



BASIC WILDERNESS SURVIVAL

What Every Scout Should Know

ABSTRACT

Teaching scouts basic, primitive wilderness survival techniques during a controlled campout to provide them with the experiential skills and confidence needed to survive an emergency situation during backcountry camping.

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WILDERNESS SURVIVAL MERIT BADGE

REQUIREMENTS FOR THE WILDERNESS SURVIVAL MERIT BADGE:

1. Do the following:
 - a. Explain to your counselor the hazards you are most likely to encounter while participating in wilderness survival activities, and what you should do to anticipate, help prevent, mitigate, or lessen these hazards.
 - b. Show that you know first aid for and how to prevent injuries or illnesses likely to occur in backcountry settings, including hypothermia, heat reactions, frostbite, dehydration, blisters, insect stings, tick bites, and snakebites.
2. From memory, list the seven priorities for survival in a backcountry or wilderness location. Explain the importance of each one with your counselor.
3. Describe ways to avoid panic and maintain a high level of morale when lost, and explain why this is important.
4. Describe the steps you would take to survive in the following exposure conditions:
 - a. Cold and snowy
 - b. Wet
 - c. Hot and dry
 - d. Windy
 - e. At or on the water
5. Put together a personal survival kit and be able to explain how each item in it could be useful.
6. Using three different methods (other than matches), build and light three fires.
7. Do the following:
 - a. Show five different ways to attract attention when lost.
 - b. Demonstrate how to use a signal mirror.
 - c. Describe from memory five ground-to-air signals and tell what they mean.
8. Improvise a natural shelter. For the purpose of this demonstration, use techniques that have little negative impact on the environment. Spend a night in your shelter.
9. Explain how to protect yourself from insects, reptiles, bears, and other animals of the local region.
10. Demonstrate three ways to treat water found in the outdoors to prepare it for drinking.
11. Show that you know the proper clothing to wear while in the outdoors during extremely hot and cold weather and during wet conditions.
12. Explain why it usually is not wise to eat edible wild plants or wildlife in a wilderness survival situation.

WILDERNESS SURVIVAL TRAINING

SKILLS LESSON 1 (ACADEMIC): INTRODUCTION TO WILDERNESS SURVIVAL

The Wilderness Survival Weekend provides scouts with the skills and knowledge to confidently deal with emergencies in remote and austere environments, when emergency services are not a simple call away, thereby improving their ability to explore their world, help others, and be more effective youth leaders.

1.1 - Overview, Objectives, Goals and Methods

This 2-day campout is designed to be an introduction to the fundamentals of survival in the wild. It is a great way for scouts, especially young scouts who are not yet comfortable with the idea of camping in general, to begin learning about backcountry camping and how to deal with wilderness emergencies. It's also a great way for older, experienced scouts to learn or refresh important fundamental skills.

The focus of this program places emphasis on basic skills, equipment, and preparedness with the expectation of rescue within 72 hours. The scouts will learn about the Seven Priorities of Survival (survival psychology, wilderness first aid, shelter, fire, signal, water, and food) with particular emphasis on shelter construction and fire building. This campout is a great way for the scouts to learn basic skills, build confidence, and become more comfortable in the outdoors.

This campout is geared towards scouts of varying skill, experience levels, and backgrounds so no prerequisites are required; however, there will be minimum gear requirements for cold/inclement weather. We only require that scouts bring a sense of adventure and plenty of Positive Mental Attitude. This campout involves a mix of "academic" skills discussions during 1-2 Troop meetings and then a scenario-based "field training" weekend at an actual campsite.

Overall, the campout is meant to be physically and mentally challenging... but also fun!

1.2 - Safety Briefing

What do nuclear power plants, construction sites, aircraft carriers, and many hospitals have in common with Scouting? All constantly look for ways to eliminate hazards that could be life altering or fatal. One tool used by many safety-conscious groups is the safety moment or safety briefing that starts each meeting or activity with a pause to discuss a hazard or risk that can be prevented. The safety moment focuses the attention of the group on safety and how to achieve it. In short, Safety Moments are exactly what the name implies: opportunities to prepare for an activity, review safety measures before executing the activity, and speaking up if something doesn't seem right. That's the "why" of the safety moment. Let's address the who, what, when, where, and how next.

Who can deliver a safety moment? Anyone who is willing to be prepared and to step up. Ideally, each Scout or Scouter (with some preparation) could step up and make a difference within his or her unit or group. While the leaders/instructors will be briefing safety measures prior to the start of each activity, scouts will need to pay attention to their surroundings and speak up if they feel something is posing a safety concern.

When and where a safety briefing be delivered? During the course of this campout, scouts will be exposed to adverse weather conditions, sleep deprivation, and activities that take them well outside their normal levels of comfort. Prior to the start of each activity, leaders/instructors will brief scouts on proper safety

procedures and emphasize the need for situational awareness to ensure no unsafe actions are taking place.

How are safety messages delivered? All messages will be delivered using facts and simple language and will be appropriate to the audience. Most safety messages will be delivered and things the scouts should be aware of, but, during the course of the training, leaders/instructors will constantly monitor the scouts' performance and action and will redirect as needed.

1.3 - A Brief Discussion of The Need for Quality Survival Training

When it comes to survival, there's no "average" emergency. Each crisis is unique. Specifics like the setting, the weather, the people, and the events combine to create an occurrence that has never happened before and will never happen again. Yet in the face of all these variables, there are a few constants. The cold can kill you faster than dehydration. A lack of water can kill you faster than starvation. And a panicked decision can get you killed immediately. There's a lot to consider, but luckily for us, we can learn from the successes and failures of others, and we can use that wisdom to predict the most likely hazards for any given situation.

In an emergency survival situation, there is one particular constant that can turn a bad situation into a catastrophe: the inability to make a plan to survive and the lack of confidence to execute that plan! This training teaches scouts how to stay alive during a catastrophic situation.

1.4 - Training Philosophy

By simulating a survival situation, leaders/instructors are able to step-in and offer guidance to ensure success. This training weekend will allow scouts to fail in a controlled allow participants the ability to fail so that they can learn from their mistakes – which will significantly increase their survivability chances in a real-life situation. Ultimately, scouts will gain experiential know-how that will give them the confidence they need to overcome an emergency wherein the difference between success and failure is not measured by a passing grade... but rather survival and preservation of life!

1.5 - The Importance of Planning and Prevention of Survival Scenarios



A normal situation can take a turn for the worst very fast, and someone who is not prepared to meet the challenges of an emergency situation has a much less chance of survival than someone who is mentally prepared to overcome an unexpected event (or series of events) that leaves little time, if any, to prepare. That is why it is so important to put time into planning and preparation long before an emergency survival situation occurs.

Wilderness survival preparedness refers to the pre-planning and preventive measures taken to reduce the severity of a survival situation, which has the potential save the maximum number of lives. Specifically, when planning a camping trip or outdoor activity, a scout not only needs to consider all of the possible safety needs and potential hazards, but also consider a large number of possible scenarios wherein there would be a need to implement their survival skills.

1.6 - Seven (7) Survival Principles

While they might not keep you alive in the same ways as shelter and water, an upbeat positive attitude and a generous streak of mental toughness can be literal lifesavers under the dire circumstances of a survival situation. Maintaining a positive attitude is like a light in the darkness. You're more likely to have a better frame of mind and you're more likely to think clearly. By mustering your mental toughness, you can tolerate hard conditions better and do what needs to be done. It also helps if you understand the "Rule of Threes" and how that rule can help you prioritize your needs. Generally speaking, you can only live 3 minutes without air or if you have massive bleeding. You can only live 3 hours without shelter in a cold, wet, and windy setting. Finally, you'll only have 3 days without water and 3 weeks without food. Of course, these numbers can vary wildly, but it's still a good framework to help us organize your work and our needs. Remember, stay positive, be tough, avoid panic, work hard and take care of the worst problem first.

Follow these seven steps—in order—and you greatly increase your chances to surviving in the wilderness or the backcountry if things go wrong (if you get lost, or someone gets injured, or the weather takes a nasty turn).

The two biggest killers in the great outdoors are poor planning and panic. Most people don't die in the wilderness because of the wilderness itself (the wild elements, injuries, rogue grizzly bears, etc.).

Most people die because of the mistakes they made when confronted with just such a survival situation. Here is how to avoid making mistakes, the seven rules for survival courtesy of the U.S. Air Force (though we substitute the more comprehensive "STOP" for "Positive Mental Attitude"):

1 - STOP (Stop; Think; Observe; Plan)

The STOP principal is the first priority in any wilderness survival situation

S.T.O.P. is actually an acronym for how you should react when something goes wrong in the wilderness—which usually means someone gets hurt, or you realize you are lost, or you see a bad storm coming.

- Stop
- Think
- Observe
- Plan

Stop

The instant something goes wrong, stop immediately.

The worst thing you can do is panic, and start running around or attempt to "retrace your steps." That's the best way to get even more lost or to waste valuable time that would be better spent dealing with the actual problem (first aid, approaching storm, etc.).

Simply stop moving, take a deep breath, and think about what to do next.

(Caveat: If you are above the tree line and suddenly see a storm coming—storms can sneak up on you quickly in the mountains—get down below the nearest tree line as fast as is safely possible, then stop and do the rest of this assessment.)

Think

Your head is your most useful tool you have in the wilderness. (I know: shocking.) Determine your problem, then determine how to deal with it.

First up: See if you can figure out where you are.

Get out the map and compass and try to orient yourself using the local landscape (mountains, ridges, streams, etc.).

Have everyone go over the last place they remember where knew where they were (trail marker or unmistakable landmark).

Don't go anywhere yet. Just try to figure out the plan.

Observe

Observe not only your surroundings but also your group.

- Does anyone need first aid?
- Is anyone freaking out and needs to be reassured (keep an eye especially on the younger kids).

Take inventory: What gear do you have?

Think about the next few steps on this list.

- Where is the best place nearby to seek shelter should you need it?
- Using the map and your eyes, determine where you could best signal for help (hilltop or nearby clearing)?
- Where is the nearest water source?

Plan

Once you know everything above, you can continue to plan.

- If someone is grievously injured, apply first aid then get them to safety.
- If seriously bad weather is coming, seek shelter.
- If you are lost, stay put.

How to get un-lost

Notice I wrote up above that you need to "continue" to plan. That is because the first part of any "get un-lost" plan happened well before you leave on the trip when you file a written trip plan with someone back home, and also let the local ranger know your plans.

The best way to get un-lost is to have others back in civilization who will:

Realize that you are lost (which will happen as soon as you are overdue coming off the trail), and know where it was you were supposed to be so a rescue party has a reasonable chance of finding you. That last bit is important.

You are never closer to where you are supposed to be than the moment you realize you are lost.

If you are really and truly lost, the worst thing you can do is to keep on moving.

Unless you have a distinct trail or road to follow back (or footprints in the snow), chances are you will only get more lost.

Also, trails can be deceiving. They twist and turn; other trails constantly branch off—some marked trails, others unmarked bushwhacks, still others game trails left by animals. That means many of these wilderness paths (bushwhacks and animal tracks) won't even show up on your map. If you are lost it is usually because, through inattention, you accidentally started following a trail other than the one you were meant to be on. If you are already on the wrong trail, following it "back" will not get you any less lost.

If you are reasonably sure that you merely overshot a turn or took the wrong fork a short ways back, send a scouting party back to check on it. (But remember the triple buddy system: never fewer than 3 people in any group; that way if one person gets injured, one can stay to provide first aid while the third goes for help.)

Look at it this way: a compass has 365 degrees, right? If you just set off randomly from the point where you are lost without a clear sense of where you need to go, you have one chance you're now headed in the right direction—and 364 chances you're going the wrong way.

So stay put. Most people lost in the wilderness are found within 24 hours. Focus on surviving until then.

2 - Provide First Aid

Providing first aid is the second priority in any wilderness survival situation

Always be sure everybody is in their best form before doing anything else. You need your team in tip-top shape to tackle a survival situation.

Provide any First Aid that is necessary—and not just on the obvious stuff, like blisters and cuts and broken bones.

Make sure everybody is staying hydrated.

Watch for signs of hypothermia or heat exhaustion or heat stroke.

Mental health is important, too. Try to keep everyone up with a positive mental attitude. Most people who have survived in truly hazardous wilderness situations did so mainly because they believed that they would survive and that they could survive.

3 - Seek shelter

Seeking shelter is the third priority in any wilderness survival situation

Hypothermia, heat exhaustion, and heat stroke. All of these affects not only your health but also your ability to think clearly—and therefore your ability to survive.

The best way to avoid these medical problems is to be someplace safe and protected from the elements, which means staying warm and dry and out of the wind and rain.

That means you need shelter.

The clothes on your back

Shelter is all about insulation.

That means "shelter" includes what you are wearing.

Be sure to wear layers for warmth, dry clothes, nothing cotton, and some protection from wind and rain (rain jacket and pants or, at worse, a trash bag).

Rigging a shelter

- The whole point of a shelter is insulation, and the two big enemies of you keeping warm are the wind and the ground—both of which will suck the heat right from your body—so remember, no matter what form of shelter you use:
- Keep it out of the wind. Use natural wind-blocks, like the leeward side of hills, large boulders, or at least a tree (a live one; not a dead one, which can tip over in a storm).
- Insulate the floor. Use sleeping pads if you have them but put them on top of a bed of evergreen branches, pine needles, or dry leaves (all of which can substitute for a pad). The more insulation between you and the ground, the better off you'll be.
- Keep your shelter as small as possible. Freeze-out veterans know all about this one. The smaller your shelter, the warmer it will be, since you will waste less collective body heat warming the air inside.
- If you have a tent, you already have your shelter. Congratulations. Set it up somewhere out of the wind.

No tent? Use your emergency shelter—a ground cloth, poncho, or emergency blanket—along with rope and sticks for support (and stones as anchors to weigh down corners and edges) to make a simple A-frame or lean-to.

(You should have some form of emergency shelter, as it is on the 10 Essentials list, but if you do not, use layers of evergreen or leafy branches to make an old-school lean-to. Drafty, but better than nothing.)

Keep it close to the ground—and, again, somewhere out of the wind.

A gently sloping site with good drainage is important so you won't get as wet.

Near a water source is good for getting water—but be high enough above it that you won't get caught in a flash flood.

Mark the shelter with bright, unnatural colors (hopefully, Stew packed one of his loud Hawaiian shirts) so rescuers can more easily see it—from the air or the ground.

In winter, the best insulator around is the snow itself. Build a snow cave (essentially a lean-to packed all around with snow with a tiny opening and some air vents). If you don't know how, come on the annual freeze-out trip (in Jan or Feb) and you will learn.

4 - Build a fire

Building a fire is the fourth priority in any wilderness survival situation

Fires are hugely important. They keep you warm, dry out wet clothes, melt snow for water (or purify spring water), signal rescuers, heat food or drinks (which helps keep you warm), and just as importantly they can make you feel better. Remember: keeping up your spirits is a survival technique.

Fire buildings rules

Make a fire circle of stones and build a fire.

Dry, dead wood burns much better than wet or living wood. (If it is wet out, you'll find relatively dryer stuff near the base of trees.) Tag-team healthy members of the group to collect wood so that no one stays too long away from the warmth. Try to collect enough wood to last all night before it gets dark.

Keep the fire modestly-sized—large enough to work as a warming/drying/signaling device, but not so huge you use up all your wood.

You will need three things to burn:

- Tinder (small, easily burnable material to start the fire).
- Kindling (twigs and sticks no thicker than a pencil to get the fire going).
- Fuel (larger pieces of wood to keep the fire going and provide coals—useful for cooking and restarting a fire that has flamed out).

Teepee-style fires tend to be easiest, both to build and to light in the wind. Simply put a small pile of tinder down, surround it with a teepee of small kindling, then a layer of larger kindling, then layers of progressively larger sticks. Leave a gap through which to light the tinder. Presto: fire.

Starting a fire

Your 10 essentials kit should have three fire-starting methods in it (lighter in a plastic baggies, waterproof matches, flint-and-steel), plus some tinder (drier lint or a short length of frayable twine).

Good sources of natural tinder:

- Tree bark (especially birch, or the inner bark of cedar, elm, or cottonwood).
- Dry grass.
- Wood shavings.
- (For the record: Leaves make terrible tinder.)

The three important fire-starting methods to bring

- Lighter
- Waterproof matches
- Flint and steel

OK, macho wilderness skills aside, the single best way to start a fire in the woods is with a plain old lighter. It is not cheating to use a Bic.

Still, always carry at least three methods of starting a fire—just in case the lighter fails (you could lose it, or lose the flint out of it, or it could simply run out of lighter fluid).

The best back-up method is waterproof matches (you can buy fancy ones from camping stores—or just melt some candle wax and dip the heads of regular kitchen matches in the wax to waterproof them). Carry them in a waterproof container—and don't forget to bring along a striking surface! (Lighting matches on beard scruff only works in old westerns).

The third best back-up is the good old flint-and-steel. You don't even have to keep it dry. These days, strike-starter fire kits are not always made of actual flint and steel but of any two elements that make a spark when banged together. Camping stores like REI sell a bunch of options; pick your poison. Still, it's a pain starting a fire with sparks rather than the open flame of a lighter or match; you'll need good, dry tinder and plenty of practice. (So bring it and try it on the next trip.)

The three famous-but-pointless fire-starting methods

- "Rubbing two sticks together" is a pain in the butt. It takes a long time to build a proper fire wooden fire drill, and an even longer time to master making one work. Remember, in a survival situation, you do not want to expend energy on useless activities that will not only drain your energy level... but could also cause injury!

(For the record: you don't actually "rub two sticks." You make a kind of bow using one stick; wrap the "bowstring" around a second stick called the spindle—sharpened at one end and made of a dry hardwood; put the spindle, point first, into a hollowed-out depression in a fireboard—a larger stick or flat log made of dry softwood; also put into that depression a bit of the finest tinder you can muster; hold the top of the spindle with a block so you don't bore a hole through your hand; then use your other hand to saw the bow back and forth for, like, an hour, causing the spindle to rotate back and forth like a drill. As it does, its end will slowly get hot enough to turn into a tiny glowing ember of a coal. Hold that ember against the tinder and gently blow on it to catch the tinder on fire. Then move the tinder quickly into the prepared fire. That's the theory, anyway.)

- While a large magnifying glass can, indeed, start a fire on a bright sunny day, it's useless at night, and it has to be a big glass, one worthy of Sherlock Holmes; that tiny magnifying glass on the pocket knife is nowhere near powerful enough.
- Finally: Yes, putting a 9-volt battery against steel wool will cause the filaments of the steel wool to burn. It looks cool, and if you act fast, you can actually use the burning filaments to start some tinder on fire. We've done it before for fun, but it's really more of a camping parlor trick. I mean, honestly: who packs steel wool or a 9-volt battery to go camping? You're much better off simply bringing a lighter and some matches.

5 - Signal for help

Signaling for help is the fifth priority in any wilderness survival situation

If you are lost, the best way to become un-lost is to be found. Remember: You are only likely to get yourself more lost; let someone rescue you.

The best way to help rescuers find you is to signal them

Use your electronics

No points for being old-school about this. Whip out that cellphone and call the ranger or 911, whichever is more appropriate. No signal? Try a clearing or a hilltop.

This is a good reason to keep your cellphone off while out in the woods. You need to conserve battery strength so you can use it when you really need it. (Also, updating Facebook from the trail is *déclassé*, as is playing Angry Birds in your tent. Both will get your mobile phone confiscated by an adult leader.)

If you will be in serious back-country for longer periods of time, consider renting a satellite phone (as we did for the Alaska trip). You can get them from Telestial.com, Mobal.com, or Cellularabroad.com.

Make noise

The international signal for "help!" in the wilderness is three repeated loud sound blasts. That means three blasts on an emergency whistle, three shouts ("Help!" works nicely), three blasts on a boat horn, three shots from a gun (not that we carry them, but good to know), or whatever.

Wait a few minutes, then repeat the sound.

Bright colors

Clash with your surroundings. Spread brightly colored camping gear or clothing some place rescuers can see it—both from the ground of from the air.

Movement helps too—think: flapping, brightly colored flag.

Signaling mirrors

There is an art to signaling with a mirror—small ones come with emergency kits from camping supply stores. You can also bring an old CD or blank DVD and use it. In a pinch, steal someone's glasses and use those.

If the sun is shining, use the mirror to reflect a flash of sunlight toward potential rescuers, epicycle SAR planes and helicopters or other hikers you can see in the distance.

Signaling mirrors have a hole in them (as do CDs and DVDs). Peer through that hole, hold your other arm fully extended in front of you with two fingers raised in a V, and use that V as a sight to draw a bead on a rescuer, making sure the light from the mirrors is reflected on your finger-V. Tilt the mirror a tiny bit back and forth to create flashes.

Fire & smoke

A smoky fire can help rescuers pinpoint you by day or night.

Wet wood, wet leaves, moss, ferns, pitchy wood, and other fuel normally best avoided are your friends when lost, as they will create much more smoke.

Ground signals

Lay out logs, brightly colored camping gear, or anything else you can find in a clearing to form oversized signals to anyone scanning the ground from the air.

Yes, you can just spell out "H E L P," but, technically, you are supposed to use the following code:

- V - Require assistance
- X - Require medical assistance
- ↑ - Headed this way

6 - Drink water

Having safe drinking water is the sixth priority in any wilderness survival situation

Drink water. Lots of water. You can go days—even weeks—without food, but you will die within days without water.

Dehydration will also hasten many illnesses and make it harder to function—and therefore to do what it takes to survive.

When doing strenuous activity, try to drink 6–8 liters (or quarts) of water per day, and a bare minimum of 4 liters (4 quarts) of water per day—much more if water supplies are plentiful.

If you are mostly sitting around, waiting to be rescued, 1–2 liters per day is sufficient—though more is always better.

[How to drink water \(seriously\)](#)

Ideally, don't wait long stretches then guzzle and gulp; the water will just go right through you and you'll waste most of it by peeing.

Sip water continuously throughout the day so that your body has a chance to absorb it all.

If your urine is pale yellow, you're drinking enough. If it is dark yellow or gold and rather smelly, you are dehydrated.

[Why do we treat water?](#)

Untreated water can make you sick (think: explosive diarrhea). This is not a huge issue in the U.S. and Canada, but it can happen.

Here are the two water-borne illnesses you are most likely to catch (and before you think we are just being overly cautious, Reid has suffered both of them—admittedly the Crypto was from drinking untreated water in a small native village in Mexico, but there were extenuating circumstances that time):

- Giardiasis: diarrhea, gas, nausea, cramps. Appears in 1-2 weeks, lasts 4-6 weeks or longer. Needs hard-core antibiotics to kick.
- Cryptosporidiosis: diarrhea, loose stool, cramps, nausea, slight fever. Appears in 2-10 days; lasts 2 weeks. No treatment.

There are three kinds of beasties that can make you sick: protozoa, bacteria, and viruses. You are most at risk from the protozoa (especially giardia), but luckily those are the largest and easiest to kill.

It is exceedingly rare to find viruses in U.S. water.

[How to find water](#)

Rule #1: Conserve sweat, not water. If you sweat 1/2-gallon obtaining 1 cup, you're worse off.

When looking for a good source of water in the wild:

- Always try to get the clearest water you can.
- Collect from slowly running water if possible (but not from rapids).
- Don't use smelly water.

Finding visible water:

- Where to find water: Valley bottoms, the bases of rock cliffs, ends of animal paths.
- Streams. Again, running water better than still.

- Look for hollow stumps, large rocks with depressions.

Working for your water

- Bandana. Good for sopping up hard-to-reach water and for collecting dew.
- Dew: Collect dew in mornings. Tie bandanas to your ankle to walk through grasses. Wipe broad leaves. Wring directly into your mouth or into cup.
- Dig in a dry stream bed. Water will often still be flowing underneath the surface. Best bet: the outside edge of a sharp bend. Look for sandy part, dig (sometimes up to 6 feet).
- Tree branch still. Tie mouth of large plastic bag (preferably clear) around tree branch, as airtight as possible at the open end. Leave a small rock in it so that it pulls down one corner. You can poke a hole in the bottom to drain water, but it's re-useable if you build it with a siphon tube. It'll take a full, sunny day to get a cup of water.
- Solar still. Dig hole 3 feet wide and 2 feet deep in a sunny yet damp spot. Place leafy branches in it (crush the leaves a bit) and a collector at the bottom. Cover hole with plastic sheet. Tamp the plastic firmly down all around. Place rock in middle of sheet directly above collector so water will run down the depression and drip into the reservoir. This, too, is a slow process (a cup or so per day) but works even in semi-deserts.
- Finding water in vegetation works mainly in jungles (banana trees) and dry environments where certain plants (cacti) harbor water. Just chop it about 2 feet from the ground and, if necessary, hollow a bowl into the stump to collect water as it seeps up. Our deciduous forests, though, aren't too good for that sort of thing.
- Some food (most fruits, many vegetables) are rich in water and can help keep you hydrated. Fish flesh, too, though it's high in protein (which requires more personal hydration), so it's best to wring the raw flesh inside a cloth, then wring the cloth out.
- Extreme situations: The ocular cavity of a freshly killed fish is filled with desalinated water. Catch a fish, poke out its eye, and suck it dry. (You can also crack the spine and suck the bit of water stored in the vertebrae, but you get very little—and that's almost as disgusting as the eye thing.)

[How to treat water](#)

Treat all water that doesn't come from a tap by filtering it (which takes care of larger beasties, like protozoa and bacteria) or by purifying it by using a sterilizer bottle, iodine or chlorine tablets, or a UV sterilizer like a SteriPen (all of which are chemical processes that also get tiny viruses).

There are actually four main methods of removing harmful microorganisms from water:

- Heat
- Chemicals/Electrolysis
- Filtration
- Radiation

For backpacking in the U.S. with a group, the easiest method is to just use a filter. You don't need the extra protection of sterilization. (Old school tablets—iodine or chlorine—work great, but with the big drawback that you have to wait at least 30 minutes—and preferably 4 hours—before drinking.)

For solo travel and international travel, a sterilizer bottle or UV pen is easiest and best.

Here are the pros, cons, and details on each method of water treatment and what they kill.

	Protozoa (1-300 microns) (<i>cryptosporidia, giardia</i>)	Bacteria (0.1–10 microns) (<i>e. coli, salmonella, cholera</i>)	Viruses (0.05–0.1 microns) (<i>Hep A, Hep B, rotavirus, Norwalk, polio, HIV, Anthrax</i>)	Pros	Cons	Cost (from REI)
Boiling	YES	YES	YES	<ul style="list-style-type: none"> • Cheap • No special equipment • Only takes 10 min. (once it is boiling) • Works on murky water 	<ul style="list-style-type: none"> • Time • Fuel • Wait 20–30 min. total (10–20 for it to boil, then 10 while boiling) 	Free (well, fuel)
UV light (SteriPEN)	YES	YES	YES	<ul style="list-style-type: none"> • Works instantly • Gets everything • Looks cool 	<ul style="list-style-type: none"> • Pricey • Need batteries (solar avail. for \$140) • Breakable • Need clear water 	\$90
Oxidant purifiers (MSR MIOYES salt tablets)	YES (giardia in 30 min.; crypto in 4 hr)	YES (15 min.)	YES (15 min.)	<ul style="list-style-type: none"> • Handy • Can replenish w/ rock salt 	<ul style="list-style-type: none"> • Wait min. 30 min. (4 hr pref.) • Need batteries • Not good w/cold water • Fussy like a science experiment 	\$140
Chlorine-dioxide tablets/drops	YES (giardia in 30 min.; crypto in 4 hr)	YES (15 min.)	YES (15 min.)	<ul style="list-style-type: none"> • Cheap • Simple to use • Gets everything 	<ul style="list-style-type: none"> • Wait min. 30 min. (4 hr. pref.) • Runs out (need 1 tab per bottle) • Water tastes faintly like a swimming pool • Expires 	\$10
Iodine tablets	YES (no Crypto)	YES	YES	<ul style="list-style-type: none"> • Cheap • Simple to use 	<ul style="list-style-type: none"> • Doesn't do Crypto • Tastes awful (but can get neutralizing tabs) • Runs out (need 2 tabs per bottle) 	\$6.50 (\$8.50 w/neutr. tabs)
Sterilizer bottle	YES	YES	YES	<ul style="list-style-type: none"> • Works instantly • Insanely simple • Triple filtration means it gets Crypto 	<ul style="list-style-type: none"> • Low yield • Slow flow • Slight iodine taste • More for personal drinking than obtaining cooking water 	\$50
Filter	YES	YES	NO	<ul style="list-style-type: none"> • Requires no tablets or supplies (just the filter itself) • Good for large quantities 	<ul style="list-style-type: none"> • Doesn't do viruses (not a concern in North America, but a problem elsewhere) 	\$50–\$80

7 - Food: Don't worry about it

Having food is the seventh priority in any wilderness survival situation

Yes, worrying about food is the last thing on the list in any wilderness survival situation

It's not that you need not worry about food. It is that food is the least of your worries. Being hungry is no fun, but it won't kill you. Not for 2-4 weeks, at least.

You can go a week or two without food if necessary—and your precious energies are far better used securing steps 1-6 (first aid, shelter, fire, signaling, and water) than in trying to get food (catching fish or animals, gathering edible plants).

Supposedly, you have packed enough food to last your entire trip, plus trail snacks, plus an emergency ration.

If you are sitting around waiting to be rescued and not continuing to hike, you will be burning far fewer calories, which means that store of food can be stretched to last a whole lot longer.

(Also, this is 60, so you've probably packed way too much food anyway. You do know most people do not have both a peanut-butter-and-jelly sandwich AND a cheese and salami sandwich for lunch?)

Even a weekend backpacking trip's-worth of food should last you a week if rationed wisely. No need to start rooting around for nuts and berries or attempting to trap animals just yet. (That was written in jest, of course. You should never eat wild berries, or mushrooms for that matter. Many are poisonous. OK, that time on the Black Forest Trail didn't count; we knew for a fact those were blueberries.)

LESSON 2 (ACADEMIC): THE PSYCHOLOGY OF SURVIVAL - THE 'WILL-TO-LIVE'

Cognition underlies all our behavior, which includes survival behavior. Yet, when life is threatened, cognitive function, working memory, and other executive function/faculties often become impaired during survival situations, which is why so many people in survival situations perish unnecessarily.

Anyone forced into a survival situation, is going to experience unimaginable stressors that will ultimately influence their thinking. The overwhelming amount of stress that a survival situation will produce, and how you ultimately respond to that stress, will be the determining factor in your ability to survive that situation.

2.1 - How Fear Affects Your Survival

In a survival situation, fear usually affects a person in one of two ways. The first example is those that let fear take over to the point that they are unable to act. These people literally become debilitated by fear; so much so that they are literally unable to make any decisive decisions until ultimately their indecisiveness becomes their downfall.

The second example is people who let fear drive their actions. These people give into their body's natural chemical reaction and allow adrenaline take over. They are often quick to make decisions, usually at the expense of thinking, and they ultimately fail because they get themselves into trouble that should have been easily avoided.

In both cases, the root cause of the problem is fear, and how the person lets that fear dictate what happens to them.

2.2 - Developing a Survival Mindset

The key to your survival, in any stressful situation, is your ability to manage your thoughts, your anxiety, and your fears. Your ability to take control of your mind is paramount to your ability to survive. The reactions that your body will experience in a survival situation when used in a healthy way can actually propel you into doing things you never dreamed possible.

There are a couple of things that you can do to ensure your ability to handle stressful situations.

Check your Ego at the Door

Don't give in to, "it will never happen to me" thinking. People often fool themselves into thinking that they have no fears, especially men. Most men consider fear to be a weakness; so much so, that a lot of them never admit, or analyze their own fears.

Even the strongest man in the world can't escape their body's reaction to a stressful situation. It's wired into our DNA and is a natural part of the human condition.

Don't pretend that you have no fears. Instead, truthfully analyze what things would cause the most anxiety should you be forced into a survival situation. By analyzing your fears, you can begin to train yourself in those areas of concern and build confidence that can help you through those fearful situations.

Cultivate a positive mental attitude

The ability to maintain a positive mental attitude during a survival situation is something that needs to be taken seriously. It's also something that you need to start working on now. Being able to maintain a positive attitude in a stressful situation takes practice. It's not an easy thing to master, but once you do, it will be well worth the effort.

Train, Train & Keep on Training

Those who prepare themselves, through rigorous training, are less likely to submit to fear. In fact, the more you train yourself – in real world situations – the more likely it is that you'll be able to manage your feelings during a real situation.

Most survival situations can be overcome by practicing the basics of survival. The more you train, the better you will be able to respond both physically and mentally to a stressful situation

LESSON 3 (ACADEMIC): INTRODUCTION TO BASIC WILDERNESS SURVIVAL PLANNING

Most survival situations happen in one of two ways. First, you might find yourself thrust into a situation that was not of your own making. This could be anything from a plane crash, to a terrorist attack, or even a home invasion. While you can plan for them, they often come as a surprise and are often beyond your control in the initial stages of the event.

The second type of scenarios are those that develop over time. They're often preventable, had you recognized the danger signs and acted before things started to spiral out of control. Unfortunately, this second scenario is the most common. It often comes about because of either a lack of foresight and planning, or on the other side of the coin, arrogance and over confidence in an ability that you may not have.

There is one thing that both scenarios often have in common, and that is the basics. The basics are often what separate those that survive from those that perish.

Think of it this way... From the elite special forces, to highly trained professional athletes, there's one thing that separates them from the guy sitting on the couch eating Doritos. It isn't some super human power or even being born with a gift or talent, because for the most part that's garbage.

IT'S THE BASICS.

When a professional basketball player hits the game winning free throw, it's not because he was born to play basketball. It's because he spent hundreds maybe even thousands of hours shooting free throws. When the time came to make the shot, he made it because he made that same shot ten thousand times before.

When an elite sniper takes out a target from 1,000 yards, it's not because of some special secret training. It's because he was drilled in the basics. He's made that shot at the range thousands of times. When the moment came, he was ready because he learned and drilled the basics.

Most survival situations can be prevented or survived by learning the basics and then doing them over and over again. Yes, there are certain skills that go beyond the basics, but the basics are the foundation that everything else is built upon.

So, what are the basics when it comes to wilderness survival?

3.1 - Pre-trip Planning

Pre-trip planning is essential for a successful backpacking excursion. Mapping out your entire route beforehand lowers your chances of getting lost, choosing longer hikes than you have time for, or, worst, getting turned back before you begin due to trail closures, forgotten permits or adverse trail conditions.

Part of pre-trip planning includes:

- Discussing your plans with others that will not be attending the trip (parent, spouse, older sibling, a friend, etc).
- Giving detailed routes of your trip and estimated times in between stopping points (check-in points if you will have a phone signal).
- Giving an estimate of how long your trip will last and approximately what time the non-attending person can expect to hear from you.
- Checking the weather, days in advance, and planning accordingly.
- Researching any adverse expectations and planning the necessary precautions.
- Thinking about any possible situations which may cause you to have to implement survival skills.
- Checking in with local park rangers, police, or emergency personnel upon arrival.
- Developing a pre-trip survival kit in case the unexpected happens

3.2 - Crisis Planning

There is an unquestionable importance of planning and its relationship to prevention and mitigating risk during outdoor endeavors. However, despite making a pre-trip plan, Murphy's law has gone into full effect... and "whatever could have gone wrong, has gone wrong."

Stop, Think, Observe, and Plan...make a plan and stick to it.

Remember, there is an unbreakable relationship between training, confidence, and survival.

Expecting the Unexpected

We will inevitably face crises, but few are well prepared to deal with them. The following elements summarize the findings of research and experience about what it takes to respond effectively in crisis situations.

Effective crisis response plans include the following four essential elements:

- 1) **A representative set of planning scenarios.** It's essential to create a set of crisis scenarios that serve to guide planning. This need not be an exhaustive list of everything that could happen, but it should represent a broad range of potential emergency situations that the group could plausibly face.
- 2) **A flexible set of responses.** If response options aren't flexible, novel events or combinations of events can yield ineffective or "brittle" responses.
- 3) **A plan that matches responses to scenarios.** This is the core plan that links each of the planning scenarios to a pre-planned response that will be immediately activated.
- 4) **A designated chain of command.** One finding of research on crisis response is that decentralized organizations, which are so good at helping promote innovation in normal times, prove to be woefully inadequate in times of crisis. Crisis demands a rapid centralized response and this, in turn, requires a very clear line of command and the ability to shift into what the military term "war fighting mode" rapidly. Otherwise the organization responds incoherently. This means creating a centralized chain-of-command in which the leader delegates response actions.

LESSON 4 (PERFORMANCE): SURVIVAL KITS

4.1 - The Ten (10) Essentials for Outdoor Activities

In the 1930s, a Seattle outdoors club called the Mountaineers came up with the original "ten essentials," a list of every item you need to survive in the great outdoors.

This list has since been refined into the Ten Essential Systems—which is more comprehensive, but doesn't quite have the same ring to it—and every outdoorsman has his own shortlist of "eleventh essential" candidates.

We make our Boy Scouts memorize this list pretty early on, and they each keep a small stuff-sack packed with their own 10E kit—kind of like a go-bag for camping.

All you need to add is a pack, sleeping kit (tent, sleeping bag, sleeping pad), camp stove, and change of clothes and you're good to go on any backwoods trip.

- **Combustion.** It's wise to carry three sources of fire: lighters are easiest, but don't rely on them exclusively (and keep them in a plastic baggie to keep them dry); waterproof matches are handy (carry in waterproof container); a flint-and-steel type device is a good backup. Also bring along some tinder—dryer lint or a short length of frayable twine is good and easy.
- **Hydration.** Bring at least a one-liter water bottle (preferably two)—or a Camelback-style personal dromedary—as well as some method of filtering and/or sterilizing water from streams. For that, water pumps are reliable; chlorine tablets or iodine tablets are slow but effective; UV sterilizing

wands are fast and nifty. The troop will always have a water filter or two on trips but carrying our own iodine tablets is wise.

- **Nutrition.** Always pack a bit more food than you technically need. The troop will provide food, but always have an emergency ration of your own (Granola bar, Powerbar, Snickers, GORP, whatever).
- **Navigation.** - GPS. Bring your own compass. GPS units are fun, but always also have a topographical trail map and compass as they don't need batteries or satellite signals to work. And yes: it has to be an actual, physical topo map. (Note: Having the Trails.com app on your iPhone is not enough. Yes, Jon, I'm talking to you.)
- **Illumination** - Flashlights are fine; headlamps are better (they leave your hands free). Bring spare batteries.
- **Tool and repair kit.** A Swiss Army knife Partner or Leatherman-like multitool is essential. Needle and thread and dental floss (a super-strong thread substitute) are very handy. Wrap a few feet of duct tape around your hiking pole or a pencil for tent-pathing and pack-fixing.
- **First-Aid Kit.** Self-explanatory. It's easiest to buy a pre-made hiker's kit from REI or any other camping supply store. The troop leaders will always have at least two first aid kits, but it's wise to carry a small one of your own. I always bring at least Band-Aids, pain relievers (including aspirin for potential heart issues), moleskin (for blisters), and Benadryl (for stings and other unexpected allergic reactions). Many argue that, these days, a cellphone is one of the most important items in your first aid kit so you can call for help if needed. Problem: much of the Great Outdoors is off the grid. (Mountaintops are best for catching stray signals.) I pack one just in case (but see the note below under "Communication").
- **Insulation.** Bring an extra layer of clothing. I like silk long underwear Supplies (light and small—and comfy) plus a fleece top, a warm hat, and a lightweight rain jacket (which does double duty as an insulator and... well... as a rain jacket).
- **Emergency shelter** - Space blankets are great and pack small. Even better to bring a poncho (doubles as rain gear).
- **Sun protection.** Bring sunscreen, sunglasses, UPF lip balm, and a hat with an all-around brim. Long pants and sleeves count, too. Use them all.

4.2 - Personal Wilderness Survival Kit

Whether you're planning a day hike in a local State Park or a week-long adventure in the wilderness, always plan for the unexpected. A wilderness survival kit is a must have item every scout should bring with them.

A personal wilderness survival kit should be small enough to be carried on your body without being a burden. Anything which is an inconvenience will be more apt to be left behind. Make it only the essential items to survive an emergency situation of a short duration. After all, you're not going into the wilderness to homestead. This is just a simple hike to enjoy nature's wonders.

Now what items are essential? These should be carried where they are readily accessible. Less important items can be stowed away in your pack.

I like to keep a map and compass handy, although these days, I use a GPS (Global Positioning System) a lot more than a compass. Here's a word of warning, NEVER rely solely on a GPS as a means of navigation. A GPS is fragile. It can be dropped and break. Learn how to use a compass. Also make sure you carry extra batteries. If it's cold, carry the extra batteries in an inside pocket to protect them from cold. I like to put extra batteries inside a Ziplock bag to keep them dry.

With the price of GPS dropping more every year, I strongly recommend adding this item to your gear list. Adding a way point for the trail head to your GPS makes finding your way back a lot easier. It also lets you know just how far you need to go to get back before dark.

As you select items for your wilderness survival kit, choose items that have more than one purpose whenever possible. DO whatever you can to cut down on the size and weight of your survival kit. Above all else, do not duplicate items.

Your personal wilderness survival kit doesn't need to be elaborate. I used to use an Army Surplus Ammo pouch to carry my things in. A Fanny pack can work well for something when you're not going to carry a day pack. An empty Band-Aid box or even a soap dish works well for a basic survival kit container. I've seen a lot of plastic cases at the supermarket that are water proof and air tight, small enough to carry easily and durable.

Remember, if it can get wet or critters can get to it... put it in a waterproof container, even if it is just a Ziploc bag.

4.3 - Essential for a Wilderness Survival Kit

First of all, some sort of first aid items. Since we're talking survival, I mean REAL first aid item, not band aids and first aid ointment. Get a triangle bandage and some large gauze pads to use for compresses. If you need a first aid kit in a survival situation, you don't need a Band-Aid, you need serious help. A triangle bandage can be used for a pressure dressing or to attach a splint. This is useful. Also, a basic pneumatic tourniquet and blood coagulant powder (blood clotting powder) are a must. Remember, if you need emergency first aid, it's because things have gone south really quick and a Scooby-Doo band aid won't help the situation. I'd recommend picking up a good personal first aid kit from your local Chapter of the American Red Cross or drug store and putting it in your day pack. Better yet, pick up several and put one in every one of your backpacks so you never go off without it.

Your basic wilderness survival kit should include:

- First aid items.
- Water purification system.
- Fire starting equipment.
- Signaling items.
- Food procurement items.
- Shelter items.

Some examples of these items are:

- Butane Lighter, magnesium fire starting tool, waterproof matches.
- Snare wire.
- Signaling mirror.
- Compass.
- Fishing line.
- Fishhooks.
- Candle.
- Small magnifying lens.
- Water purification tablets.
- Solar blanket.
- Surgical blades.
- Butterfly sutures.

- Pneumatic tourniquets.
- Blood clotting powder.
- Super glue.
- Needle and thread.
- Knife.

Your Best Survival Tool

The best advice is to think ahead. Learn and practice basic wilderness skills so you're prepared if you ever need to use survival techniques. Take a First Aid course and learn CPR.

Don't overstep your abilities. Know your limits. Don't attempt to hike farther in one day than is a realistic goal. Don't allow others to force you to overextend your limits. If you're not comfortable with a trail or the pace, speak up!

Whenever you venture into the outdoors, take time to enjoy the sights, but remember that you are responsible for yourself. Plan for the unexpected. Make your wilderness survival kit. Don't allow an unfortunate incident to force you into a survival experience.

Above all, your most important survival tool is your mind... always Keep it sharp and plan for the unexpected.

LESSON 5 (PERFORMANCE): APPLYING CRITICAL SKILLS – SURVIVAL CAMPOUT

Upon arrival at the campsite, leaders/instructors will provide scouts with a scenario wherein they will need to implement their survival skills. This will be done using the E.D.G.E. method.

Items scouts must bring to the campout:

- One (1) knife per scout
- One (1) hatchet per six (6) scouts
- Fifty-feet (50') of paracord or rope per scout
- One (1) large metal container/pot for collecting and boiling water (not for cooking) per six (6) scouts
- One (1) empty, 1-gallon milk jug per scout
- One (1) empty, 2-liter plastic soda bottle per scout
- One (1) water bottle per scout
- Two (2) small tarps that are no bigger than 8x10 per scout
- Four (4) emergency blankets per scout
- One (1) steel flint Firestarter and one (1) small fire-starting kit per scout
- One (1) bed roll per scout
- One (1) weather appropriate sleeping bag per scout
- One (1) wool blanket per scout
- One (1) rain poncho per scout
- One (1) flashlight or one (1) headlamp per scout
- One (1) compass per scout
- One (1) signaling mirror per scout
- One (1) whistle per scout
- One (1) first aid kit per scout

- Two (2) sets of weather-appropriate clothing per scout (includes jacket, head/face protection, gloves, etc.)
- Four (4) trail bars or granola bars per scout
- Four (4) instant packages of oatmeal per scout
- One (1) drinking cup per scout
- One (1) set of eating utensils per scout (no mess kits)

5.1 - Performance Task: Assessing a bad situation

Explain

- a) Leaders/instructors will discuss how to assess an emergency situation
 - i) Discuss importance remaining calm to mitigate further exacerbation of the situation
 - (1) Degradation of fine and gross motor skill function (due to increased adrenaline)
 - (2) Internal fixation on limited skills/knowledge, which creates visible, external anxiety and reduction in cognitive faculties; this causes further panic in a group setting
 - ii) Discuss assessing the situation, surrounding environment, and available physical & human resources within proximity

- b) Leaders/instructors will discuss what is a tourniquet and why is it used?
 - i) Basic overview of the human vascular system function (circulatory system)
 - ii) Discuss difference between arterial and superficial vascular bleeding
 - iii) Discuss pressure points (skeletal hinges) and extremity elevation
 - iv) Discuss types of tourniquets, how they can be used, and proper techniques for applying and monitoring a tourniquet to mitigate further complications
 - (1) Pneumatic/non-pneumatic tourniquets
 - (a) Non-pneumatic tourniquets produce hazardously high, inconsistent and uncontrolled pressures around limbs. Only use for fatal arterial blood flow or exsanguination
 - (2) Improper venous tourniquet that causes arterial flow occlusion (arterial inflow w/ outflow impediment). Complications include:
 - (a) Engorgement of the distal limb
 - (b) Draining of core blood
 - (c) Paradoxical bleeding
 - (d) Worsening shock
 - (3) Development of “compartment syndrome” in a closed wound, which require fasciotomy (relieving of pressure by cutaneous incision)
 - (4) Timing of non-pneumatic tourniquets to allow for blood flow/circulation
 - v) Discuss when to use, and when not to use, a tourniquet
 - (1) Shock abatement techniques
 - (2) Types of situations (life-threatening hemorrhage/exsanguination versus manageable bleeding with pressure only or pressure dressing application). Assessment of evacuation delays to definitive care.
 - (a) Direct manual pressure (do’s and don’ts) - effective, but impractical for the extended periods of time
 - (b) Pressure dressing (do’s and don’ts) - can lead to continued unrecognized bleeding
 - (c) Elevation of extremity
 - (d) Pressure dressing or Improvised tourniquet (last resort – life saving technique but can cause further complications).
 - (i) Femoral artery hemorrhaging

- (ii) Ulnar artery hemorrhaging
 - (3) Medical concerns
 - (4) Short/Long-term effects
 - (5) How to get permission to use a tourniquet
- c) Leaders/instructors will discuss how to take charge in an emergency situation.
- i) Understanding the “Good Samaritan Law”
 - ii) Discuss techniques for remaining calm
 - iii) Preventing/treating shock
 - iv) Techniques for improving fine/gross motor skills
 - v) Using human capital (within proximity) for task delegation/assignment
 - vi) Proper monitoring of circulation during tourniquet process

Demonstrate:

Leaders/instructors and scouts shall co-demonstrate how to assess an emergency situation, take charge, and utilize resources in proximity

After the skills and safety briefing, leaders/instructors will give the scouts their emergency scenario. Scouts will be given 30 minutes to assess and discuss a plan.

5.2 - Performance Task: Field Triage & Emergency First Aid

After the situational assessment, scouts will simulate the application of a tourniquet to a hemorrhage injury to one (1) of the members of the group who shall remain incapacitated for the duration of the campout and shall not be able to assist the other members of the group.

Guide:

Leaders/instructors with guide the scouts as they demonstrate the following:

- a) Demonstrate how to get permission to use a tourniquet
 - i) Is the injured person responsive or unresponsive?
- b) Demonstrate constant communication with the injured person even if the person is unresponsive or passes out during the procedure
- c) Demonstrate how to properly use a tourniquet
- d) Demonstrate how to treat for shock
- e) Demonstrate how to monitor circulation and for complications
- f) Demonstrate how to coordinate transport/evacuation
- g) Demonstrate how to report information to emergency personnel or first responders

Enable (Performance Scenario):

During a hike to a backcountry location, a scout tumbles down the side of a mountain. The scout suffers a compound fracture and is in shock with other visual injuries. Immediately after the incident occurs, amidst the panic and chaos, the scouts climb down and must assess the severity of the injuries and apply techniques learned throughout their training.

The scout has sustained a life-threatening compound fracture in the thigh and severe hemorrhaging is occurring; the scout is unresponsive (in shock) other scouts are panic-stricken. The scout has minutes before irreversible exsanguination occurs. The scouts must take charge of the situation, allocate any available resources, apply a non-pneumatic tourniquet, and monitor circulation while waiting for help to arrive; however, because they are unsure of their location, it may be up to 72 hours before help arrives.

The scouts must:

- a) Assess the situation, takes charge, and utilizes resources in proximity
- b) Ask for permission to use a tourniquet (responsive or unresponsive)
- c) Maintain constant communication with the injured scout even if the scout is unresponsive or passes out during the procedure
- d) Apply a tourniquet
- e) Treat for shock
- f) Monitor circulation and for complications
- g) Coordinate transport/evacuation
- h) Report information to emergency personnel or first responders

While reporting to emergency personnel, an inclement weather system occurs much sooner than anticipated and all communications are lost. As the scouts are unsure how long they will have to wait for help to arrive, the scouts shall:

- a) Demonstrate their ability to build a man-made, emergency shelter for the group (tarps, ponchos, emergency blankets, etc.), as well as a primitive shelter using only natural or readily available materials.
- b) Demonstrate their ability to start a fire by various means.
- c) Demonstrate their ability to use commonly carried signaling devices, as well as building other forms of S.O.S. signaling.
- d) Demonstrate their ability to collect water and purify it for drinking.
- e) Demonstrate their ability to find any food available.
- f) Demonstrate their ability to ID the cardinal directions, locate their position on a map, and determine topographic features. Once oriented, they shall demonstrate their ability to search for help and collect resources that can assist in their survival.
- g) Continue to monitor the injured scout for complications.

RECAP OF TRAINING COURSE OBJECTIVES

On Saturday evening, after all objectives have been successfully completed, leaders/instructors will provide a cracker barrel for the scouts while they discuss what the scouts should have learned during the training, discuss any lessons learned, and provide personal insight as to how they may feel better prepared to handle themselves during a backcountry camping excursion.