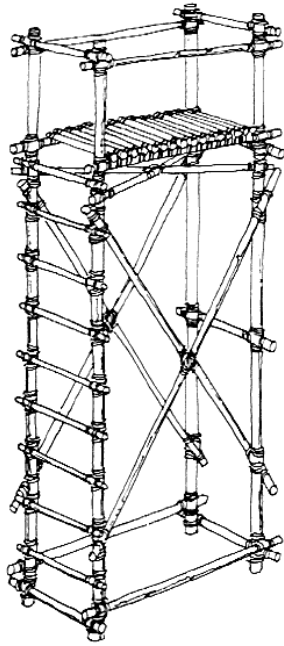


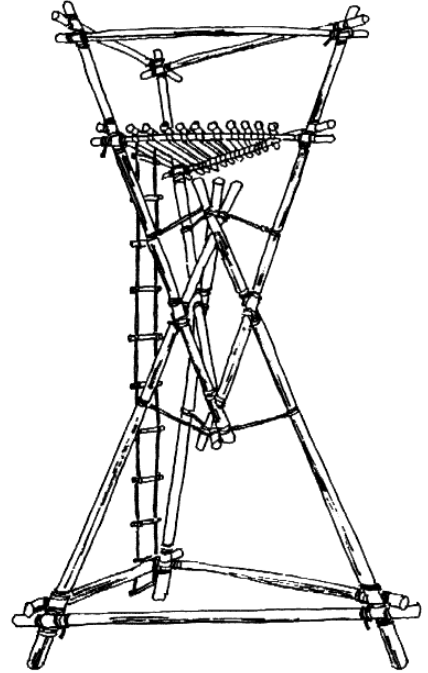
**CAMPING SKILLS****CAMPING SKILLS – DAY 6**

<b>Planning Information</b>	
<b>Subject (Presenter):</b>	Camping Skills – Day 6
<b>Objectives:</b>	<ul style="list-style-type: none"> <li>• Testing</li> <li>• Mini-Pioneering: Practice Lashing &amp; Knot Tying</li> <li>• Lighting Stoves</li> <li>• Lighting lanterns</li> </ul>
<b>Materials:</b>	<ul style="list-style-type: none"> <li>• Rope and Staves (for both practice and testing)</li> <li>• Stoves, propane and matches</li> <li>• Lanterns, propane and matches</li> </ul>
<b>Preparation:</b>	
<b>Presentation</b>	
<b>Learning Objectives:</b> At the end of this presentation, each participant should be able to:	<ol style="list-style-type: none"> <li>1. Practice knots and lashing while other Scouts are being tested.</li> <li>2. Square knot, Sheet-bend, Two-half hitches, Tautline hitch, Timber hitch, clove hitch, bowline, Square Lashing, Sheer Lashing, and Diagonal Lashing.</li> </ol>
<b>Discovery:</b>	
<b>Teaching-Learning:</b>	<i>Test Requirements</i>  <b>Demo:</b> <i>Scouts not being tested will be building a mini-pioneering project or practice lighting stoves &amp; lanterns</i>
<b>Application:</b>	<ol style="list-style-type: none"> <li>1. Mini-Pioneering</li> </ol>
<b>Evaluation:</b>	<ol style="list-style-type: none"> <li>1. Check that the lashes and knots are properly tied and tight</li> </ol>
<b>Summary:</b>	
<b>Notes:</b>	Handouts: <ul style="list-style-type: none"> <li>• Pioneering Tower Projects</li> <li>• Stoves &amp; Fuel</li> </ul>

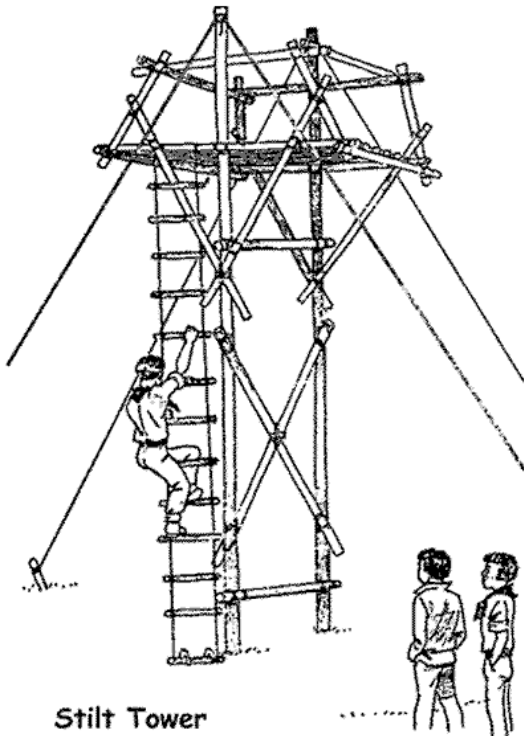
# Pioneering Tower Projects



Signal Tower



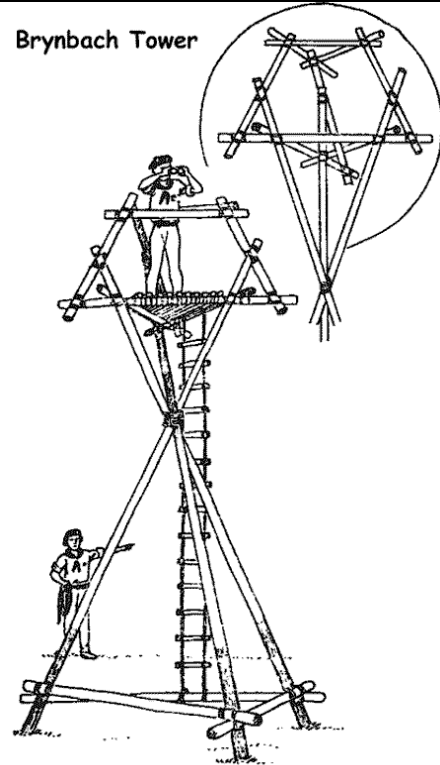
Hour Glass Tower



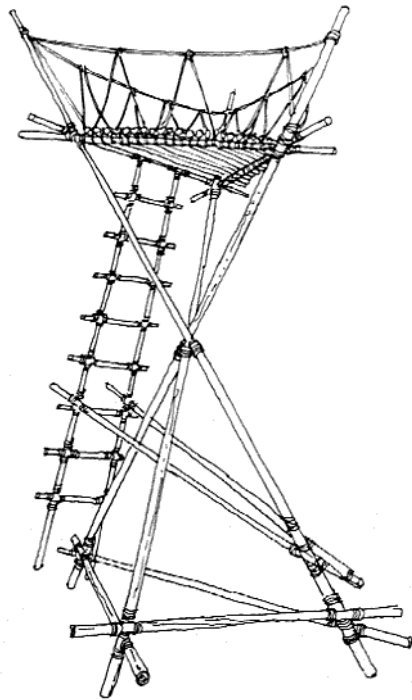
Stilt Tower

Stilt Tower

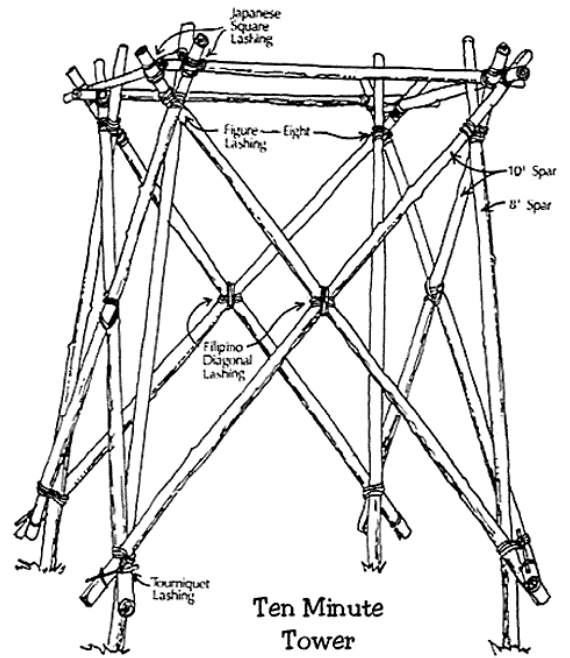
Brynbach Tower



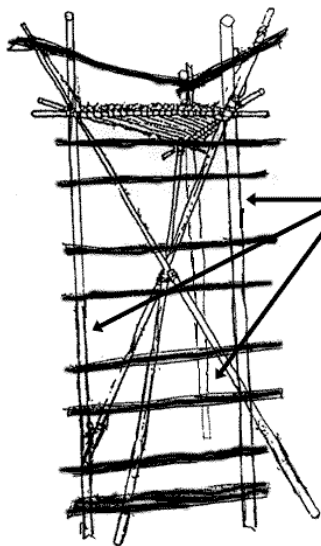
Brynbach Tower



Triangular Signal Tower



10 Minute Tower



Wood Badge SC455  
"Pfox Tower"

Includes 3 straight supports that hold the ladder and provide extra bracing. You may or may not need these. AS BUILT, this tower held 4 200lb. adults at one time!

PFox Tower

# Backpacking Stoves and Fuel

Backpacking stoves must be used with adult supervision and should never be used in or near tents because of the excessive fire danger. Bottles designed for fuel should be used to carry fuel. Check the gaskets of your fuel bottles to make sure they will not leak. A small funnel is needed for easy transfer of liquid fuels. If using commercial transportation, check with your carrier regarding regulations for shipping stoves. One stove per four persons is generally best.



Learn and follow these safety tips:

1. Keep fuel containers away from hot stoves and fires.
2. Never use fuel to start a campfire.
3. Let hot stoves cool before changing cylinders or refilling.
4. Never fuel or operate a stove in a tent, building, or dining fly.
5. Place stove on a level, secure surface before operating.
6. When lighting a stove, keep fuel bottles and extra canisters well away.
7. Do not hover over stove, open fuel valve slowly, and light carefully.
8. Refill stoves away from open flames.
9. Recap all containers before lighting stoves.
10. Do not overload the stove.
11. Do not leave a lighted stove unattended.
12. Perform stove maintenance regularly.
13. Store fuel in proper containers.
14. Carry out empty compressed fuel containers; they will explode if heated.
15. Use stoves only with knowledgeable adult supervision.

# Liquid Fuels & Stove Types

## Fuel types

### 1 - Automobile gas

Will provide heat but auto gas additives will smoke and clog stoves. Never burn leaded gas as it produces a toxic black residue.

### 2 - White gas

This is an additive-free gasoline. Best cold weather performance of chemical fuels. Highly volatile and prone to FLAREUPS when priming and starting stove.

### 3 - Kerosene

Cheaper than white gas, burns hotter, is less prone to flaring, and is widely available. Kerosene is difficult to start, produces large quantities of smoke when first priming. Spilled kerosene is smelly.

### 4 - Butane

Cartridge type fuel. Simplest, most convenient cooking fuel. Allows precise flame adjustment. Does not work in cold temperatures at low altitudes. Works well in cold temperatures at altitudes over 15,000 feet. Cannot be refilled.

### 5 - Propane

Burns hot in the cold. Requires heavy steel containers to contain gas. Works well for long term, in place camping. Too heavy for backpacking as containers, are heavy and are not reusable. Bulk containers of 11 pounds and 25 pounds are available for extended periods of in-place camping.

### 6 - Blended

Combination fuel of propane and butane. Added propane improves butane's cold weather performance. Problems still occur at higher altitudes.

### 7 - Alcohol

Denatured (methyl) alcohol burns cooler than gasoline, produces about 1/2 the heat for the same weight. Advantages are low volatility and lack of flareup. Simple alcohol burner is lightest stove around. Works well with windscreen. Denatured alcohol can be expensive and hard to find.

### 8 - Wood/solid fuel

Wood is still readily available in most wilderness settings. Overuse of area can deplete fuel source. Wet weather can make use of wood extremely difficult. Charcoal is an easy to use solid fuel. Charcoal is good fuel for novice campers as it does not require expensive stoves or maintenance in order to use.

## Stoves



### 1 - Bottled gas (butane)

Butane stoves are usually lightweight, compact and easy to transport. Use requires attaching cartridge and lighting. Cartridges must be packed out and can not be refilled.



### 2 - Propane

Easy to use. Attach bottle and light. Also can be used on large 2 burner camp stoves. No danger of spilling fuel, so this is an excellent choice for the first time camper. Drawback is fuel bottles are heavy and must be packed in and out. Various brands of stoves range from very heavy 2 burner "Coleman" stoves to a lightweight "grasshopper" stove.



### 3 - MSR/OPTIMUS white gas stoves

Small easy to pack stoves. Require priming past in cold weather. Some models have a small cup that fuel is poured into for priming. Can result in flare ups. Higher amount of preventative maintenance and cleaning required in order to keep stove functioning.



### 4 - Coleman PEAK ONE series

Coleman has produced three variations of the PEAK ONE backpacking stove. The regular white gas model, the dual fuel (white gas/auto gas) model, and the multi fuel (gas/kerosene) model.

The PEAK ONE stove has been designated by the Boy Scouts of America as a good compromise of factors in a backpacking stove. Fuel is readily available. The stoves do not require extensive maintenance. They are reasonably easy to keep clean and reasonably easy to use. Parts are readily available at most outdoor outfitters due to popularity of Coleman products.