, or Gila watersheds—and ultimately, whatever watershed they end up residing in once they leave Aldo Leopold Charter School.

**WFR**—pronounced “Woofers.” Not to be confused with one who “WWOOFs,” which requires working with an organization called “World-Wide Opportunities on Organic Farms.” WFRs are Wilderness First Responders—members of the Aldo community (so far, only teachers, but we hope this will change) who have undergone a challenging 80-hour training and certification in providing backcountry treatment for injuries and illnesses. Aldo WFRs are trained by the Wilderness Medicine Institute and attend a 24-hour renewal course every 2 years, which involves a recertification exam.

**YCC (Youth Conservation Corps)**—Often the first job an Aldo student holds is as a member of a YCC crew. A spinoff of the Depression-era Civilian Conservation Corps, YCC offers students minimum-wage pay (or better) for their labor as trail builders, mural designers, ecological monitors, archaeology instructors and monitors, and gardeners.