

SHELTER SURVIVAL GUIDE

Build strong. Stay dry. Sleep warm.



SITE

FRAME

INSULATE

MAINTAIN

KNOWLEDGE • SKILL • DISCIPLINE • SURVIVAL

Independent educational field guide • verify current laws, local conditions, and expert guidance

READ THE RISK, THEN CHOOSE THE LEAST COSTLY SAFE MOVE

How to Use This Guide

Survival work is a sequence, not a shopping list. Stabilize exposure, establish a clean water routine, protect fire and sleep, then spend energy on upgrades that reduce future work. Adapt every method to local terrain, law, weather, wildfire restrictions, wildlife rules, and your actual training.

1 STOP Check injury, weather, daylight, and exit.	2 STAY DRY Rain and sweat defeat insulation quickly.	3 BUILD SYSTEMS Water, wood, sleep, repair, and sanitation reset daily.	4 SAVE CALORIES Short lanes and boring routines beat heroic chores.
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6	Frame, Bracing, Anchors, and Load	A roof is a load path, not a pile of branches
7	Roofing, Drainage, Floor, and Bed	Water follows gaps; cold follows contact
8	Ventilation, Condensation, and Fire Separation	Warmth without smoke, sparks, or carbon monoxide
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10	Inspection, Storm Reset, and Repair	Maintenance is cheaper than reconstruction
11	Shelter Selection Matrix	Choose the least expensive structure that controls the dominant threat

IMPORTANT SAFETY NOTE
 This material is educational. It does not replace hands-on instruction, emergency medical care, official water-treatment directions, local fire orders, or site-specific avalanche, flood, tree-fall, wildlife, and weather guidance.

FIELD CARD
 SURVIVAL PRIORITY

1

 Stabilize exposure before spending calories on upgrades.

2

 Build repeatable water, fire, sleep, repair, and sanitation systems.

3

 Check current local rules and verify every high-risk method.

THE BEST SHELTER IS THE ONE NOT PLACED UNDER A PROBLEM

Site Selection Before Construction

A beautiful structure in a flood path, under a dead tree, or on a wind funnel is still a bad shelter. Scout before cutting anything heavy. The aim is not a perfect site. It is the least dangerous site with workable access to water, fuel, and travel routes.

SCREEN FATAL HAZARDS - Look up: dead limbs, leaning snags, damaged trunks, rockfall, ice-loaded branches, and trees rooted in saturated soil. - Look down: flood debris, tide marks, drainage channels, unstable banks, roots, holes, peat, and deep duff. - Look out: avalanche paths, storm surge, exposed ridges, funnel winds, lightning exposure, and animal travel corridors. - Do not build where fire can travel underground through roots or organic soil.	CHOOSE THE MICROCLIMATE - Favor natural wind protection without sealing yourself into stagnant, damp air. - Use slight elevation above wet ground, but avoid exposed high points and cold-air basins. - Choose ground that drains around the shelter rather than into it. - Keep water and fuel close enough for a safe routine, but keep sleep outside flood, splash, and scent zones. - Walk the route after dark in your head. If tired hands and bad weather make it absurd, move.
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SITE RULE

A shelter should buy down risk every day. If the site creates a new water, wind, fire, wildlife, or travel problem, the structure is charging interest.

FIELD CARD

SITE SELECTION BEFORE CONSTRUCTION

1

Look up: dead limbs, leaning snags, damaged trunks, rockfall, ice-loaded branches, and trees...

2

Look down: flood debris, tide marks, drainage channels, unstable banks, roots, holes, peat, a...

3

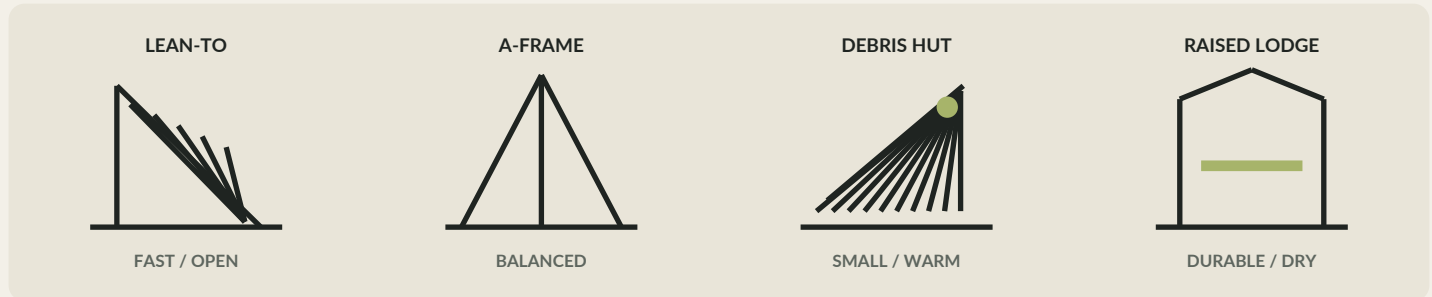
Look out: avalanche paths, storm surge, exposed ridges, funnel winds, lightning exposure, and...

RESET: roof • anchors • drainage • dry bed

SMALL ENOUGH TO HEAT, LARGE ENOUGH TO WORK

Shelter Design Logic and Fast Forms

Shelter performance comes from geometry and routine more than decoration. A compact volume reduces heat loss, a steep roof sheds weather, raised bedding separates the body from cold ground, and planned ventilation moves moisture and smoke out.



THE HEAT SHELL

- Size the sleeping core around bodies and bedding, not standing-room pride.
- Use a low profile in high wind and a steeper pitch in heavy rain or snow.
- Seal lower wind gaps while preserving deliberate high and low vents.
- Offset or shield the entry so wind and wet gear do not blow into bedding.

THE WATER SHELL

- Roof first, walls second, comforts last.
- Overlap every roofing course from the eave upward like shingles.
- Extend eaves beyond walls and entry, then add a clean drip edge.
- Route runoff around camp with shallow diversion only where legal and safe.
- Test the roof with real water before moving the sleep system inside.

DESIGN CHECK

Can it shed the forecast? Can smoke leave? Can the bed stay dry? Can every surface be inspected and repaired without dismantling half the camp?

FIELD CARD

SHELTER DESIGN LOGIC AND FAST FORMS

- 1 Size the sleeping core around bodies and bedding, not standing-room pride.
- 2 Use a low profile in high wind and a steeper pitch in heavy rain or snow.
- 3 Seal lower wind gaps while preserving deliberate high and low vents.



RESET: roof • anchors • drainage • dry bed

MATCH STRUCTURE TO WEATHER, TIME, TOOLS, AND CALORIES

Emergency and Long-Stay Shelter Choices

Emergency shelters are temporary risk controls. Long-stay shelters are repairable systems. Build the smallest reliable protection first, then upgrade after water, fire, sleep, and exit plans are stable.

FAST OPTIONS - Lean-to: fast and easy to inspect; best when one dominant weather direction can be blocked. - A-frame or low ridge: balanced protection and a strong ridge; brace before loading roof weight. - Debris hut: compact heat shell when dry insulation is abundant; labor heavy and easy to build too large. - Tarp or poncho: fastest carried-material option; protect from abrasion and retension after weather changes.	LONG-STAY CONCEPTS - Rain lodge: steep roof, deep eaves, raised bed, dry porch, and serious drainage. - Cold low-profile lodge: tight volume, protected entry, deep bedding, and optional cold sink. - Double roof: inner heat shell plus outer rain shell with a draining air gap. - Bermed or semi-subterranean: can cut wind where soil and rules allow; never trade wind for flooding or collapse. - Grow in modules: sleep shell, porch, wood annex, drying area, tool wall, and storage.
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MODULAR RULE

Every upgrade should attach to yesterday’s work. Avoid designs that require tearing out the first roof to build the second one.

FIELD CARD

EMERGENCY AND LONG-STAY SHELTER CHOICES

1

Lean-to: fast and easy to inspect; best when one dominant weather direction can be blocked.

2

A-frame or low ridge: balanced protection and a strong ridge; brace before loading roof weight.

3

Debris hut: compact heat shell when dry insulation is abundant; labor heavy and easy to build...

RESET: roof • anchors • drainage • dry bed

A ROOF IS A LOAD PATH, NOT A PILE OF BRANCHES

Frame, Bracing, Anchors, and Load

Frames fail at connections, unsupported spans, overloaded roofs, and weak anchors. Use sound straight members, short spans, triangular bracing, redundant ties, and staged load testing.

STRUCTURAL SEQUENCE - Set main anchors or uprights on firm ground; reject rotten or split structural wood. - Install the ridge or main beam, then brace it before working beneath it. - Add rafters at even spacing and keep heavy roof material close to supports. - Add diagonal bracing so the frame resists side loads, not only gravity. - Load the roof in thin even layers while watching for twist, sag, or connection movement.	CONNECTIONS AND ANCHORS - Seat poles with notches when skill and tools allow; cordage should not stop every direction of movement by itself. - Wrap and frap lashings tightly, then protect them from abrasion and water pooling. - Use long stakes in soft soil, deadman anchors in sand or snow, and rock anchors where permitted. - Angle stakes away from load and mark guy lines for night travel. - Retension after rain, thaw, wind, and temperature change.
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LOAD TEST

Push and pull the empty frame from several directions. If it racks, twists, or walks before roofing, it will not improve under load.

FIELD CARD

FRAME, BRACING, ANCHORS, AND LOAD

1

Set main anchors or uprights on firm ground; reject rotten or split structural wood.

2

Install the ridge or main beam, then brace it before working beneath it.

3

Add rafters at even spacing and keep heavy roof material close to supports.

RESET: roof • anchors • drainage • dry bed

WATER
FOLLOWS
GAPS;
COLD
FOLLOWS
CONTACT

Roofing, Drainage, Floor, and Bed

A durable shelter needs a continuous shedding roof and a dry insulated sleep platform. These two systems usually return more warmth per calorie than adding square footage.

ROOF AND DRAINAGE - Start at the eave; each higher course overlaps the one below. - Offset seams through multiple layers and secure outer material against wind lift. - Use steep pitch for rain and snow; flat roofs demand stronger framing and better membranes. - Trace leaks uphill from the drip and patch well beyond the entry point. - Maintain swales, eaves, and paths so water never pools against anchors or the bed.	FLOOR AND INSULATION - Build a stable raised platform with closely spaced poles or slabs and no sharp points. - Create resilient depth beneath hips and shoulders using pads, boughs, grass, leaves, mats, or textiles. - Protect one dry sleep set: base layer, socks, headwear, and bedding. - Separate clean sleep space from wet boots and processing gear. - Replace wet or crushed natural bedding before it becomes a cold sponge.
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WARMTH PRIORITY

Before adding a room, deepen the bed, close the wind gap, repair the roof, and protect dry sleep clothing. Square footage does not generate heat.

FIELD CARD

ROOFING, DRAINAGE, FLOOR, AND BED

1

Start at the eave; each higher course overlaps the one below.

2

Offset seams through multiple layers and secure outer material against wind lift.

3

Use steep pitch for rain and snow; flat roofs demand stronger framing and better membranes.

RESET: roof • anchors • drainage • dry bed

WARMTH WITHOUT SMOKE, SPARKS, OR CARBON MONOXIDE

Ventilation, Condensation, and Fire Separation

Breath, wet clothing, cooking, and damp ground create interior moisture. Combustion adds smoke, sparks, and carbon monoxide. Vent deliberately and keep ordinary campfires, grills, charcoal, and stoves outside enclosed shelters.

VENTILATION AND DRYING • Provide a high exhaust path and lower intake without creating a body-level draft. • Protect vents from precipitation and keep them unobstructed. • Separate wet gear from bedding and run a daily drying routine. • Place clothing near useful heat but outside flame, sparks, and fabric-melting radiant heat. • A double roof or liner may catch drips, but it does not replace ventilation.	FIRE AND CO SAFETY • Use mineral soil or an established fire area well away from roofing, bedding, roots, and overhead fuel. • Keep water and an extinguishing tool ready and an exit route clear. • Never use unvented fuel-burning devices in a tent or enclosed shelter. • Headache, dizziness, weakness, nausea, confusion, or unusual sleepiness near combustion are emergency warning signs: move to fresh air and seek help. • If the shelter requires an attended fire to remain survivable, add another layer of protection.
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CARBON MONOXIDE

Fresh air is the treatment, not a cracked door and confidence. Carbon monoxide is colorless, odorless, and capable of turning fatigue into a fatal misdiagnosis.

FIELD CARD

VENTILATION, CONDENSATION, AND FIRE SEPARATION

1

Provide a high exhaust path and lower intake without creating a body-level draft.

2

Protect vents from precipitation and keep them unobstructed.

3

Separate wet gear from bedding and run a daily drying routine.

RESET: roof • anchors • drainage • dry bed

PROTECT TONIGHT BEFORE CONSTRUCTING NEXT MONTH

Build Sequence and Energy Budget

Build order should track immediate risk and forecast. Overbuilding early can create injury and a calorie deficit before the shelter begins paying rent.

PHASE	PRIMARY WORK	STOP WHEN
First 2 hours	Scout hazards; mark flood and wind concerns; establish emergency roof; protect bedding and ignition.	Darkness, worsening weather, or fatigue makes cutting unsafe.
Day 1	Complete rain shell; build bed; establish drainage; create fire and water routines; protect dry fuel.	You have dry sleep, clean water, and enough fuel for the night.
Days 2-3	Brace frame; deepen insulation; improve entry; add wood cover, drying line, and short paths.	Each new project reduces tomorrow's work.
Week 1+	Add porch, tool wall, work table, storage, storm anchors, and modular annexes.	Maintenance, food, and recovery need the calories more.

WORK-REST RULES

- Use short cutting blocks with planned hydration and hand warming.
- Stop precision work when coordination drops.
- Stage materials before lifting or climbing so trips are not repeated.
- End every day by resetting water, tinder, bedding, and exit.

PROJECT TEST

- Does it add warmth, dryness, safety, stored fuel, or usable work capacity?
- Will it reduce daily walking, bending, or exposure?
- Can it be completed before the forecast changes?
- Can it be maintained with declining energy? If not, it may be camp theater.

FIELD CARD
BUILD SEQUENCE AND ENERGY BUDGET

- 1 Use short cutting blocks with planned hydration and hand warming.
- 2 Stop precision work when coordination drops.
- 3 Stage materials before lifting or climbing so trips are not repeated.

RESET: roof • anchors • drainage • dry bed

MAINTENANCE IS CHEAPER THAN RECONSTRUCTION

Inspection, Storm Reset, and Repair

Wind loosens anchors, rain compresses roofs, snow adds load, heat dries lashings, and foot traffic changes drainage. A two-minute daily inspection prevents dramatic failures.

DAILY CHECK - Roof: new sags, exposed seams, displaced cap material, and blocked runoff. - Frame: cracks, twist, loose lashings, moving stakes, or crushed contact points. - Floor: damp bedding, pooling water, mud migration, insects, and rodents. - Ventilation: open smoke path, manageable condensation, and separated wet gear. - Fire separation: scorched material, shifted reflector, stray fuel, and spark damage.	STORM RESET - Secure doors, tarps, roof edges, and weather-side anchors. - Move bedding, ignition, dry clothing, and critical tools to the safest position. - Clear drainage and mark guy lines before visibility collapses. - Stage protected fuel without blocking vents or exits. - Abandon for active flood, bank failure, avalanche, wildfire, major tree movement, collapse, or CO risk.
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TWO-MINUTE RULE

Inspect after waking and after strong weather. Small movement is information. Ignore it long enough and it becomes architecture.

FIELD CARD

INSPECTION, STORM RESET, AND REPAIR

1

Roof: new sags, exposed seams, displaced cap material, and blocked runoff.

2

Frame: cracks, twist, loose lashings, moving stakes, or crushed contact points.

3

Floor: damp bedding, pooling water, mud migration, insects, and rodents.

RESET: roof • anchors • drainage • dry bed

CHOOSE THE LEAST EXPENSIVE STRUCTURE THAT CONTROLS THE DOMINANT THREAT

Shelter Selection Matrix

No shelter type wins everywhere. This matrix is a planning aid; carried material, daylight, injuries, local rules, fuel, and available dry insulation can change the answer.

CONDITION	BEST FIRST CHOICE	UPGRADE PATH	COMMON FAILURE
Cold + dry + windy	Low ridge or compact A-frame	Deep bedding, wind skirt, protected entry	Oversized interior and exposed doorway
Cold + wet	Steep A-frame or rain lodge	Double roof, raised bed, porch, drying system	Shallow pitch and wet bedding
Warm + heavy rain	High-airflow tarp or steep lean-to	Deep eaves, raised floor, insect control	Sealed ventilation and trapped humidity
Heavy snow	Steep compact frame with short spans	More braces, regular shedding, marked exit	Flat roof and overloaded ridge
High wind	Low profile behind terrain windbreak	Redundant anchors and small surface area	Ridge-top or funnel placement
Short emergency	Tarp, poncho, lean-to, safe overhang	Ground insulation and wind block	Spending all daylight on a cabin

DECISION ORDER

- 1. Site hazard and exit.
- 2. Rain and snow shedding.
- 3. Wind control.
- 4. Ground insulation.
- 5. Ventilation.
- 6. Repairability.

GO / NO-GO QUESTIONS

- Would I sleep here through the forecast?
- Can I leave quickly in darkness?
- Can one bedding set stay dry?
- Can the roof and frame be inspected?
- Does fire remain safely outside?
- Will daily maintenance remain affordable?

FIELD CARD
SHELTER SELECTION MATRIX

11. Site hazard and exit.

22. Rain and snow shedding.

33. Wind control.

RESET: roof • anchors • drainage • dry bed

USE, INSPECT, RESET, AND VERIFY

Field Checklist and Sources

This guide consolidates the project’s long-duration ALONE-style field-manual iterations and updates high-risk claims with current public-health, fire-safety, cold-stress, and Leave No Trace guidance. Practice before relying on any skill and check current local orders at the point of use.

FINAL CHECK □ Site clear of immediate fall, flood, avalanche, tide, and wind-funnel hazards □ Roof sheds forecast precipitation and drainage clears the footprint □ Frame braced; anchors, lashings, and load paths inspected □ Bed raised; insulation and sleep clothing dry	FINAL CHECK □ Ventilation open; ordinary combustion kept outside □ Fire, fuel, food, and waste separated from sleep □ Storm repair kit, light, footwear, and exit route staged
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AUTHORITATIVE REFERENCES

Centers for Disease Control and Prevention: [Carbon Monoxide Poisoning](#)
Occupational Safety and Health Administration: [Cold Stress Guide](#)
National Park Service: [Leave No Trace Seven Principles](#)

USE WITH JUDGMENT

Independent educational fieldcraft reference. Not affiliated with or endorsed by the television series ALONE, its producers, broadcasters, or participants. Local rules and emergency guidance always control.

FIELD CARD

PRACTICE BEFORE DEPENDENCE

1

Site clear of immediate fall, flood, avalanche, tide, and wind-funnel hazards

2

Roof sheds forecast precipitation and drainage clears the footprint

3

Frame braced; anchors, lashings, and load paths inspected

RESET: roof • anchors • drainage • dry bed