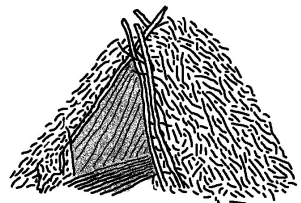


Self-Led Nature Outing Program



The Life God Has Planned for Us to Live

In a special sense Seventh-day Adventists have been set in the world as watchmen and light bearers. To them has been entrusted the last warning for a perishing world. On them is shining wonderful light from the word of God. They have been given a work of the most solemn import—the proclamation of the first, second, and third angels' messages. There is no other work of so great importance. They are to allow nothing else to absorb their attention. (*Testimonies for the Church Vol. 9, page 19.*)

So, let's look at the First Angel's Message.

Then I saw another angel flying in the midst of heaven, having the eternal gospel to preach to those who dwell on the earth, to every nation and tribe and tongue and people. He said with a loud voice, "Fear God and give Him glory, for the hour of His judgment has come. Worship Him who made heaven and earth, the sea and the springs of water." (Revelation 14:6-7.)

This message contains a call to worship God as the Creator. Since the root word for 'worship' is 'worth,' which carries the idea of 'value,' we need to ask ourselves, Do we 'value' God as the Creator?

Let's look at this from another angle. Where did God put Adam & Eve? —in the garden. And what was outside the garden? A grocery store? A shopping mall? A theater? A gym? —No. There was just a vast world full of nature —we would probably call it 'wilderness.'

And, after the "restoration of all things," (Acts 3:21), where will we be? —back in the garden again. From this we know that God intended us to live close to nature. This is the way He created us. But unfortunately nowadays, other than maybe some pictures of beautiful natural scenery, nature isn't even a part of many people's reality.

So the question begs to be asked: How can we truly appreciate Jesus' dying so that we can live, if we don't value the life close to nature that He has planned for us to live?

Those who sacrifice simplicity to fashion, and shut themselves away from the beauties of nature, *cannot be spiritually minded*. They cannot understand the skill and power of God as revealed in His created works; therefore their hearts do not quicken and throb with new love and interest, and they are not filled with awe and reverence as they see God in nature. (*Testimonies for the Church Vol. 2*, page 584, emphasis supplied.)

Here we see the importance of the First Angel's Message. If we ignore creation, we "cannot be spiritually minded. Is it any wonder then that as part of our final training for heaven we will go through a wilderness experience?"



Nature and the Sabbath

For the people of the world, living apart from nature is understandable. But for Christians, especially Seventh-day Adventists, it should be different. God has even given us a weekly holiday-memorial to Himself and His creation —the Sabbath, (see Exodus 20:8-11). So what better way to celebrate the Sabbath than spending time in nature? Let's look at a couple of quotations.

The Sabbath bids us behold in His created works the glory of the Creator. And it was because He desired us to do this that Jesus bound up His precious lessons with the beauty of natural things. *On the holy rest day, above all other days, we should study the messages that God has written for us in nature.* (*Christ's Object Lessons*, pages 25-26, emphasis supplied.)

Nature and revelation alike testify of God's love. Our Father in heaven is the source of life, of wisdom, and of joy. Look at the wonderful and beautiful things of nature.

Think of their marvelous adaptation to the needs and happiness, not only of man, but of all living creatures. (Steps to Christ, page 9, emphasis supplied.)

So, it is quite appropriate for us to regularly go on Sabbath afternoon nature outings. But, notice from these quotations that we are not just to enjoy the beauty of nature, fresh air, exercise and good fellowship on our outing. We are also encouraged here to study how, as an expression of His love, God has planned for our needs to be met by the things of nature, *and we are to study this on the Sabbath!*

Nature, the Sabbath, and Wilderness Survival

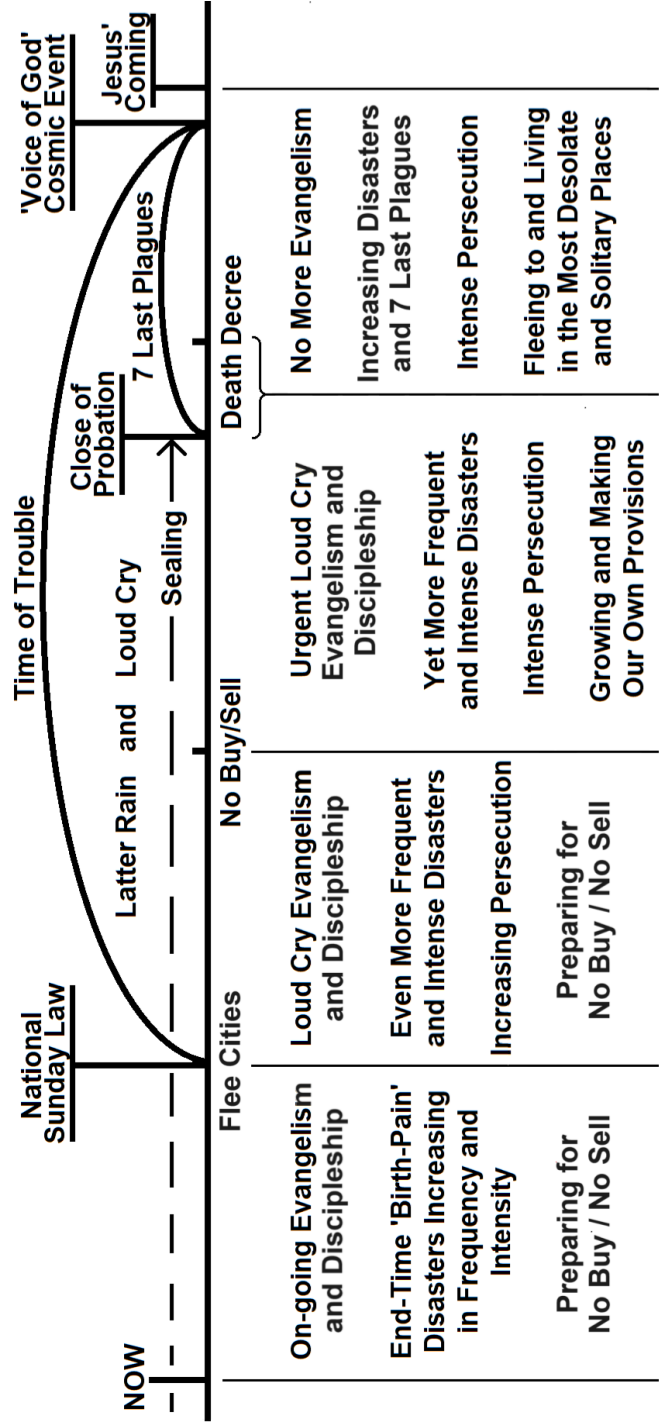
There is an interesting connection here, because learning how our needs can be met by the things of nature is the basis of 'wilderness survival.' And this topic should have a special significance for us, because Jesus has instructed His people to flee to the wilderness during the last part of the Time of Trouble just before He comes, (see Matthew 24:16).

As the decree issued by the various rulers of Christendom against commandment keepers shall withdraw the protection of government and abandon them to those who desire their destruction, the people of God will flee from the cities and villages and associate together in companies, dwelling in the most desolate and solitary places. Many will find refuge in the strongholds of the mountains. (*Great Controversy*, page 626.)

As a part of this experience, God plans to provide for our needs through the things of nature.

The mountains and hills are changing; the earth is waxing old like a garment; but the blessing of God, which spreads for His people a table in the wilderness, will never cease. (*Ministry of Healing*, page 200.)

Four Basic Time Periods Between Now and When Jesus Comes



If you are interested, here is the link to a more complete study on the end-time time-line: www.preparingtostand.org/wp-content/uploads/2022/09/Live-and-Act-booklet-stmt.pdf

Wilderness Survival in the End-Times

Look at the chart on the previous page and notice the characteristics of the four basic time-periods between now and when Jesus comes. Particularly note the last time-period.

Keep in mind that during Jesus' life here on earth, He literally lived out the Messianic Prophecies, (note especially Isaiah 53 and Psalm 22). In the same way, during the end-times we will live out the End-Time Prophecies. Therefore, it is important for us to study these prophecies so we will know what to do. Let's not just 'skip to the good part' like the Jews in Christ's time did and only focus on the Second Coming.

Also, remember what Jesus said in Matthew 24:13,

He that endures to the end will be saved.

In other words, those who will be saved are the ones who make it all the way through the final end-times to the very end. We find this same thought echoed in a dream Ellen White was given about a group of people heading up a path with heavily loaded wagons. As they progressed, the path grew narrower and steeper, and in order to keep going up the path they had to leave more and more things behind. So instead of the wagons they started out with, they ended up barefoot. (Please read this whole account in, 'An Impressive Dream,' pages 594-597 of *Testimonies for the Church, Vol 2.*)

In the 5th paragraph of this account we find something very significant. It says,

At every change some were left behind, ...

Every time they had to leave something in order to keep going up the path, there were those who stayed back. So we need to be careful we don't set up ourselves, and those God has called us to serve, to stay behind at one of these changes. This is one reason we have been counseled,

Our work is to prepare a people to stand in the great day of God. (*Testimonies for the Church Vol. 6*, page 394.)

Thus, rather than just focusing on spiritually preparing for Jesus' coming, we also need to help each other make it all the way through the end-times *physically*, so that when Jesus comes we will all still be *physically* standing there, ready and waiting for Him. (See also Hebrews 11:13-16.)



Unfortunately, the typical view of 'wilderness survival' is an unexpected experience. Thus the emphasis is on improvising and making-do until you can get out of the woods. However, from the prophecies we *know* we *will* be going to the wilderness, and staying there until Jesus comes.

Therefore, learning wilderness survival isn't just an 'interesting activity,' or something that is good to know 'just in case' we get stuck in the woods someday. It's something we need to be serious about learning, because we *will* be doing it, *soon* —for if we believe Jesus *is* coming 'soon,' then the final end-times must happen even 'sooner!'

God has given us the 'talents' of 'time' and 'opportunities,' (see Matthew 25:14-30, *Christ's Object Lessons*, page 342, 328, and *Testimonies for the Church*, Vol 5, page 321). If we 'bury' these 'talents' can we expect God to work miracles to provide for us? Instead, let's make use of these 'talents' to prepare ourselves and others so that we will know how to recognize and make use of God's wilderness blessings during our end-time wilderness experience.

We should now acquaint ourselves with God by proving His promises. (*Great Controversy*, page 622.)

Sabbath Afternoon Nature Outings

Therefore, rather than just walking to some destination and back for our Sabbath afternoon nature outings, let's take advantage of this opportunity to help prepare ourselves and others for our end-time wilderness experience.

Live and act wholly in reference to the coming of the Son of Man. (Early Writings 58.)

Note: although some 'wilderness survival' activities may not be 'Sabbath appropriate,' there are many that are. For example: Learn how different types of plants can be recognized by their leaf shapes and growth characteristics. Start with your local trees. When you are comfortable recognizing different plants, identify and sample wild edibles. Sampling them may also include building a fire, purifying some water, and doing some simple campfire cooking. You could also have sundown worship around the fire before you head back.

At some point in your outing be sure to have a 'What if we had to spend the night here and now?' discussion. Take inventory of the key survival equipment you have among your group. Talk about where and how would you make your 'camp,' what would you want to get done before dark, etc.

What do you have with you right now that could help you survive in the wilderness?

Plan Ahead

When a wise person sees danger ahead, he avoids it,
But a foolish person keeps going and gets into trouble.
(Proverbs 22:3 ICB-NCV.)

One of the first, and most important lessons learned in wilderness survival is to Plan Ahead. We find this same

lesson throughout the Bible, particularly in the Parable of the Ten Virgins, (Matthew 25:1-13).

Unfortunately, we tend to overlook that the girls in this parable had a job to do —to light the way, and help people get to the wedding. So let's ask a couple questions: What did the 'wise' girls do at the 'crisis' in the story? —They just refilled their lamps and they were ready to do their job. For them, there was no real 'crisis.' And how were they able to do this? —They had planned ahead and brought 'extra' oil.

On the other hand, what did the 'foolish' girls do at the 'crisis?' —They had to go buy more oil. But by the time they got back, it was too late, and they totally missed out.

Are we just 'planning' to go to the wedding, like the 'foolish' girls? Or, like the 'wise' girls, are we actually 'preparing,' not just ourselves, but preparing to be able to help others make it all the way through to the end? If we are scrambling for our own survival, how can we help anyone?

There is one more important point here that we need to note. The 'foolish' girls turning to their 'sisters' for help at the crisis shows that this parable is also about two contrasting attitudes: (1) Those who are willing to do 'extra' to be able to help others, as opposed to (2) Those who have a 'someone will take care of me' attitude.

So are we going to be 'Proactive' like the 'wise' virgins, and prepare ahead of time? Or are we just going to be 'Reactive,' and not worry about things until the 'crisis hits' and it's time to go like the 'foolish girls?'



Groups That Have Had to Spend the Night

Which brings us to our next point. I know of three groups who went on a simple Sabbath afternoon hike, but actually ended up spending the night. Two of these groups were hiking in some fairly rough country and it simply got late on them. So they wisely decided to wait until morning rather than trying to hike out in the dark and risk getting lost or someone getting seriously hurt. (Read about one group's experience in the January 2015 issue of the *Pacific Union Recorder* pages 12-13:

The third group simply got lost. On their way back, they got off on a trail that took them deeper into the woods instead of back to their vehicles. By the time they realized something was wrong, they were too confused and it was getting too dark to safely backtrack to figure out what they had done.

The interesting thing is, all three of these experiences happened within about a 60 mile / 100 km radius. And we can't help but think that if it has happened that many times in this small an area, it has surely happened in other parts of the country! And sure enough! When we mentioned this at a program we were doing in another state a while back, they said a group in their area had had a similar experience.

But more importantly, if it has happened this many times, *it can happen again!* So, we would be wise to give this some thought, and preparation.

Two Critical Mistakes

It is worth noting here that the people in these groups made two critical mistakes: (1) They weren't paying attention. The first two groups weren't keeping a close enough eye on the time, and the third group wasn't watching where they were going—which by the way, is statistically the main reason people get lost. And (2) they didn't bring essential equipment.

How many of us are making these
same two mistakes right now?

These people probably came away from the experience thinking, 'I never want to do that again!' But please note that it is possible to think this for two very different reasons. (1) To be thankful for an amazing learning experience, admit our mistakes, and determine to pay better attention and bring key equipment on future outings. (2) Resolving never to go on another nature outings—even though *they* were the ones who made the mistakes that caused their bad experience! This second response is essentially blaming God and His Creation for what happened—a tendency that goes all the

way back to Adam and Eve. So rather than staying away from nature because there is a possibility it could happen to us, let's learn from these mistakes.

Are We an 'Asset' or a 'Liability' to Our Group?

There was something else significant that happened to one of these groups that is also worth sharing here. But first, remember the quotation from *Great Controversy*, page 626 that we looked at earlier? It says that during our end-time wilderness experience we will, "associate together in companies." So when we 'flee to the wilderness' we are going to be in groups! Now, some of us might be tempted to think, 'Whew! I'm so glad I going to be in a group. Someone in the group will know what to do, and I'll be taken care of.' But, is this how God would have us respond?

Let's ask ourselves another question: Are we going to be an 'Asset' or a 'Liability,' a 'Blessing' or a 'Burden' on the group God connects us with? Which would God have us be?

The Christian is to be a benefit to others.
(*Testimonies for the Church Vol. 7*, page 170.)

So let me tell you the story. In the group that got lost there was a nine year old boy who had brought his 'emergency kit' on the hike. Among the things in his 'kit' he had some matches, and because he had matches, his group was able to have a fire that night! None of the other people in the group had brought anything, even the adults!

Now think just a moment about the difference between spending the night in the cold dark woods without a fire, and staying that same night in the same cold dark woods with a fire! —that difference is huge! And how hard is it to bring some matches, or a lighter? You see. That nine year old boy was an 'Asset,' a tremendous 'Blessing' to his group! So, I want to challenge *you* to be that 'nine year old boy' for *your* group.



Like many things in life, learning wilderness survival takes:

- Knowledge —such as knowing: which plants are edible, how to find your way, and wilderness hygiene
- Equipment —there are many things you can't do unless you have the equipment to do them with
- Skills —knowing how to do things efficiently

The Survival Priorities

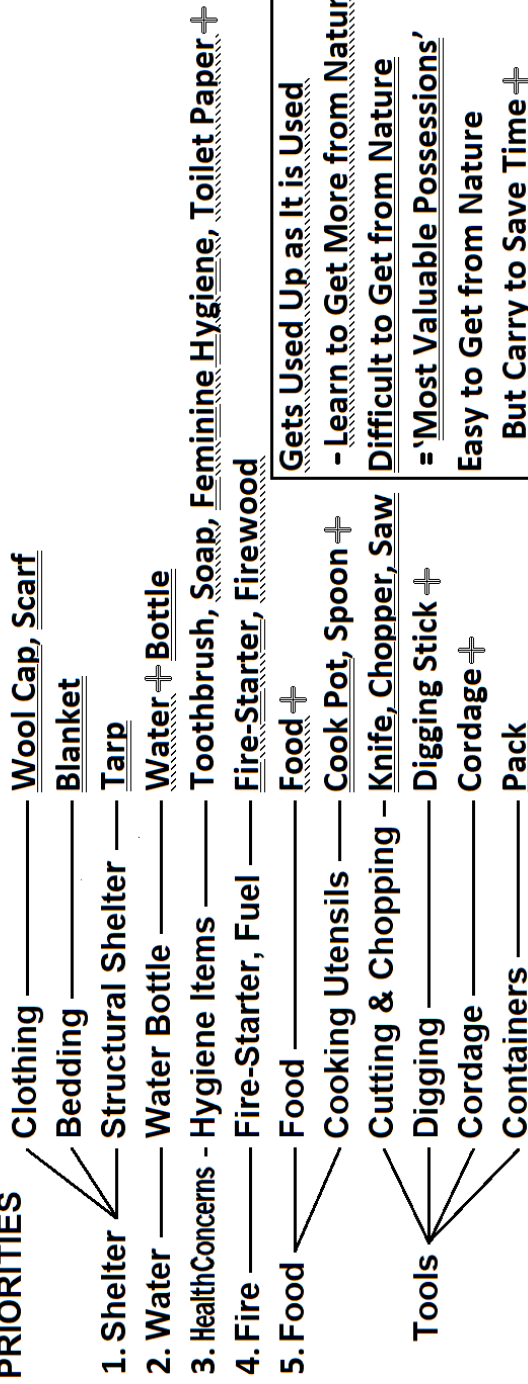
Note the chart on the next page. The 'Survival Priorities' are the things we need in order to stay alive, (not counting 'Air'). They are listed in order of importance. Shelter is first, because within hours we will need Shelter from something. Water is second, because we could make it into the next day without water. Food is last because we can go a couple weeks without Food, (we might not feel very good about it, but we'll live). Health Concerns, things like safety, sanitation and hygiene, is in the middle because it 'umbrellas' over all the other priorities —you *always* want to stay safe and healthy. Fire also 'umbrellas' over the other Priorities —you may need Fire in connection with Shelter for light and/or heat, Fire to boil Water to purify it, Fire to cook Food, Fire to make tools, etc.

Survival Priority Equipment are the actual equipment item categories that we need to provide the Survival Priorities. It is worth noting here that we have all these things in our Homes, (our 'homes' are our Survival Systems), but what we have 'at home' may not work best for wilderness use.

Now, we *can* get everything we need from Nature. Native people *have* 'lived off the land' for thousands of years. Some native groups had a concept they called the 'Sacred Hunt,' which is essentially Matthew 7:7 and Philippians 4:19 rolled together. As they prayed / 'asked,' and went out hunting / 'seeking,' the Creator would somehow bring them and what they needed together.

SURVIVAL PRIORITIES

PRIORITY EQUIPMENT – Packable Examples



One Way or the Other, You've Got to 'Do the Work' (B. Polm)

You need all of the Survival Priorities. So either you will have to 'work' to carry things in, or you will have to 'work' to gather and make what you need once you get to your wilderness camp. Some things are relatively easy to get from nature, others are easier to carry.

But keep in mind that getting everything from nature takes a lot of Time. This can be especially critical at the beginning of a situation. We probably would not have Time to find and gather materials, then process and craft everything we needed before it got dark. Therefore, we may wisely choose to carry an initial supply of certain items.

We *know* we are going into wilderness.
And we *know* we are going to need these items.
So why not bring them with us in the first place?

A Couple of Significant Sub-Categories

It is worth noting that there are a couple significant Sub-Categories among the items on this chart:

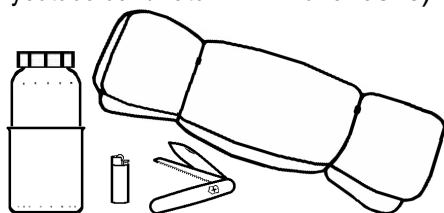
(1) Things that Get Used Up as We Use Them —as opposed to things that can be used over and over. These are things like: Water, Toilet Paper, Firewood, and Food. We should be sure to learn how to get more of these types of items from nature. For the most part they are relatively easy to get, but it may be wise to carry an initial supply to save time. Let's just not try to carry enough to last until Jesus comes!

(2) Things That Are Hard to Get from Nature. Such as: Clothing, Bedding, Water Bottle, Cook Pot, Steel Knife, and Pack. In a survival situation, these would be our 'Most Valuable Possessions' because they would be difficult if not impossible to replace. We should be sure to have these items in our Survival Kits. For the most part, these are also things that can be used over and over. So they need to be Durable and Sustainable —so that they *will last* until Jesus comes.

Also note that depending on the particular method used, some of these things, (especially Feminine Hygiene needs and Fire-Starters), can either be used over and over, or get used up as they are used. And, depending on the method, they may be relatively easy to get from nature, or difficult to get from nature. Choose Wisely.

At Least Carry the '4 Bs' (www.youtube.com/watch?v=zYAdToN9UKs)

- **Bottle**
- **Burn**
- **Blade**
- **Blanket**



'Bottle' –Ideally, this should be a wide-mouth *stainless steel or titanium* water bottle that you could boil water or even cook in. So this 'B' actually represents a Water Bottle / Cook Pot combination. Carrying a metal 'bottle cup' that the water bottle fits right into might be a good option here.

'Burn' –This 'B' represents some type of Fire-Starter such as a lighter, some matches, or a 'ferro-rod' —ideally, a long-lasting historic Flint & Steel kit.

'Blade' –Stands for some type of knife. If you are going to carry a pocket knife I would highly recommended one of the *Victorinox 'Swiss Army Knives'* with a saw.

'Blanket' –A light weight, preferably wool, blanket might be adequate for afternoon walks, (however, if you know you are going to spend the night, bring something heavier).



Match Coat

With just these four simple items we can: store and carry water to stay hydrated; make a fire to: purify more water, process and cook wild edibles, fire-harden tools have warmth, light, and a cheerful 'atmosphere;' make shavings to help start our fire and useful objects such as a flattened stick 'spatula' to cook and eat with, carve a digging stick, a walking stick, a blanket pin, and

cut shelter poles; make a cloak or 'match coat,' fashion an improvised stretcher, and bundle up for the night.

Studying Wilderness Survival teaches us:
How few items actually are essential,
And, how essential those few items actually are.
(Author Unknown)

Keep in mind that if I'm carrying the '4 Bs' and you aren't:

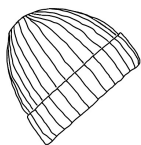
- I can give you some of my Water
- We can all share my Fire
- And I can loan you my Knife.
- But when it comes time to curl up for the night, each of us are going to want our own Blanket!

You see, being an 'Asset' to your group can only go so far. It can never take the place of personal responsibility.

Bringing basic equipment also gives us the tools to be able to develop our skills as opportunities present themselves along the trail.

'You can't play a violin,
unless you have a violin to play.'

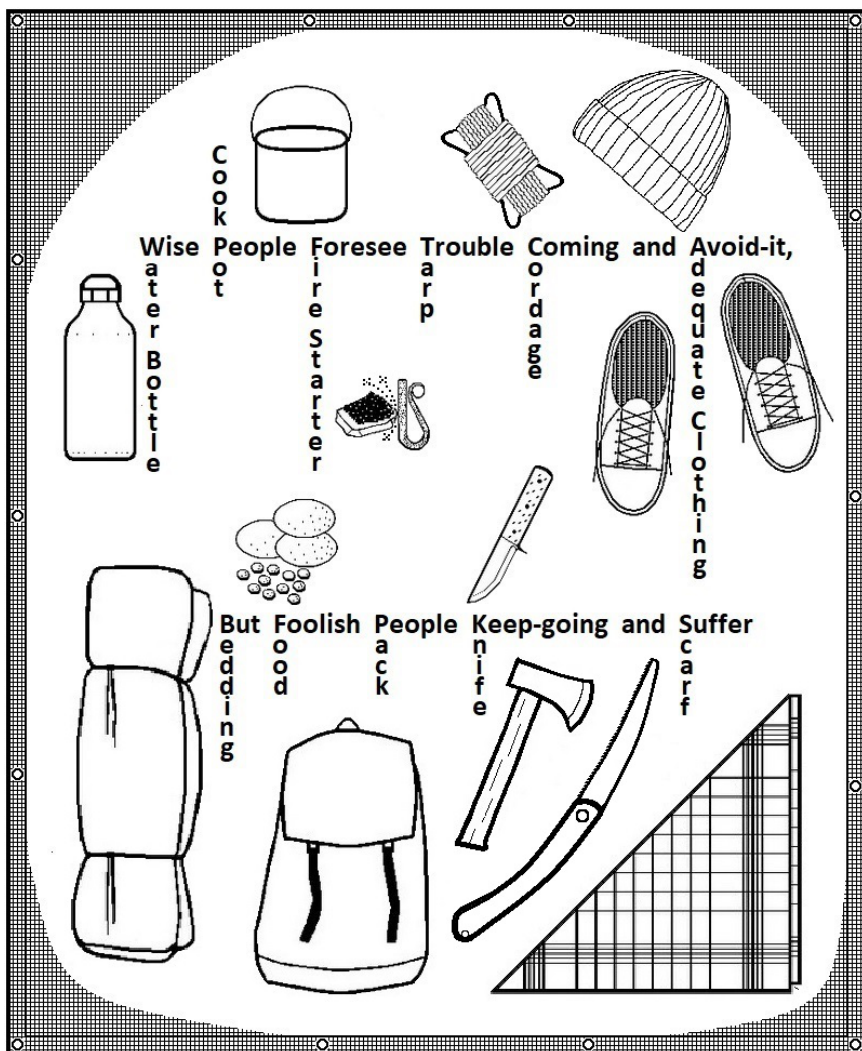
But, besides the '4 Bs,' I would actually want to bring a few more things. Such as: a Rain Poncho or Tarp, or at least a Large Plastic Bag; some Cordage; a Wool Cap and Scarf; a more substantial Knife, Saw, and Chopping Tool; some Food; a Headlamp, First-Aid Kit, and some Toilet Paper.



You lose over 70% of your body heat from your neck up, so a simple warm cap and a scarf will go a long way toward keeping you warm!

Which brings us to:

The Proverbs 22:3 Survival Kit



The items below are not 'physically essential,' in the same sense as those listed in the graphic above, (except the Scarf), but because of their usefulness you might also want to bring:

- A Bible Portion
- Whistle
- Map and Compass
- Headlamp / Flashlight
- First-Aid Kit
- Toilet Paper

Proverbs 22:3



1. & 3. Wise peo - ple for - see trou - ble com - ing and a - void it.
2. Water Bot - tle, Cook Pot, Fi - re Start - er, Tarp and Cord-age,



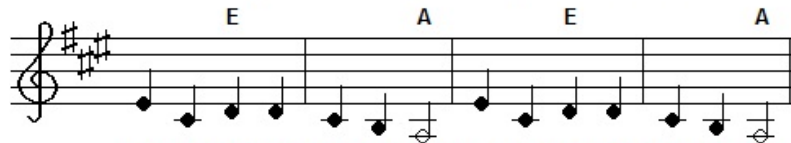
Wise peo - ple for - see trou - ble com - ing and a - void it.
Water Bot - tle, Cook Pot, Fi - re Start - er, Tarp and Cord-age,



B - ut fool - ish peo - ple keep go - ing and s - uf - fer.
A - de - qu - ate Cloth - ing, Bed - ding, Food, Pack, Knife, and Scarf.



B - ut fool - ish peo - ple keep go - ing and s - uf - fer.
A - de - qu - ate Cloth - ing, Bed - ding, Food, Pack, Knife, and Scarf.



Pro-verbstwen-ty - two verse three. Pro-verbstwen-ty - two verse three.
Al - ways keep them in your pack. Be sure to keep them in your pack. Because -

Be sure to
FIELD TEST ALL YOUR EQUIPMENT:

If you can't make it work in your
backyard on a sunny afternoon, you
won't be able to get it to work up on a
mountain, in the dark, when it is raining!

—ACTIVITIES—

Rather than just walking to some destination and back for your outing, at least:

- Have Worship: sing, pray, share a verse
- Have a 'What if we had to spend the night here and now discussion,' (see page 7). Take inventory of what you have with you that would help, (see '4 Bs' on page 14). Talk about how and where you would make your 'camp.'

Mini Scavenger Hunt

Based on the two quotations at the bottom of page 2 find:

- Something Beautiful
- Something Useful
- Something Edible

Caretaker Attitude

God gave Adam and Eve the job of taking care of the garden, (see Genesis 2:15). And as their children, we have the same task. Unfortunately the human race has not always followed God's plan, and we have pretty much trashed the planet. However, God still cares about His creation! And as part of a declaration that will be made in heaven just before Jesus comes, it is stated that, the "time" has come to "destroy those who destroy the earth," (see Revelation 11:16-18).

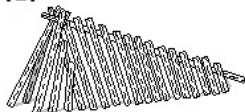
So it is important for us to have a 'caretaker attitude,' and think about how our activities will impact nature. So instead of cutting that 'perfectly' shaped little sapling growing off by itself for our project, look for a branch that needs to be pruned or thinned. By doing this, it is possible to get everything we need and still leave nature better off than we found it. Let's be 'Caretakers,' not a 'Careless Takers.'

Debris Hut Shelter

This 'hut' is more like a 'sleeping bag' than a shelter you can sit up and move around in. Start with a tripod frame, add a layer of 'Ribbing' sticks, then cover it with Debris, (leaves, pine needles, dried grass, moss, ferns, whatever is available).

The thicker the Debris, the warmer the shelter will be. Place sticks or bark over the debris so the wind won't blow it away. Finish with a 6 to 12 inch / 15 to 30 cm thick Debris Bed inside. If it is cold, fill the inside with debris and burrow into it.

(1)



(2)

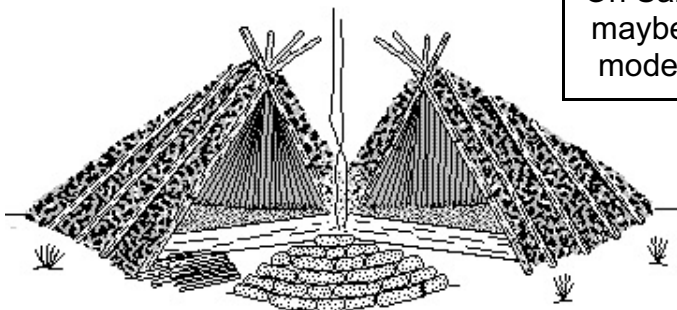


(3)



Larger group 'Wicki-up' shelters can be made using the same basic construction method. A Reflector Fire can be built in front for added heat.

On Sabbath outings maybe just make a model of a shelter



Blanket Mat

Bundles of long grasses, strips of fibrous bark, long leaves, or plant stalks can be tied together to make a blanket mat. If the bundles are at least 3-4 in / 7-10 cm diameter, the mat will actually be quite warm. These mats seem to work best with the bundles running in-line with your body, rather than cross-ways to it.

Make each cord about 3-4 times as long as the desired width of the finished mat. The number of tie cords depends on the length of the material, and the finished size of the mat. Place the middle of



Surgeon's Knot

the cords in a line, and wrap up the ends to keep them manageable. Lay a bundles of material evenly across the cords, tying them with Surgeon's Knots.

Water Purification

There are three main ways to purify water:

- Filters —the least reliable
- Chemicals —follow the directions on the bottle
- Boiling —the most reliable



It is just necessary to bring the water to a rolling boil, or 212°, to purify it, as the latest research has shown the 'bad bugs' are all incapacitated at 180°.

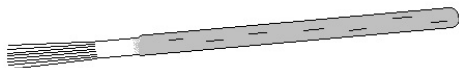
Keep in mind that the above methods only get rid of biological contaminants. If you suspect there are chemical contaminants, run the water through a charcoal filter—which can be made from a plastic water bottle with the bottom cut out of it.



charcoal filter

Twig Toothbrush

Smash one end of a willow twig with a couple of smooth rocks.



Soap

Many plants can be used for soap such as: Soap Wort, Yuccas, Mountain Lilac, Soaproot, Bracken Fern (rhizomes).

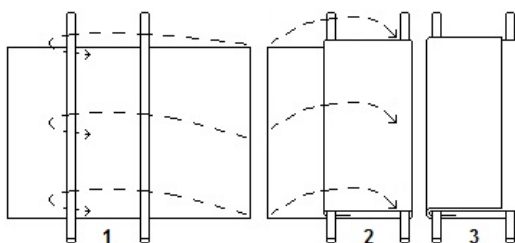
Toilet Paper Substitutes:

- Leaves: Look for large strong leaves, even dead leaves can work. Be sure to use several, as they may have a tendency to 'break through.' Be sure not to use poison ivy/oak, stinging nettles, or other skin irritating plants!
- Soft Moss
- Snow, (when it holds together).
- Smooth Rounded Stones (actually work quite well)

Choose a place outside the camp where you can go to relieve yourself. You must carry a pointed stick as a part of your equipment. When you go outside to squat, dig a hole with it. When you're done, cover up your excrement. The Lord your God moves around in your camp to protect you and hand your enemies over to you. So your camp must always be holy. This way, the Lord will never see anything offensive among you and turn away from you. (Deuteronomy 23:12-14 *GOD'S WORD*)

Blanket Stretcher

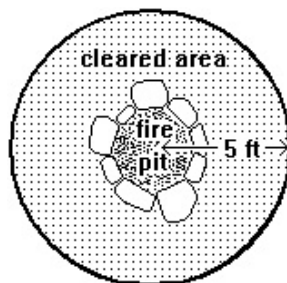
Lay two poles far enough apart for a person to lay in between to one side of the center the blanket. Fold the longest side of the blanket across the top of



both poles, and tuck at least 6 in / 15 cm of the edge under the farthest pole. Then fold the other side over on top of the stretcher. When folded this way, the texture of the blanket together with the weight of the person being carried will keep the stretcher from slipping apart.

Fire Safety

Clear an area down to mineral soil 5 ft / 1.5 m out from the center of the firepit in all directions. When finished, thoroughly douse the fire with water to be sure it is *out*. Always have water and a digging tool at hand with a fire.



Fire Theory

In order to burn, a fire needs:

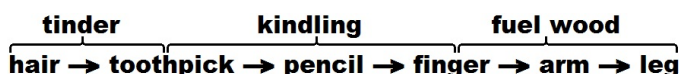
- Fuel
- Oxygen
- Heat —think: '**combustion temperature**'

‘Combustion Temperature’

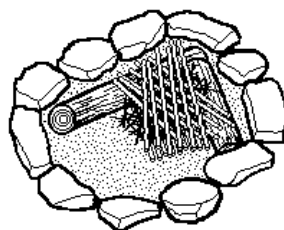
Hold a burning match up to a small log, (hold it to wood, not bark). It may char a bit, but it does not catch fire.

Next, cut a small chip off of the log at the same spot the match was held to. Strike another match and hold it up to the chip. The chip readily catches fire! What is the difference? It is the exact same wood!

The Heat from the match isn’t enough to bring the log up to ‘Combustion Temperature,’ but it *is* enough to bring a wood chip to ‘Combustion Temperature.’ In order for any Fuel to burn, it must be heated to ‘Combustion Temperature.’



As wood chips ignite and burn, they give off more Heat. This additional Heat can be used to bring pieces of ‘Kindling’ up to ‘Combustion Temperature.’ Then the burning kindling will be able to heat up smaller pieces of ‘Fuel Wood.’



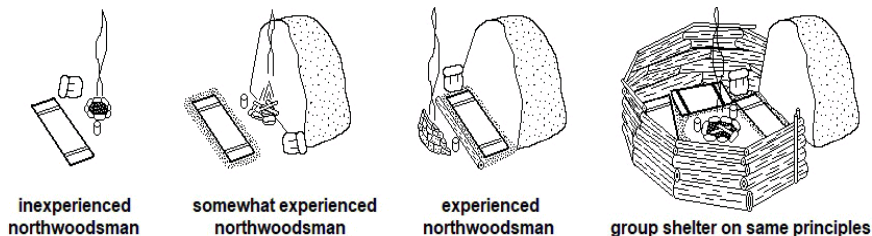
Fire burns ‘up,’ so light the fire as low to the ground as possible. If the ground is wet, make a layer of small sticks to start the fire on.

Work to establish a ‘Central Heat Core’ that will provide ‘Heat’ to keep the rest of the fire at ‘Combustion Temperature’ so it will continue burning. This ‘Heat Core’ is usually a bed of coals. So lay the kindling and fuel wood on the fire in such a way that it will build up, and *maintain* this central bed of coals.

Maximizing the Efficiency of Your Fire

Heat rises, so a fire creates a column of rising hot air, which is replaced by cold air rushing in from the surrounding area. This results in the typical, ‘baking on one side, freezing on the other,’ while standing around the bonfire. On the other hand, a small fire, without this huge updraft, can warm up the area around it much more efficiently. Smaller fires also use less firewood!

Even more efficient is to find, or create, some type of enclosure to build your fire in. Even without a roof, a 'bubble' of warm air will be held inside making it considerably warmer.

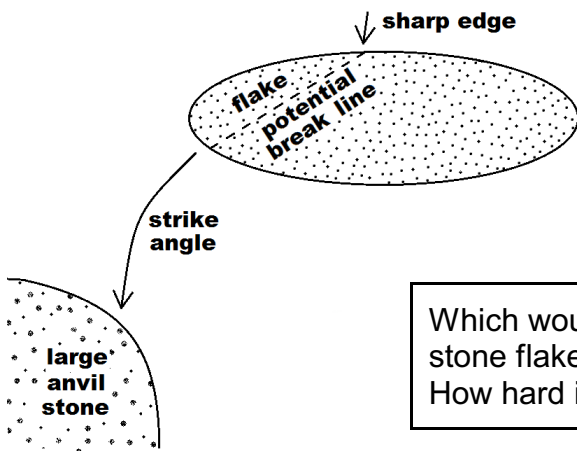


You will lose more of your body heat to the cold ground than you will to the cold air. So even with a fire you can be cold. Anything that can provide insulation between you and the cold ground will go a long way toward keeping you warm. If at all possible, make a 'Debris Bed.'

Divide the number of 'night time hours' by the number of people to set up 'Fire Watches.' Each person takes a 'watch.' Their responsibility is twofold, (1) Keep the fire going, and (2) Watch for sparks that might land on those who are sleeping.

Making a Simple Stone Knife

Use the hardest most finely grained rock you can find. Hit a 'fist' size or larger stone against an 'anvil stone' to break off a flake with a sharp edge as shown in the drawing.



Which would you rather use: a stone flake, or a steel knife?
How hard is it to carry a knife?

Wild Edible Plants

Invest in some books on wild edibles in your area. Those listed here are called the 'Big Four,' because all the plants in these families are edible, they grow in many areas, and you can get something from them most times of year.

—Don't Eat Anything You Aren't 100% Sure Is Edible—

1. **Grasses** (*Graminae*)

- Identifying Characteristics: bamboo-like nodes along the stems, long, straight, pointed, blade-like leaves with *no mid-vein*
- Edible Parts: young leaves and shoots, 'knots,' root stems and tubers, seeds
- Other Uses: bedding, thatching, tinder bundles
- Cautions: 'ergot,' a black fungus that can grow on grass seeds, is poisonous



2. **Cattails** (*Typha*)

- Identifying Characteristics: long straight leaves, sausage-like seed head, typically grows in water
- Edible Parts: young shoots, young 'flower parts,' pollen, plant base 'hearts,' young and 1st year root stems
- Other Uses: bedding, thatching, basketry
- Cautions: none



3. **Pines** (*Pinus*)

- Identifying Characteristics: 'sheath' wrapping around base of needles
- Edible Parts: young needles, pine needle tea, inner bark, pine nuts
- Other Uses: bedding and thatching (old needles), shelter poles, good wood for fire-starting, pitch glue
- Cautions: (not all 'evergreens' are pines, look for the 'sheath' wrapping at the base of the needles)



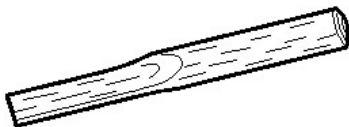
4. Oaks (*Quercus*)

- Identifying Characteristics: leaf shape, acorns with 'caps'
- Edible Parts: acorns (must be 'leached'), pollen, inner bark
- Other Uses: hard wood for tools, long-burning firewood
- Cautions: none



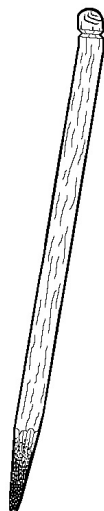
Simple Eating 'Utensils'

Cutting and peeling a couple of twigs for a pair of chopsticks might be the simplest utensil to make. But another easy utensil is a 'flattened stick spatula.'



Digging Stick

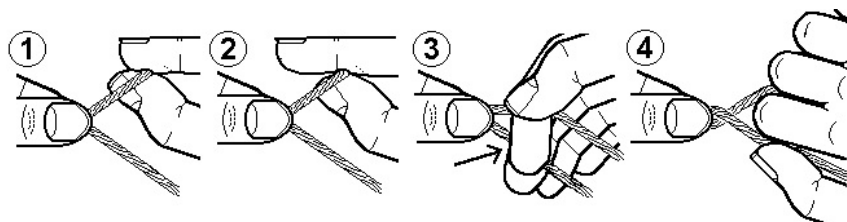
A Digging Stick is your primitive 'multi-tool.' Make one from a straight strong stick about the length of your hand and forearm. Chop and carve a blunt point on the thinner 'sky end.' When the wood is dry fire-harden the point with a 'slow roast.' Let this end get 'dirty.' Use it for digging, poking the fire, etc. Use the thicker 'earth end' as a mallet. Keep this end 'clean' for moving your pot in & out of the fire. Carve a notch near this end for the cook pot 'bail' to fit into. Note: Use it to dig a hole to go to the bathroom in, but because it is so useful for so many things don't risk contaminating it by using it to cover up!



Cordage

Cordage can be made from many natural fibers which can be found in the inner bark of various plants and trees, and in the leaves of yucca and agave.

By twisting strands of fibers one direction, then wrapping the strands together in the opposite direction, the fibers are 'locked' together to make a cord.



Why People Get Lost

There are two main reasons people get lost:

- (1) Not paying attention to where they're going
- (2) Not trusting things that can give them direction

It is worth noting here that people are lost spiritually for these exact same two reasons. Either they are not paying attention to where they're going spiritually, or they don't trust what God tells us about which way to go in life.

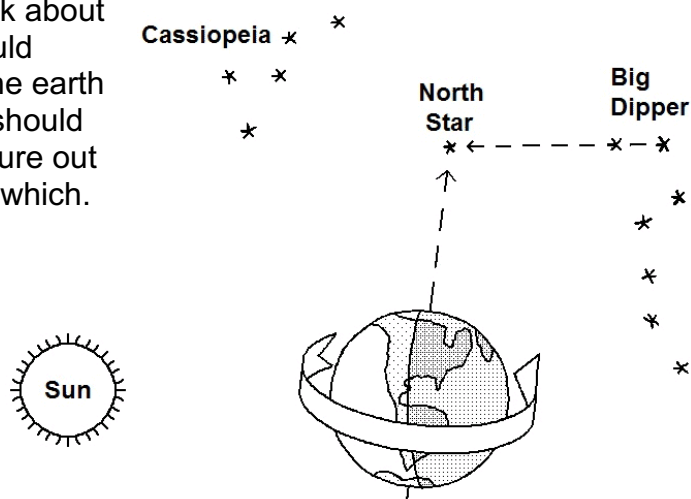
Directional Awareness

Practice 'Directional Awareness.' Always keeping track of:

- Where you are
- How you got there
- Which way you are going

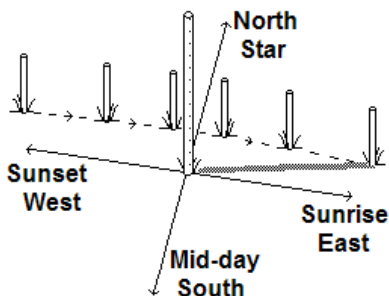
All Directions are Based on the Rotation of the Earth

If you think about what you would observe as the earth rotates, you should be able to figure out which way is which.



‘Shadow Stick’

Set up a ‘Shadow Stick’ by marking the tip of the shadow of a straight stick stuck in the ground. Wait for the earth to turn a bit and mark the shadow again. A line between these markers should roughly be an East—West line.



Draw a Map

Determine the directions, and draw a map of where you have come so far on your outing. Before you drew the items on your map, where were they? —in your head. And what are the various items on your map? —Landmarks.

Mental Maps, and Landmarks are the main two methods humans use to find their way. Some people are better at one than the other. Ideally use both!

If You Do Get Lost, S.T.O.P

Stay —resist the urge to panic and run

Think —your brain is your best survival tool

Observe —what is around you that can help you

Plan —make a plan based on the Survival **P**riorities

‘P’ also stands for **P**ray —if you haven’t already