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Practical Field Guide Printables

One-page branded field references drawn from the illustration plates in the book, with key points taken from the chapter text.

From The Practical Field Guide

27 ONE-PAGE GUIDES · US LETTER

FIELD LIBRARY

Contents

One-page printables from The Practical Field Guide

NO.	TITLE	DESCRIPTION
01	Water Treatment Methods	How to treat biologically contaminated freshwater — and what boiling, filters, and chemicals cannot remove.
02	Filter Maintenance & Backflushing	How to pre-filter, backflush, protect a filter from freezing, and practice with it before an emergency.
03	Emergency Water Storage	Keep treated and untreated water apart, use clean food-grade containers, and rotate emergency stores.
04	Fire Lay Comparison	Match tipi, log-cabin, or lean-to lays to the job, and put every fire completely out.
05	Building a Fire	Gather tinder, kindling, and fuel first, build the fire in stages, and extinguish every coal.
06	Common Tinder Materials	Natural and prepared tinder, plus the habit of gathering fuel before you strike a match.
08	A-Frame Tarp Shelter	Pitch an A-frame tarp with a taut ridgeline and snug corners, sited so water runs away from you.
09	Lean-To Shelter	When a lean-to makes sense, and how to site and tension a tarp so it stays stable.
11	Diamond Fly Shelter	A small, efficient tarp setup from the book's shelter comparison, with the same attention to a tight pitch and a dry site.
13	Bowline	The book's fixed-loop knot for attaching ridgelines, securing gear, and anchoring rope.
14	Taut-Line Hitch	An adjustable hitch for tarp and tent guy lines, used to keep corners snug as conditions change.
15	Trucker's Hitch	Use mechanical advantage to tension a ridgeline so a tarp sheds water instead of sagging.
16	Square Knot	A light-duty knot for joining two ropes of similar size — not presented as a knot for every load.
17	Tourniquet Placement	When a commercial tourniquet is needed, where to place it, and what not to do until help arrives.
18	Pressure Bandage	Apply direct pressure, add dressings without removing the first, and call for help when bleeding is severe.
20	CPR & AED Placement	Scene safety, calling for help, hands-only CPR for untrained rescuers, and following an AED's prompts.
21	Compass Parts	The parts of a baseplate compass, and how to keep metal and electronics from pulling the needle off.
22	Taking a Bearing	Orient yourself, take a map bearing, and travel toward a landmark instead of staring at the compass.
23	Basic Map Symbols	Use the legend, scale, and contour lines, and match the map to landmarks on the ground.
24	Ground-to-Air Signals	X, V, Y, and N ground signals, made large and contrasting, plus other ways to be seen from the air.
25	Whistle Signals	Three whistle blasts (and three flashes, or Morse SOS) as recognized distress signals.
26	Emergency Radio Call Format	Listen first, then give location, situation, number of people, and the help you need — briefly and clearly.
27	Go-Bag Layout	Pack a carryable bag for the first 24–72 hours, keep it where the household can reach it, and inspect it twice a year.
28	Layering System	Add or remove layers before you overheat or chill, stay out of the wind, and put rain gear on early.
29	Sleeping System	Use a pad under the bag, dry clothing, and a weather margin — the bag only holds the heat you produce.
30	Equipment Maintenance	Before- and after-trip checks for lights, knives, filters, batteries, cordage, and repair kits.
BONUS	Fire Starting Method	Lighters, waterproof matches, and a ferro rod, used with prepared tinder after the fire lay is ready.

PLATES NOT INCLUDED

07	(no plate)	No plate 7 exists in the Drive art folder or the book's Section 12 list (the list jumps from 6 to 8).
10	Emergency Debris Shelter	The plate shows a debris-hut build the Emergency Shelters chapter does not describe.
12	Wind-Resistant Teepee Shelter	A teepee shelter is not in the chapter text or the Shelter Setup Comparison chart.
19	Recovery Position	Only a short mention in CPR & AED Basics — not enough for 4–7 points without inventing steps.

FIELD GUIDE · NO. 01

Water Treatment Methods

Make questionable water safer to drink — and know what treatment cannot fix.



FROM THE BOOK

1. Clear water is not necessarily safe. Bacteria, viruses, and parasites cannot be seen, so unless you know exactly where the water came from and how it has been protected, treat it before you drink.
2. Start with the cleanest source you can find. Let sediment settle, or pour the water through a clean cloth or coffee filter first. That step alone does not make the water safe, but it helps boiling, filters, and chemical treatment work better.
3. Boiling is one of the most dependable ways to destroy bacteria, viruses, and parasites in untreated freshwater. A vigorous rolling boil is the important step. At elevations above about 6,500 feet (2,000 meters), where water boils at a lower temperature, let it boil longer for an added margin of safety. Then cool it and store it in a clean container.
4. A backpacking filter can remove many bacteria and parasites from natural freshwater, but most standard filters are not designed to remove viruses or dissolved chemicals. Follow the manufacturer's instructions, and clean or backflush the filter as recommended.
5. Chemical disinfection (purification tablets or unscented household bleach) inactivates many disease-causing organisms, but it needs time to work — especially in very cold or cloudy water. Use unscented bleach only, and follow the product label or the dosage chart in the book rather than memorizing a single number. Iodine should not be used by anyone with a thyroid condition or iodine allergy, by pregnant women, or as a long-term method.
6. Boiling, filters, and chemical treatment address biological contamination. They do not remove gasoline, pesticides, heavy metals, salt, or seawater. If you suspect chemical contamination, find another source whenever you can.

PRACTICE IT

Before you need it, practice treating a bottle of water with the method you actually carry — boiling, a filter, or tablets — so the steps are familiar. Keep untreated and treated water in separate containers.

FIELD GUIDE · NO. 02

Filter Maintenance & Backflushing

A filter lasts longer — and works more reliably — when it is cleaned, stored, and practiced with before you need it.



FROM THE BOOK

1. Collect the clearest water available. Mud, algae, and debris clog a filter much faster than relatively clear water.
2. If the water is cloudy, pre-filter it through a clean cloth, bandana, or coffee filter to remove larger particles before they reach your primary filter.
3. Reduced water flow is a common sign that a filter needs attention. Many modern filters can be cleaned by backflushing — forcing clean water through the filter in the opposite direction to remove trapped sediment. Follow the procedure recommended for your model.
4. Never allow a wet filter to freeze. Expanding ice can damage internal filter elements even if the housing looks unharmed. In freezing weather, many hikers keep the filter in a jacket pocket during the day or inside a sleeping bag at night.
5. After use, clean the filter according to the manufacturer's instructions, store it clean and dry if recommended, and inspect hoses, seals, O-rings, and connections before each outing. Replace worn or damaged parts on the manufacturer's schedule.
6. A simple filter you have practiced with and maintained is far more useful than an unopened one. Practice assembling and using your filter before you rely on it in an emergency.

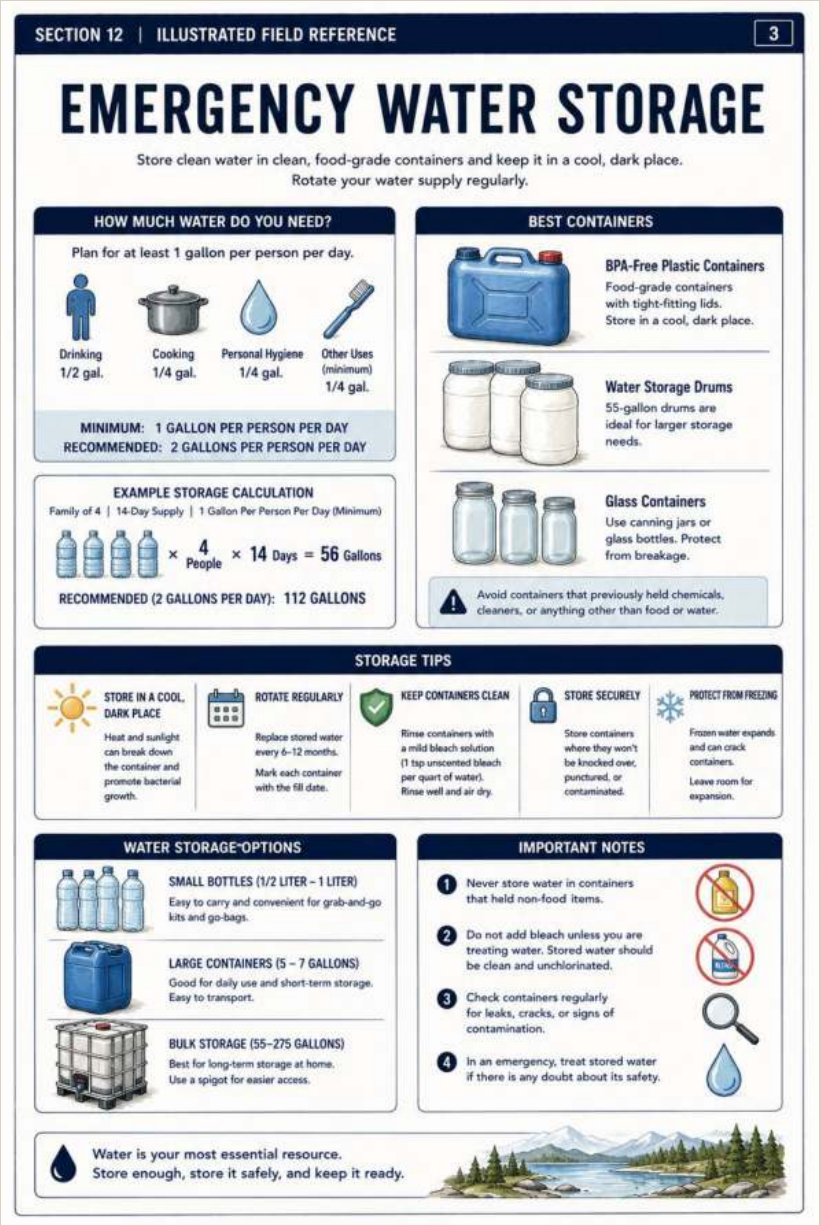
PRACTICE IT

At home or on a camping trip, assemble your filter, treat a bottle of clear water, and practice the backflush or cleaning method in the instructions so the steps are familiar.

FIELD GUIDE · NO. 03

Emergency Water Storage

Treated water stays safe only if the container — and the habits around it — stay clean.



FROM THE BOOK

1. Finding and treating water is only part of the job. Many cases of unsafe drinking water begin with poor storage, not poor treatment.
2. Start with clean containers. Bottles previously used for other beverages should be washed thoroughly. Containers made for drinking water are generally the best choice.
3. Keep untreated and treated water in separate, clearly marked containers. Mixing the two, even accidentally, undoes the work you have already done.
4. When filling a container, avoid touching the inside of the cap or opening with dirty hands. Wipe your hands or use sanitizer before handling clean containers when you can.
5. For home emergency storage, use food-grade or purpose-made containers, cleaned thoroughly, and store them in a cool, dry place away from direct sunlight. A basement, interior closet, or climate-controlled room is usually better than a garage that gets very hot or freezes.
6. Inspect stored water occasionally for leaks, damage, or signs of contamination, and rotate supplies on a regular schedule. Replace water used from a go-bag or vehicle kit as soon as you return home. In freezing weather, keep bottles from sitting exposed for long periods; in hot weather, keep water out of direct sun.

PRACTICE IT

Label two containers “treated” and “untreated,” inspect your emergency water stores, and put a reminder on your calendar to rotate and check them on a regular schedule.

FIELD GUIDE · NO. 04

Fire Lay Comparison

Different fire lays do different jobs. Choose the one that fits the work, the weather, and the wood you have.



FROM THE BOOK

1. There is no single correct way to arrange firewood. A fire lay is simply how the wood is stacked before you light it. Match the lay to the job — quick heat, cooking, or a longer, steadier burn — rather than following one rule.
2. Prepare the site first. Stay away from low-hanging branches, dry grass, tents, and anything that could ignite. Use an established fire ring when you can. If a new fire is permitted, choose bare soil or another nonflammable surface and clear leaves, pine needles, and other combustibles for several feet around the area.
3. Gather more tinder, kindling, and fuel than you think you will need before you strike a match. Lighting the fire should be the last step, not the first.
4. A tipi (teepee) lay leans sticks into a cone with room for air through the center. Tinder goes underneath. It starts quickly and produces strong heat, though it can burn through fuel faster and may need more tending.
5. A log-cabin lay stacks wood in alternating layers around the tinder to form a square. It burns more evenly, often needs less rearranging, and is a practical choice for cooking or a longer fire. A lean-to lay uses a larger stick as both support and a windbreak, which helps in breeze or slightly damp conditions.
6. Fire needs heat, fuel, and air. Packing wood too tightly can starve the flame; spreading it too far lets heat escape. A modest, well-built fire is usually more useful than a large one. Never leave a fire unattended. Keep water or a shovel nearby. When you leave, drown the coals, stir the ashes, and feel them with the back of your hand — if they are still warm, the fire is not out. Build fires only where they are permitted.

PRACTICE IT

On a day when fires are allowed, build a small tipi or log-cabin fire in a safe, established ring. Practice putting it completely out: water, stir, and check that the ashes are cool to the touch.

FIELD GUIDE · NO. 05

Building a Fire

A reliable fire is built in stages — and put out completely when you are finished.



FROM THE BOOK

1. Prepare first. Gather tinder, kindling, and main fuel and keep them within reach before you light anything. Lighting the fire should be the last step, not the first.
2. Think in three layers: tinder that catches easily, kindling of small twigs that burn hotter and longer, then larger fuel for lasting heat. Skipping a stage almost always leads to frustration.
3. Choose dry wood. Dead branches still attached to standing trees are often drier than wood on the damp forest floor. Green wood is hard to burn efficiently and makes more smoke and less useful heat.
4. Place tinder where your ignition source can reach it and light it in one or two places. Give kindling time to catch before adding larger wood. Resist constantly rearranging the fire; small adjustments are sometimes needed, but continual disturbance usually works against you.
5. Wind and rain change the job. Protect the fire from the strongest gusts, and look for dry wood under evergreens, in standing dead branches, or by splitting a log to expose dry wood inside. Prepared tinder such as commercial starters or cotton balls with petroleum jelly helps when natural materials are damp.
6. Add fuel gradually. A modest fire with a healthy bed of coals is usually more useful than a large blaze. Never leave a fire unattended. Keep water or a shovel nearby. When you leave, drown the coals, stir the ashes, and feel them with the back of your hand — if they are still warm, the fire is not out. Build fires only where they are permitted.

PRACTICE IT

On a day when fires are allowed, gather a full set of tinder, kindling, and fuel first, then build a small fire in an established ring and practice putting it completely out.

FIELD GUIDE · NO. 06

Common Tinder Materials

Good tinder ignites easily and burns long enough to light your kindling.



FROM THE BOOK

1. Tinder is the first layer of a fire: it must catch a flame easily and burn long enough to ignite the kindling above it.
2. Natural tinder includes dry grass, pine needles, cedar bark, birch bark, fine twigs, dry leaves, cattail fluff, and feather sticks made from dry wood.
3. Prepared tinder is worth carrying: commercial fire starters, cotton balls coated with petroleum jelly, dryer lint only if it is free of synthetic fibers, wax-coated tinder, and fatwood.
4. Dry material matters. Wood and tinder taken from damp ground are harder to light. A few ounces of prepared tinder take little space and can save time when natural materials are wet.
5. Before you strike a match, gather enough tinder, plenty of kindling, and larger firewood, build your fire lay, and keep additional fuel within reach.
6. Carry more than one way to start a fire. A disposable lighter is simple but can fail or run out of fuel. Waterproof matches are an excellent backup, and a ferrocerium rod continues to work after it has gotten wet, once it is dried off.

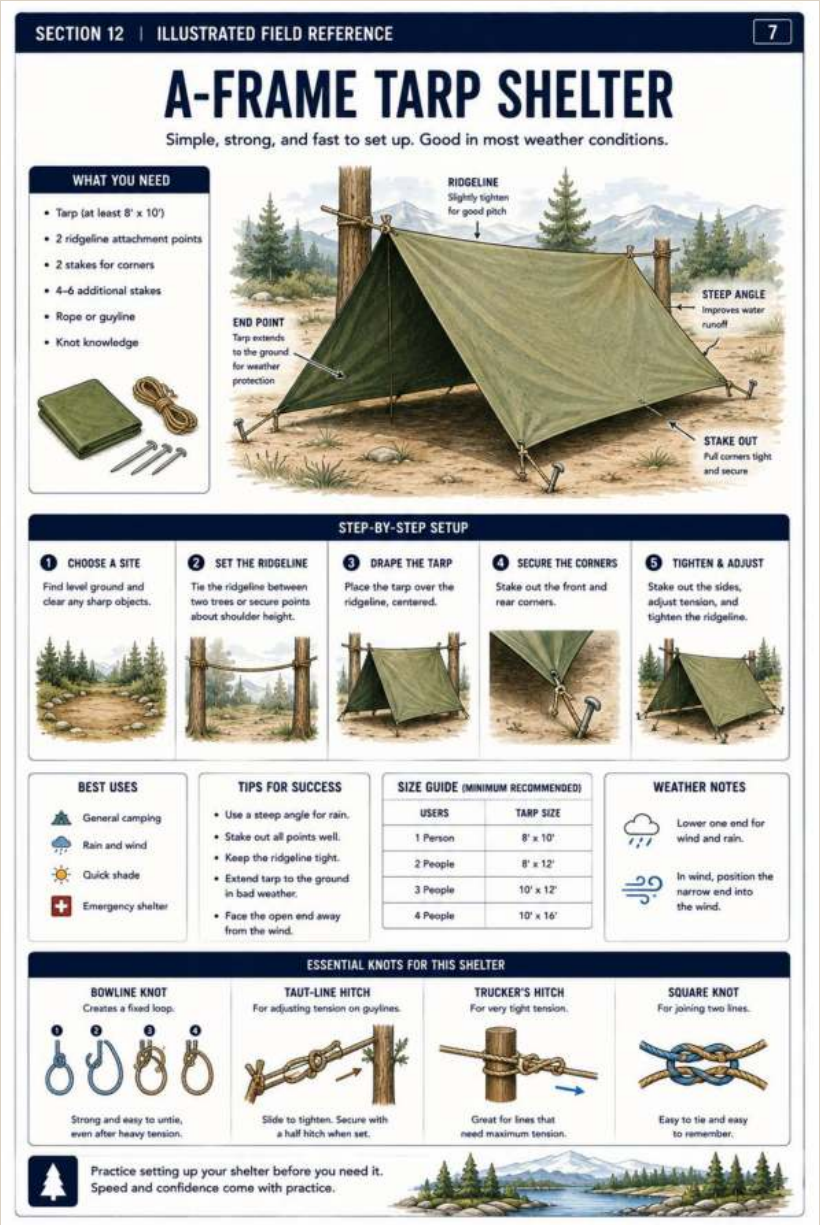
PRACTICE IT

Pack a small tin of prepared tinder you actually use, then practice lighting a cotton ball or commercial starter and transferring the flame to kindling in a safe, permitted fire ring.

FIELD GUIDE · NO. 08

A-Frame Tarp Shelter

The simplest, most useful tarp pitch: a tight ridgeline, even drape, and corners held snug.



FROM THE BOOK

1. The A-frame is the simplest and most useful tarp shelter. Stretch a ridgeline tightly between two trees or other sturdy anchors, drape the tarp evenly over it, and secure the corners to the ground.
2. Pitched properly, it sheds rain well, provides excellent protection from the wind, and creates enough interior space for one or two people, depending on tarp size. The book's comparison lists it as a good all-around shelter for rain, wind, and overnight camping; it does require two anchor points or trekking poles.
3. Keep the ridgeline taut. A loose line sags, collects rain, and puts extra strain on the fabric and tie-outs. A tight ridgeline sheds water better and is generally quieter on windy nights.
4. Pull each corner snug before you secure it. Stakes work when the ground allows; rocks, logs, or other natural anchors work when soil is rocky or frozen.
5. Before you tie a knot, think about the weather. Position the tarp so water runs away from your shelter, not toward it. If strong winds are expected, place the lower side of the tarp facing into the wind so it is less likely to act like a sail.
6. Avoid setting up where hillside runoff will pass through your sleeping area. A tarp pitched too high may let wind and rain blow underneath; one pitched too low may trap condensation. Small height adjustments often matter more than rebuilding the whole shelter.

PRACTICE IT

On a calm day, pitch an A-frame in the yard or at a campground. Practice getting the ridgeline tight and the corners snug, then walk around it and imagine how rain would run.

FIELD GUIDE · NO. 09

Lean-To Shelter

A fast, open-front pitch for mild weather — with less protection from wind and blowing rain.



FROM THE BOOK

1. A lean-to is a quick tarp or shelter setup with an open front. The book's shelter comparison lists it as fast to set up, with good ventilation and visibility, and useful for mild weather, cooking areas, and quick shelter.
2. The tradeoff is real: a lean-to offers less protection from wind and blowing rain than an A-frame. Choose it when conditions match, not as a default in a storm.
3. Before you pitch, think about the weather. If strong winds are expected, place the lower side of the tarp facing into the wind to reduce the fabric that can act like a sail.
4. Keep the ridgeline tight and the corners snug so the tarp does not sag or flap. Use stakes when the ground allows, or rocks and logs when it does not.
5. In warm weather, raising one side of a tarp can create an open shelter with plenty of airflow and shade. If heavy rain arrives, lowering the tarp closer to the ground improves protection from wind-driven rain, at the cost of some headroom.
6. The best setup is the one that matches the conditions in front of you and can be built before weather gets worse. Practice a few pitches before you need them.

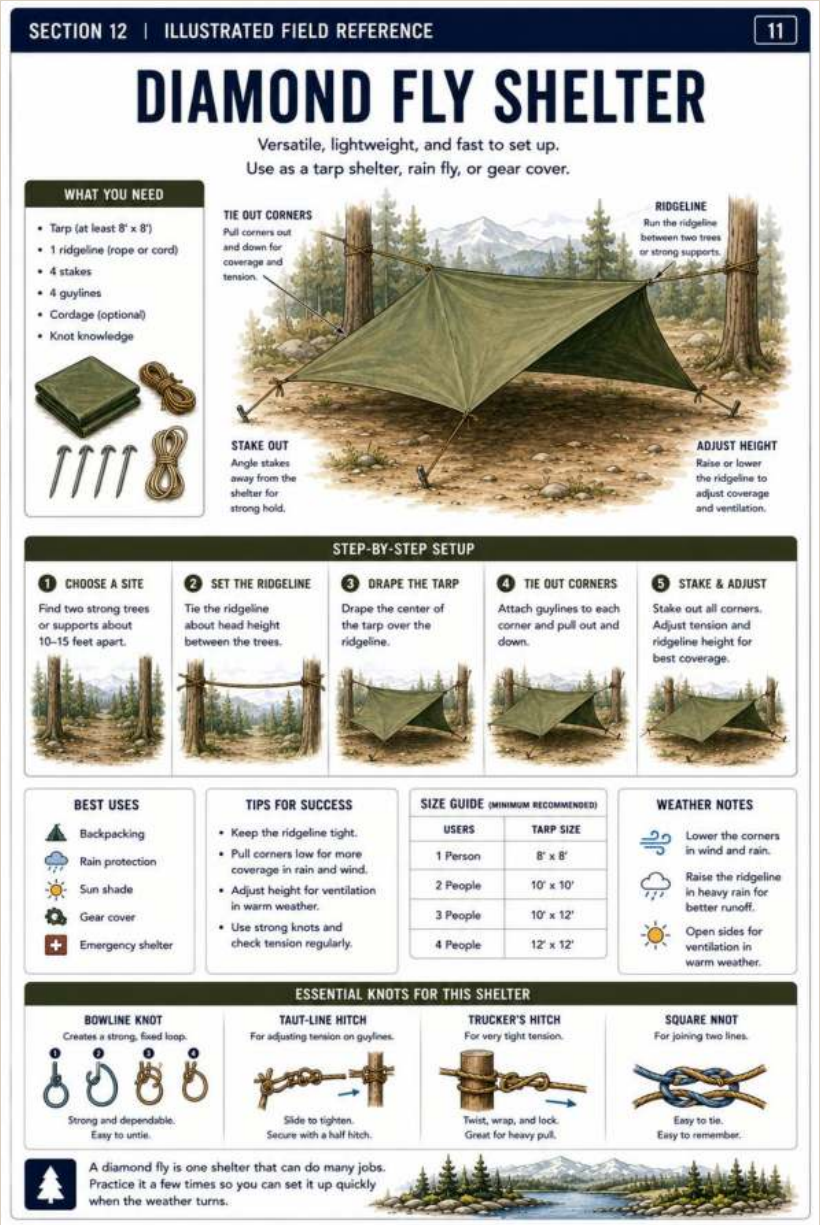
PRACTICE IT

Pitch a lean-to or a one-side-raised tarp, then stand at the open front and check how wind would enter. Adjust the low side and ridgeline tension until the shelter feels stable.

FIELD GUIDE · NO. 11

Diamond Fly Shelter

A compact, low-cordage pitch that sheds rain well, with less interior space than an A-frame.



FROM THE BOOK

1. The book's shelter comparison describes the diamond fly as a lightweight, one-person setup that uses minimal space and cordage and sheds rain well.
2. The main consideration is room: it has less interior space than an A-frame. It is a practical choice when you want a small, efficient shelter rather than a roomy camp.
3. As with any tarp, keep the ridgeline or attachment lines tight. A sagging panel collects rain and strains the fabric and tie-outs.
4. Secure the corners snugly. Stakes, rocks, or logs all work if they keep the shelter stable as conditions change.
5. Site matters as much as the pitch. Avoid low ground where runoff will travel through your sleeping area, and position the tarp so water runs away from you.
6. There isn't one perfect arrangement. The best shelter is the one that matches the weather and can be built before conditions deteriorate. Practice the setup on a calm day.

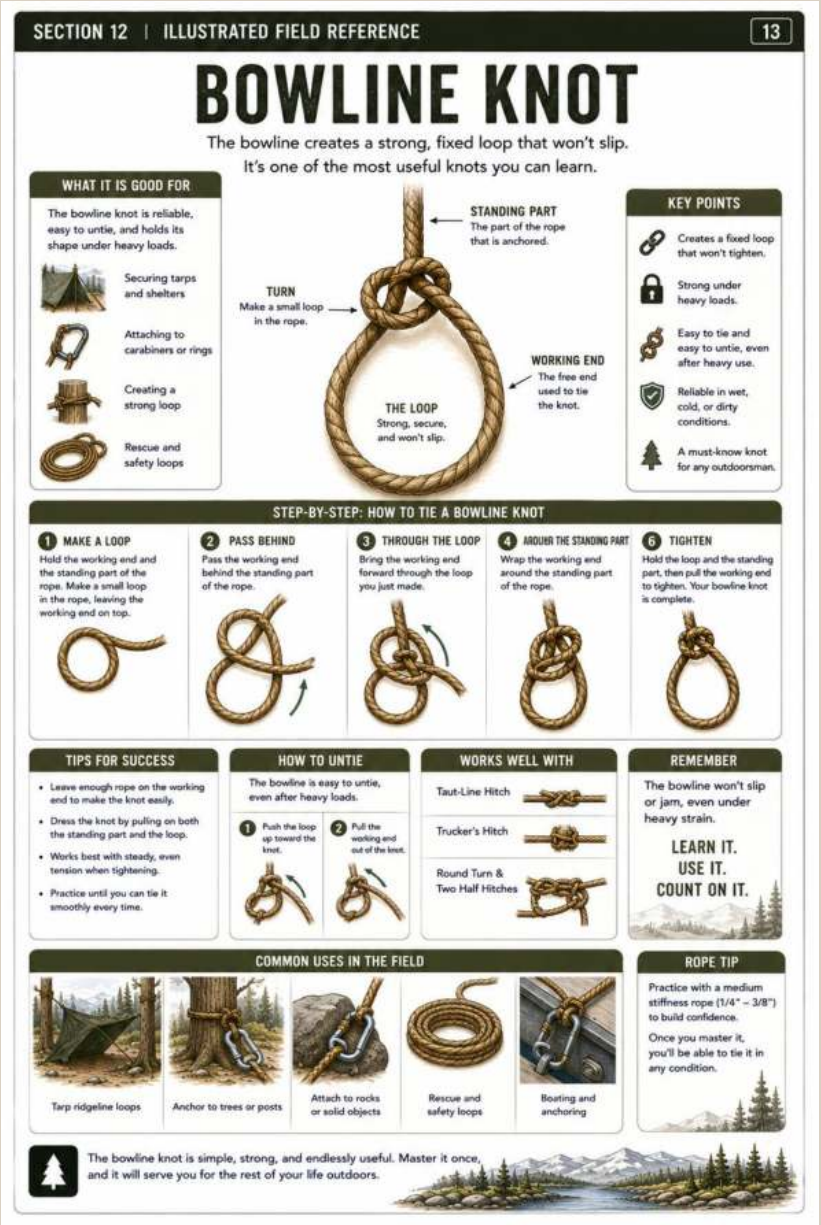
PRACTICE IT

Pitch a diamond fly (or the closest compact tarp setup you use) and confirm that water would run off, not pool, and that you still have enough room to lie down.

FIELD GUIDE · NO. 13

Bowline

A fixed loop for ridgelines, gear, and anchors — practiced until your hands remember it.



FROM THE BOOK

1. The bowline creates a fixed loop for attaching ridgelines, securing gear, and anchoring rope. It is one of a handful of knots the book recommends for most shelter-building tasks in the field.
2. A tight ridgeline between two sturdy anchors is the foundation of a simple A-frame tarp shelter. A dependable fixed loop is often how that line gets attached.
3. Learning a few knots well is more useful than memorizing many you cannot tie under stress.
4. Practice these knots before you need them. They become much easier after a little repetition, and they are far easier to learn on a calm afternoon than in a storm or fading light.

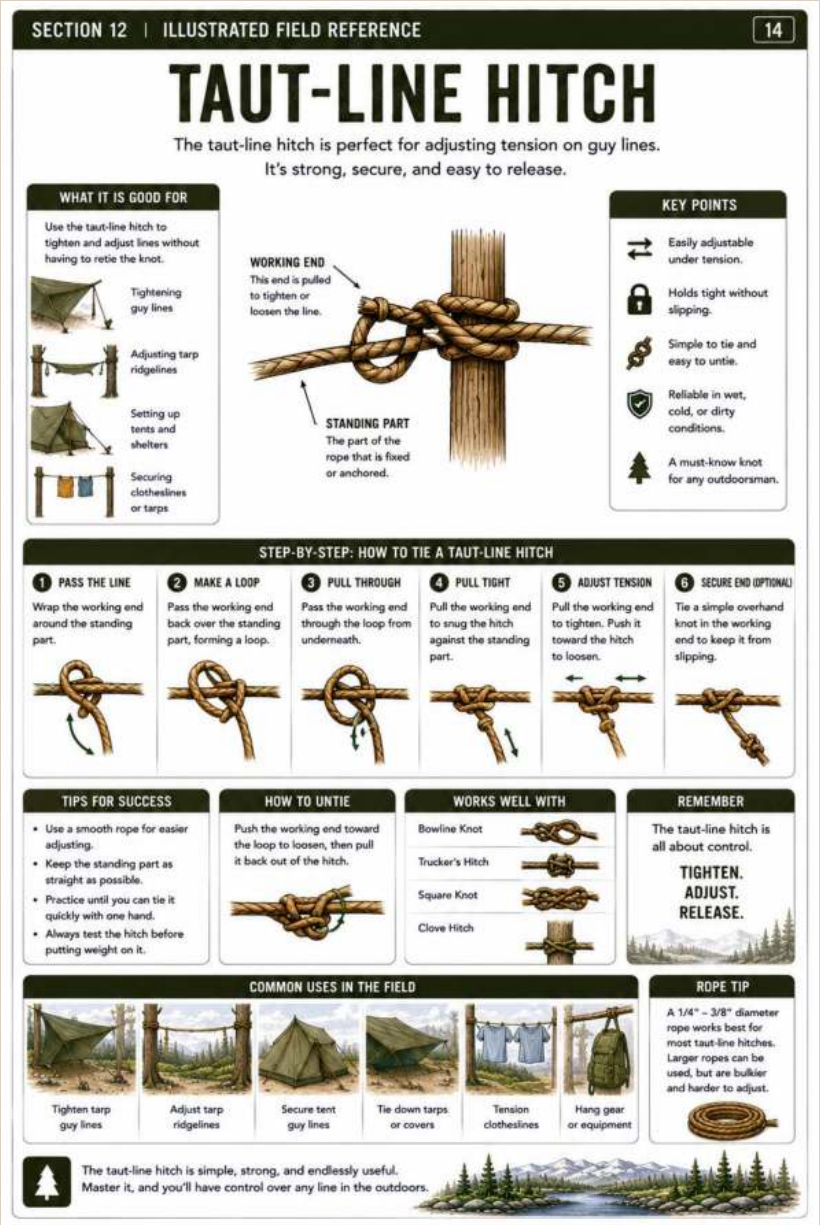
PRACTICE IT

Tie and untie a bowline on a piece of cordage until you can form a secure fixed loop without stopping to think, then use it to attach a line to a post or tree.

FIELD GUIDE · NO. 14

Taut-Line Hitch

An adjustable loop for tightening or loosening tarp and tent guy lines.



FROM THE BOOK

1. The taut-line hitch makes an adjustable loop for tightening or loosening tarp and tent guy lines.
2. Keeping corners and guy lines snug distributes tension across the fabric and reduces unnecessary flapping. A loose line lets a tarp sag and collect rain.
3. The campsite checklist in the book includes tightening guy lines if needed before you turn in, and checking that the shelter is secure.
4. Practice this knot before you need it. Adjustable tension is much easier to set when your hands already know the hitch.

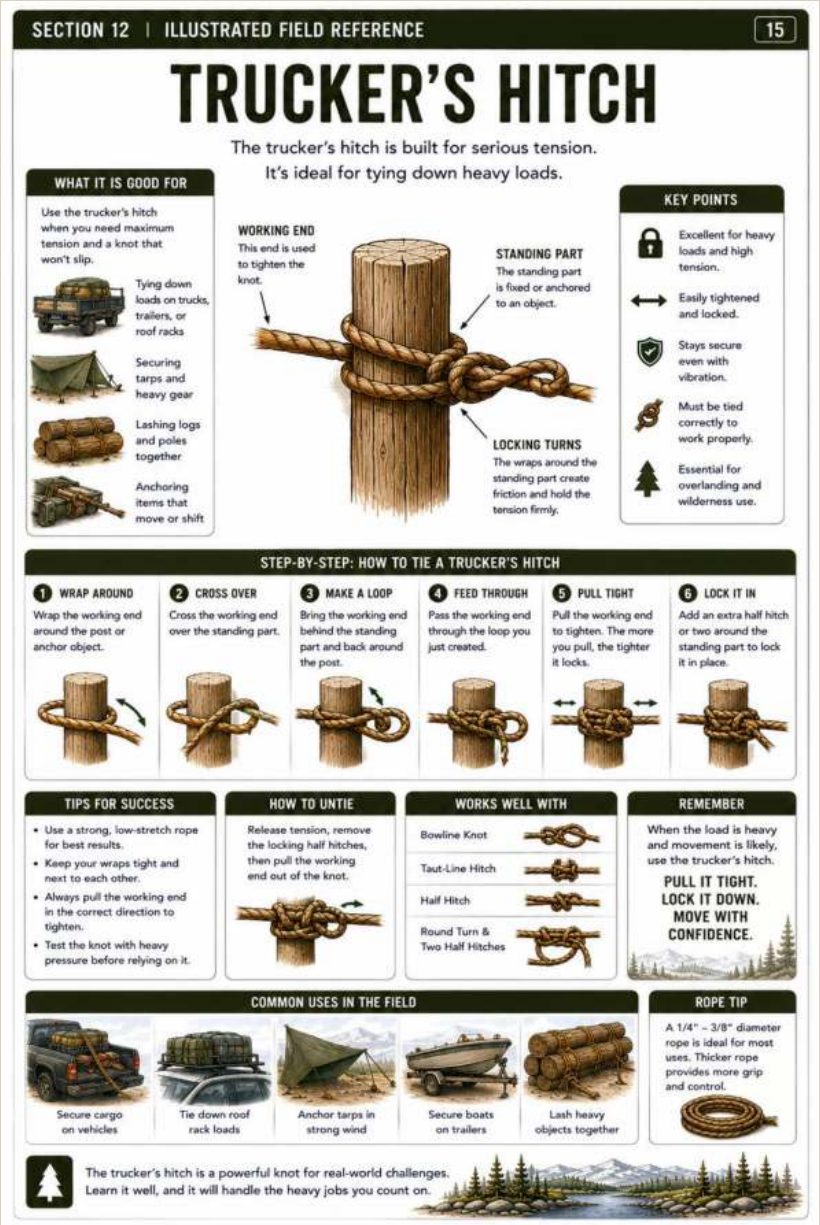
PRACTICE IT

Pitch a tarp or guy out a corner of a tent and use a taut-line hitch to tighten, then loosen, the line without untying it from the stake.

FIELD GUIDE · NO. 15

Trucker's Hitch

Tightens ridgelines and secures loads with added mechanical advantage.



FROM THE BOOK

1. The trucker's hitch tightens ridgelines and secures loads with added mechanical advantage — useful when a line needs to be truly taut.
2. A loose ridgeline allows a tarp to sag, creating low spots where rainwater collects and adding strain to the fabric and tie-outs. A taut ridgeline sheds water more effectively and is generally quieter on windy nights.
3. The same idea applies to securing a load: get the line tight enough to hold, then finish it so it stays that way.
4. Practice this hitch before you need it. Getting a ridgeline tight is much easier after a little repetition than at dusk in the wind.

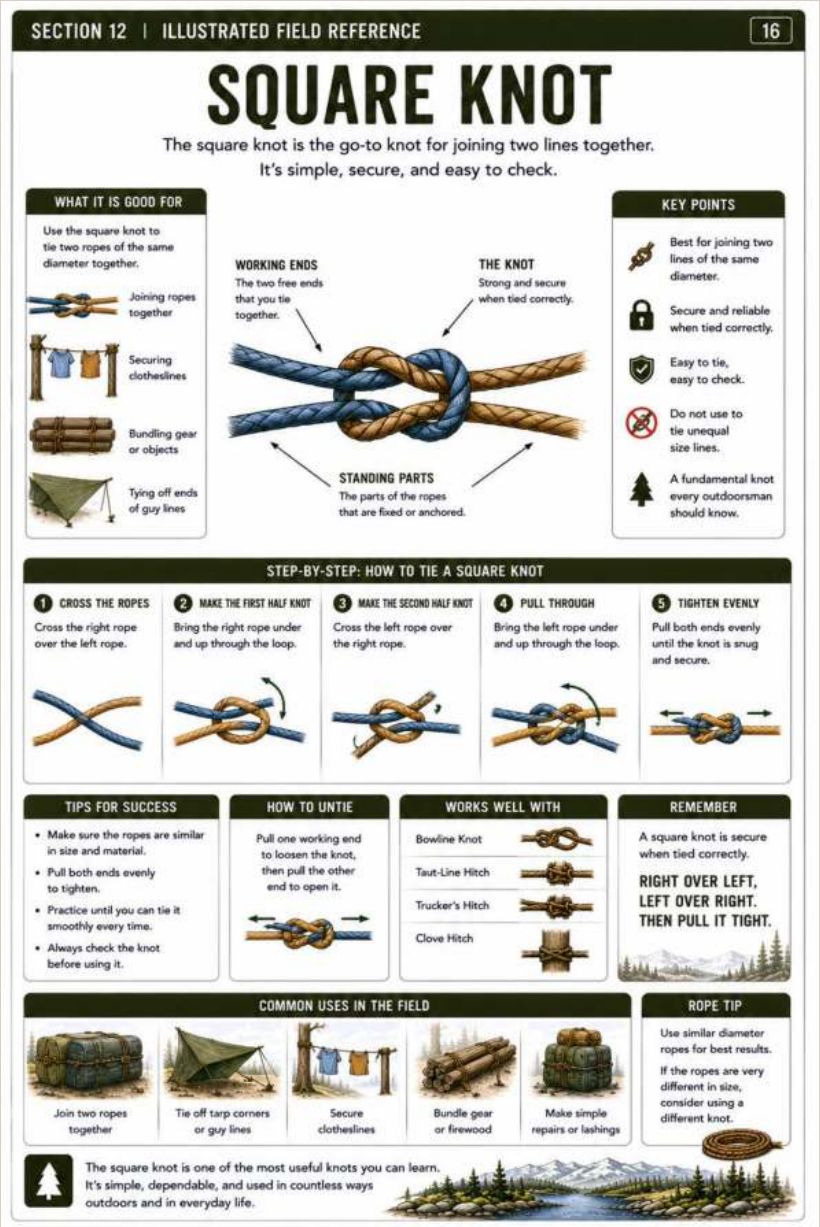
PRACTICE IT

Stretch a ridgeline between two solid points and tighten it with a trucker's hitch until the line no longer sags, then release and tie it again.

FIELD GUIDE · NO. 16

Square Knot

Joins two ropes of similar size for light-duty applications.



FROM THE BOOK

1. The square knot joins two ropes of similar size for light-duty applications. That is the use given in the book — not a general-purpose knot for every load.
2. A handful of dependable knots will solve most shelter-building tasks you will encounter in the field. Use each one for the job it is meant to do.
3. Keep the job light-duty: the book does not present the square knot as a knot for critical or heavy loads.
4. Practice it before you need it. It becomes much easier to tie after a little repetition, and easier still if you can distinguish it from a knot that will slip.

PRACTICE IT

Join two similar pieces of cord with a square knot, dress it snug, and then untie and retie it until the pattern is familiar.

FIELD GUIDE · NO. 17

Tourniquet Placement

For life-threatening bleeding from an arm or leg when direct pressure cannot control it.



FROM THE BOOK

1. Make sure the scene is safe, and put on disposable gloves if they are available, before you come into contact with blood. Call emergency services as early as possible — do not delay the call while you search for supplies.
2. For most severe bleeding, direct pressure is the first and most effective treatment. A commercially manufactured tourniquet is for life-threatening bleeding from an arm or leg when direct pressure cannot control it or cannot be maintained.
3. Place the tourniquet about two to three inches above the wound, and never directly over a joint. Tighten it until the bleeding stops, not merely until it becomes uncomfortable. Secure the windlass according to the manufacturer's instructions.
4. Once a tourniquet has been applied correctly, do not loosen or remove it as a bystander. Record the time it was applied — on the tourniquet or on the patient's skin, if appropriate — and give that time to emergency responders.
5. Do not apply a tourniquet to the neck or torso, where it cannot be used safely. Do not pack random materials into a wound unless you have been trained to use proper wound-packing techniques and supplies.
6. Most everyday injuries, even those that bleed freely at first, respond well to direct pressure and a dressing. Knowing when a tourniquet is needed is as important as knowing how to apply one. Watch for signs of shock (pale skin, cool extremities, rapid breathing, weakness, or confusion), keep the person warm, and turn care over to emergency medical personnel as soon as possible.

PRACTICE IT

If you have not already, take a certified first-aid or bleeding-control course and practice applying a commercial tourniquet on a training limb or with an instructor — not as a substitute for calling emergency services.

Educational reference only. Not a substitute for certified first-aid training or professional medical care. In a life-threatening emergency, contact local emergency services as soon as it is safe to do so. Use this information only within the limits of your training.

FIELD GUIDE · NO. 18

Pressure Bandage

Steady, continuous direct pressure is the first and most effective treatment for most severe bleeding.



FROM THE BOOK

1. Before you provide care, make sure the area is safe and put on disposable gloves if they are available. Locate the source of the bleeding before you treat it.
2. Place a clean dressing or cloth directly over the wound and press firmly, with both hands if necessary. Apply steady, continuous pressure. Do not keep lifting the dressing to check your progress — releasing pressure can disturb a clot that has started to form.
3. If blood soaks through, do not remove the original dressing. Place another dressing on top of it and keep pressing. Adding layers while you maintain pressure is generally better until professional care is available.
4. Call emergency services for life-threatening bleeding. First aid bridges the time until professional care; it does not replace it.
5. Most everyday injuries respond well to direct pressure and a properly applied dressing. After the immediate emergency, keep watching the person's breathing, skin color, and alertness, and be ready to describe what you saw and what care you provided.
6. For smaller cuts, after cleaning and once bleeding has slowed, cover the wound with a clean dressing or an adhesive bandage of the right size. Change dressings when they become wet, dirty, or loose.

PRACTICE IT

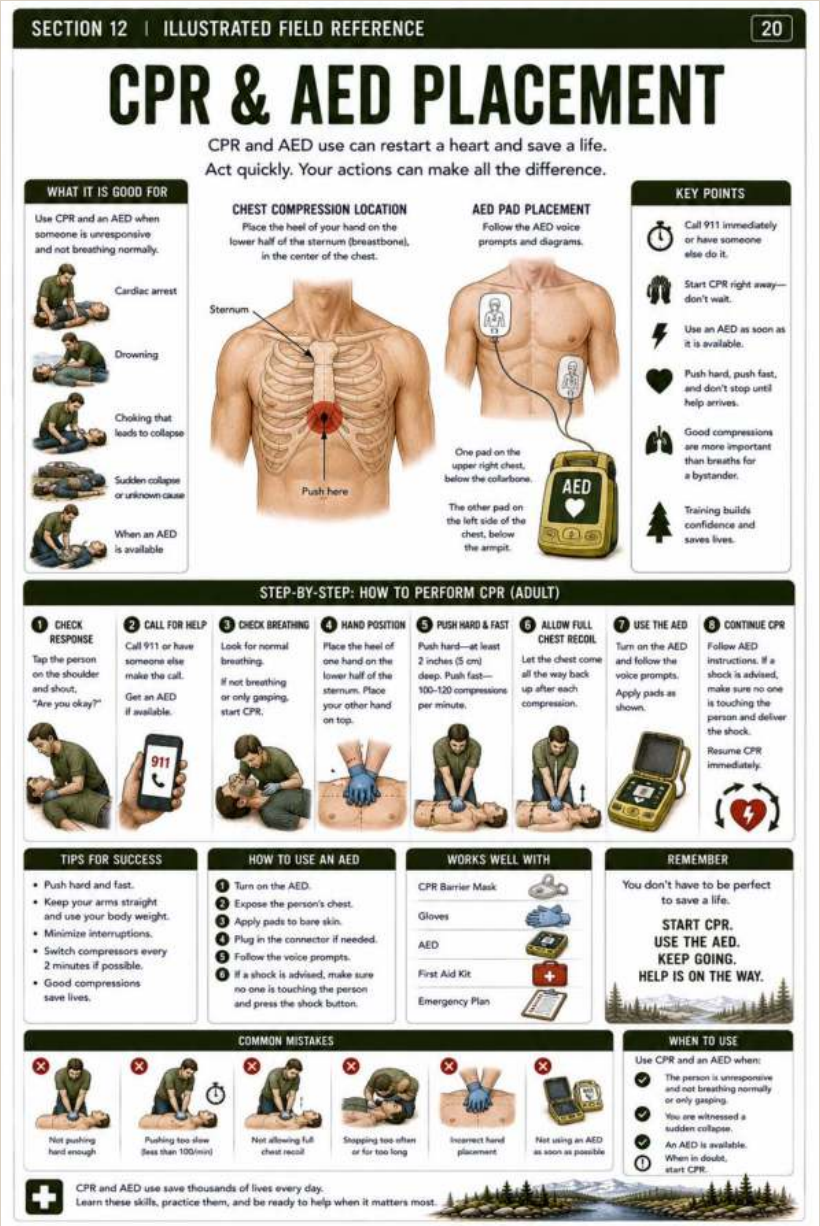
Open your first-aid kit, locate dressings, gauze, and gloves, and practice placing a dressing and applying firm, continuous pressure so the motions are familiar. Get certified training for bleeding control when you can.

Educational reference only. Not a substitute for certified first-aid training or professional medical care. In a life-threatening emergency, contact local emergency services as soon as it is safe to do so. Use this information only within the limits of your training.

FIELD GUIDE · NO. 20

CPR & AED Placement

Call for help, start CPR if it is needed, and use an AED as soon as one is available.



FROM THE BOOK

1. Make sure the area is safe. Try to get the person's attention — speak in a normal voice and gently tap their shoulder. If they do not respond, look for normal breathing. Someone who is not breathing normally or is only gasping should be treated as a medical emergency.
2. Call emergency services immediately, or direct a specific person to make the call. If others are present, ask someone to locate an AED.
3. CPR helps circulate blood to the brain and other vital organs when the heart has stopped beating effectively. It cannot restart the heart on its own. Current guidelines emphasize firm, continuous chest compressions at the proper depth and rate. For adults, hands-only CPR (continuous compressions with no pauses for rescue breaths) is the recommended approach for anyone not trained in rescue breathing.
4. If you have been trained, follow the techniques you were taught and continue until responders arrive, another trained person takes over, or you cannot physically continue. If you have not been formally trained, emergency dispatchers can often give instructions by phone.
5. An AED is designed for ordinary people to use. It gives spoken instructions. Once pads are on the person's bare chest, the device analyzes the rhythm and decides whether a shock is appropriate. If a shock is advised, it will tell everyone to stand clear. If not, it will direct you to continue CPR. Do not decide the shock yourself — follow the device.
6. Children and infants require different CPR techniques, best learned through hands-on training. Notice where AEDs are kept in places you visit. If the person begins breathing normally again and no spinal injury is suspected, the book says to place them in the recovery position to help keep the airway open, then keep monitoring until professionals take over.

PRACTICE IT

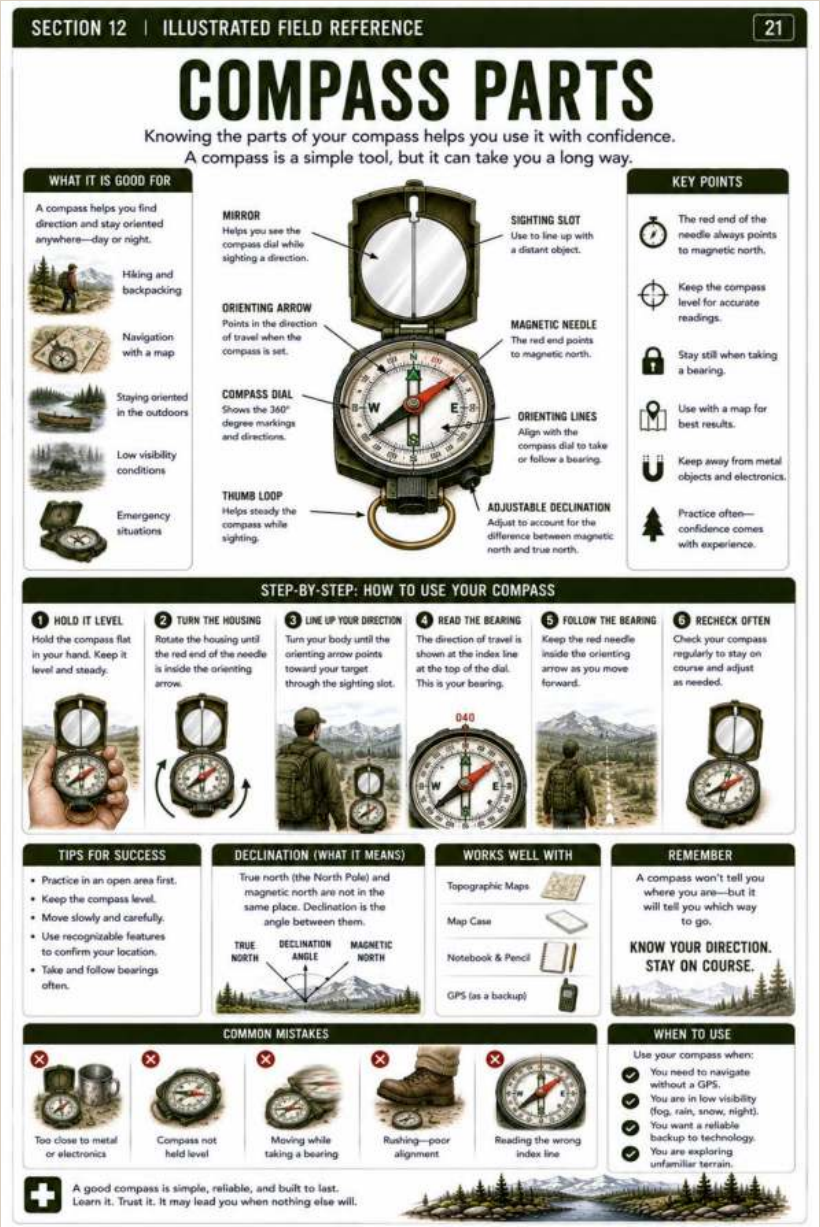
Take a certified CPR and AED course, and notice the AED locations in buildings you already visit so you would not have to search for one for the first time during an emergency.

Educational reference only. Not a substitute for certified first-aid training or professional medical care. In a life-threatening emergency, contact local emergency services as soon as it is safe to do so. Use this information only within the limits of your training.

FIELD GUIDE · NO. 21

Compass Parts

A compass has one job — it points toward magnetic north. Know the parts that help you use that information.



FROM THE BOOK

1. Most modern baseplate compasses include a magnetic needle, a rotating bezel marked with degrees, a direction-of-travel arrow, and a clear baseplate for lining the compass up with a map.
2. The magnetic needle always points toward magnetic north. The direction-of-travel arrow points where you intend to go.
3. Unlike a phone or GPS, a compass does not need batteries, a signal, or an internet connection — as long as it is working and you are using it correctly.
4. Hold the compass flat and level, and keep it away from vehicles, fences, power lines, large tools, firearms, and electronic devices, which can pull the needle off.
5. Before a trip, check that the needle moves freely and settles smoothly. If the needle will not settle or behaves oddly, move away from metal or electronics and check again.

PRACTICE IT

Sit with your compass, name the needle, bezel, direction-of-travel arrow, and baseplate, then hold it level and watch the needle settle away from keys, phones, and tables with metal parts.

FIELD GUIDE · NO. 22

Taking a Bearing

Use the compass with a map to choose a direction, then walk to a landmark — not with your eyes locked on the needle.



FROM THE BOOK

1. Hold the compass flat and level, away from metal and electronics, and let the magnetic needle settle completely.
2. To orient yourself without a map: slowly turn your body until the north end of the needle aligns with the north marking on the housing. You are then facing the direction shown by the direction-of-travel arrow.
3. With a map: place the compass so the edge of the baseplate connects your location with the place you want to reach. Rotate the housing until its guide (orienting) lines are parallel with the map's north-south lines. Then, holding the compass level, turn your body until the magnetic needle aligns with the north marking in the housing. The direction-of-travel arrow now points along the bearing you have chosen.
4. Do not walk for miles staring at the compass. Choose a landmark in that direction — a distinctive tree, boulder, or trail marker — walk to it, and repeat.
5. After a little practice the sequence becomes natural. Check before a trip that the needle still moves freely.

PRACTICE IT

In a park or yard, pick a visible tree, take a bearing to it as the book describes, walk to it, and confirm you arrived at the landmark you chose.

FIELD GUIDE · NO. 23

Basic Map Symbols

A map is a picture of a place from above. The legend tells you what the symbols mean.



FROM THE BOOK

1. Start by answering "Where am I?" Compare the map to your surroundings. A road intersection, bridge, lake, ridgeline, power line, or stream crossing can serve as a reference point.
2. Every map uses symbols, colors, and lines. The legend (or key) explains them. If you are not sure what a symbol means, look there first.
3. In the book's examples, a dashed line may represent a hiking trail and a solid line a paved road. Different shades of green, blue, or brown can indicate forests, water, and changes in elevation. Other symbols vary by map — use that map's legend.
4. Scale tells you how distance on paper relates to distance on the ground. A trail that looks a few inches long may be several miles.
5. On topographic maps, contour lines show elevation change. Lines close together mean steeper terrain; lines farther apart suggest gentler slopes.
6. Orient the map so it matches the direction you are facing. Keep the map in a waterproof sleeve or bag, somewhere you can reach it without unpacking your whole pack, and check it as you go — not only at the start of the day.

PRACTICE IT

Unfold a local map, find the legend and scale, match two visible landmarks to the map, and turn the sheet until those features line up with the land in front of you.

FIELD GUIDE · NO. 24

Ground-to-Air Signals

Large, simple symbols in the open help aircraft understand what you need.



FROM THE BOOK

1. If aircraft may be searching, an open area is usually easier to see from than a spot under a dense canopy. Move to more visible ground only if you can do it safely.
2. Ground-to-air signals communicate simple information quickly. Make large symbols with rocks, logs, backpacks, or other materials that contrast with the terrain, and place them where they can be seen clearly from the air.
3. The book's field reference: X means medical assistance is required; V means assistance is required; Y means yes or affirmative; N means no or negative.
4. Make the symbols as large as practical. A person standing alone is much harder to recognize from above than a large, clear shape.
5. Bright clothing, a reflective emergency blanket, or a signal mirror also helps search teams see you. Smoke can signal too, but only if a fire is safe, legal, and kept under control — a signal should not become another emergency.

PRACTICE IT

In your yard or a legal open area, lay out a large V or X with contrasting objects, walk a short distance away, and see whether the shape is still obvious. Then pick the materials back up.

FIELD GUIDE · NO. 25

Whistle Signals

Three short blasts are the standard call for help. A whistle carries farther than your voice and takes less energy.



FROM THE BOOK

1. A whistle weighs almost nothing, needs no batteries, and can be heard much farther than shouting. It also takes far less energy; after a few minutes of yelling, most people are hoarse and tired.
2. Three short blasts are widely recognized as a signal that help is needed. That is the standard call for help recognized by searchers and strangers.
3. Repeat the signal periodically rather than blowing continuously. Pausing between groups of blasts gives rescuers a chance to locate the sound and lets you listen for a reply.
4. Three flashes of light are also a recognized distress signal. Morse SOS — three short, three long, three short — can be made with a whistle, flashlight, horn, or signal mirror. Repeat, pause, and continue until someone responds or help arrives.
5. The book notes that a later illustration includes additional signals for communicating within your own group. Those meanings apply only if everyone in the party has agreed on them in advance. Do not expect strangers or searchers to know unofficial codes.

PRACTICE IT

Carry a whistle where you can reach it quickly, and practice three distinct blasts, a pause, and three more, so the pattern is automatic.

FIELD GUIDE · NO. 26

Emergency Radio Call Format

A calm, organized message is easier to understand than a long, rushed one.



FROM THE BOOK

1. Listen for several seconds before you transmit, so you do not interrupt a channel already in use. Think about what you want to say before you press the button.
2. Hold the radio a few inches from your mouth. Press the transmit button, pause briefly, then speak. Starting to talk at the same instant you press the button often cuts off the first words.
3. Speak clearly, at a normal pace. State who you are calling, if known. Give your location first, then a brief description of the situation, how many people are involved, and what assistance is needed.
4. Keep messages short. Release the button, listen for a reply, and avoid unnecessary conversation on a busy channel.
5. Packaged "range" numbers are often measured under ideal conditions. Hills, forests, buildings, and weather usually make the practical range much shorter.
6. Charge or replace batteries before you need the radio, and practice with it. Confidence comes from having already used the equipment.

PRACTICE IT

With a partner on the same channel (in a place radios are allowed), run a short practice call: listen, pause, give a location, a brief situation, and a request, then release and listen.

FIELD GUIDE · NO. 27

Go-Bag Layout

A go-bag covers the first day or two away from home — built around likely needs, not every possible scenario.



FROM THE BOOK

1. A go-bag is not meant to support weeks in the wilderness. It provides essential items for the first day or two of an unexpected evacuation, a roadside emergency, or a time when you cannot return home immediately. The checklist in the book is framed around the first 24–72 hours.
2. Do not try to pack everything you own. If the bag is already hard work to carry in the driveway, simplify. Choose a comfortable, durable backpack or small duffel you will actually take with you.
3. Think first about water, food, shelter, warmth, light, first aid, communication, and simple tools. A compact water bottle, a small first-aid kit, a flashlight with fresh batteries, a lightweight rain jacket, and a few shelf-stable snacks often beat heavier, specialized gear.
4. Include a complete change of clothes appropriate to your climate (especially dry socks), plus everyday personal items: prescription medications, eyeglasses, basic toiletries, a phone cable, and a small power bank. Add a notebook, a pen, copies of essential documents in a waterproof sleeve, and a list of important phone numbers.
5. Leave a little room for last-minute items. Keep the bag where everyone in the household can reach it — a closet or near the front door — not buried in an attic. Protect it from excessive heat and moisture.
6. Inspect it regularly: replace expired food, refresh water if appropriate, check batteries, rotate clothing with the seasons, and keep medications current. Inspect at least twice each year. The best test is to carry it on a short walk or a weekend trip.

PRACTICE IT

Weigh your go-bag, carry it around the block, and then unpack and repack it so the items you would reach for first are easy to find.

FIELD GUIDE · NO. 28

Layering System

Several lighter layers let you adjust as you go — and help you stay dry, which helps you stay warm.



FROM THE BOOK

1. Rather than depending on one heavy coat, several lighter layers let you adjust to changing conditions. If you start to sweat on an uphill hike, remove a layer before you overheat so your clothing stays drier. When you slow down or the temperature falls, add it back.
2. Moisture is a problem because water conducts heat away from the body far more efficiently than air. Wet clothing (from rain, snow, or sweat) loses much of its ability to trap warm air. Put on a rain jacket before the rain begins, not after the layers underneath are soaked.
3. Wind carries heat away faster than still air. Getting out of the wind — behind a rock, into trees, under a tarp, or into a vehicle — is often one of the quickest ways to feel warmer.
4. A warm hat, dry socks, and well-fitting gloves often add more comfort than people expect. Change into dry socks after walking through wet grass or snow.
5. Food and water help your body produce heat. Do not skip meals, and drink water even if you do not feel thirsty in the cold.
6. Respond while you are only slightly cool. Waiting until you are shivering makes recovery harder. Add a layer before the temperature drops, and remember that sitting or sleeping on cold ground pulls heat away — a pad or other insulation underneath matters.

PRACTICE IT

On your next cool walk, start with layers you can add or remove, and actually shed a layer before you sweat. Notice how much drier — and warmer — you stay.

FIELD GUIDE · NO. 29

Sleeping System

A sleeping bag does not generate heat. The bag, the pad, dry clothing, and the shelter work together.



FROM THE BOOK

1. A sleeping bag does not generate heat. Your body produces the heat; the bag slows how quickly that heat escapes. Climbing into a bag already chilled often means a long wait to feel comfortable.
2. The ground matters as much as the bag. Insulation compressed under your body loses much of its ability to trap warm air. A sleeping pad — foam, air, or both — creates a barrier between you and the soil, rock, or snow.
3. Temperature ratings are a starting point, not a guarantee of comfort. Age, body size, fatigue, hydration, and what you have eaten all affect how warm you feel. Choose a bag with a reasonable margin for changing weather rather than the lightest bag available.
4. Wear dry clothing inside the bag, ideally a clean, dry base layer. A warm hat helps because heat is lost through any part of the body left exposed. Avoid clothing so bulky that it compresses the bag's loft — compressed insulation cannot trap air efficiently.
5. Eat a warm meal before bed. A short walk can warm you; strenuous exercise that leaves you sweaty does not help. Ventilate the shelter when you can to reduce condensation. Keep the bag in a waterproof stuff sack or heavy-duty liner during the day.
6. At home in a winter outage, the same ideas apply: gather in one room, use bags or extra blankets, and add insulation under sleeping areas.

PRACTICE IT

At camp or even on the living-room floor, lay out pad, bag, and a dry base layer, and notice how much colder the floor feels without the pad.

FIELD GUIDE · NO. 30

Equipment Maintenance

Good equipment stays dependable when you inspect it, clean it, and replace what is worn — before it fails.



FROM THE BOOK

1. Before a trip: check flashlights and headlamps; test radios and other electronics; verify batteries; inspect knives and multi-tools; confirm water filters are clean and working; inspect cordage for cuts or fraying; make sure the repair kit is complete and that critical gear is easy to reach.
2. After a trip: clean off dirt and debris, dry wet gear completely before you store it, replace used supplies, recharge batteries, repair or replace damaged items, and put everything back where it belongs.
3. Knives: clean and dry after use, keep the blade sharp, oil lightly when appropriate, and store the knife in a sheath or folded closed. Multi-tools: clean joints, lubricate pivots occasionally, and check locking mechanisms.
4. Lights: test them regularly, replace weak batteries, and inspect seals and switches. Store batteries in a cool, dry place, not loose against keys or coins. Remove batteries from equipment going into long-term storage when the manufacturer recommends it.
5. Water filters: clean as the manufacturer directs, backflush if required, protect from freezing, and replace elements as recommended. Cordage: dry it if wet, coil it neatly, and replace damaged sections. Restock the repair kit, including tape, thread, fasteners, and adhesives that may have dried out.
6. Inspect regularly, practice using the gear, and replace worn items before they fail. The goal is not to own the most equipment — it is to know that what you already have will work when you reach for it.

PRACTICE IT

Lay out the gear you actually carry, run through the before-trip checks above, and fix or replace one neglected item (a weak battery, a dull blade, or a frayed line) today.

FIELD GUIDE · BONUS

Fire Starting Method

Carry more than one way to make a flame, and make lighting the last step, not the first.



FROM THE BOOK

1. Modern ignition tools make fire building easier, but they still need a plan. A disposable lighter is simple and dependable, yet it can fail if it is damaged or runs out of fuel.
2. Waterproof matches are an excellent backup. A ferrocerium rod continues to work even after it has become wet, once it has been dried off. Carrying more than one way to start a fire is inexpensive insurance when warmth or safe drinking water may depend on it.
3. Prepared tinder — commercial fire starters or cotton balls coated with petroleum jelly — can make an enormous difference when natural materials are damp. A few ounces weigh very little.
4. Place tinder where your ignition source can reach it easily. Light it in one or two places rather than trying to ignite every corner at once, then give the kindling time to catch before you add larger wood.
5. Gather enough tinder, plenty of kindling, and larger fuel, and build your fire lay, before you strike a match or spark a rod. Lighting the fire should be the final step, not the first. Build fires only where they are permitted, and never leave a fire unattended.

PRACTICE IT

In a safe, permitted fire ring, spark a ferro rod or light a waterproof match into a cotton ball or commercial starter, then transfer the flame to kindling you already have stacked and ready.