

SCOUTS New Zealand Good Practice Guide

Precautions when making and using Hobo Stoves

Introduction

A Hobo Stove is a simple outdoor stove that a Cub can help make then use to cook a simple meal such as: sausages, pikelets, damper, hamburgers, or sizzling bacon, but here are a few pointers to help ensure that this is a fun and safe activity. This activity is not suitable for Keas.

This Good Practice Guide will outline the safety requirements on how to construct a Hobo Stove, cooking on a Hobo Stove and some precautions when using these stoves.

Skills Covered for Cubs:

- Make an outdoors stove
- Cook a sausage or damper on embers or a cooker or food of your choice

Cubs will learn about:

- Fire safety
- Treatment of scalds and burns
- Food hygiene

Safety Requirements

Supervision and Training

- Youth must be at least Cub age, not a suitable activity for Keas.
- This activity requires an Adult: Cub ratio of 1:4
- At least one adult present must be 1st Aid trained with a current certificate
- Cubs must have close supervision when cutting with tin snips and using the stoves
- If you are using wax, it must be melted, handled and poured by an adult. Cubs must not handle the wax or cans until they have cooled
- Cubs and adults present must be briefed on the activity including fire safety before lighting the stoves
- An adult needs to be present and able to take over immediately while the fire / burners are lit and going
- Everyone must be very careful of any loose flammable clothing worn or long hair.

Equipment

- A 1st Aid kit and fire extinguisher or fire blanket required
- Minimum of a bucket of water between four Hobo Stoves
- Closed-in shoes are to be worn by everyone

- A bigger tin to smother the Hobo Stove burner must be close by
- **DO NOT USE:** Any liquid fuels such as vegetable or cooking oil, Methylated spirits, Alcohol or White Spirits. For further information, refer to the SCOUTS New Zealand's Good Practice Guide for Camping Fuels.

Hazards: People and the Environment

- Be aware of flammable clothing (e.g. Nylon jackets and Puffer jackets)
- Consider food allergies, cultural and religious requirements when purchasing the food
- Hobo Stoves should not be used indoors. Consider the weather conditions (e.g. wind) and where flames or sparks may spread to.

Hazards: Fire

- Do not light fires or Hobo Stoves during a prohibited fire season or fire ban
- Candles or paraffin wax blocks should be melted in a double boiler so that they cannot catch fire
- Always have a bucket of water next to each four Hobo Stoves to:
 - Put out any fires created by the Hobo Stove
 - Put your hands, arms or leg in for 20 minutes if you get burnt. It cools the burn
- Never use water to put a wax fire out. It may splatter and flame-up. Smother the fire with a bigger tin
- Always light a Hobo Stove on level base soil or sand, in a fire pit or on concrete. Never light or use a Hobo Stove on a wooden table
- Never light a fire less than two metres from grass or shrubs. Clear area of twigs, leaves etc.

Hazards: Tins used for Hobo Stoves

- Ensure that:
 - Tins are washed and clean
 - Sharp edges are appropriately managed
 - The coating on the inside of some tins (used to protect the food) is removed or burnt off in an open ventilated area. Do this before the Cubs use the tins for cooking

Suggested Layout for this Activity

- Limit and control access to where the Hobo Stoves are being used
- To reduce the risk, you could:
 - Have Cubs in a circle with only Leaders allowed to pass through the circle or
 - Have the Cubs lined up along a wall with no one going behind the line of the burners.

Safer Scouting – It's what we do!

Making an Outdoor Hobo Stove

You need the following to make the Hobo Stove	
<ul style="list-style-type: none"> • A clean large empty baked bean tin, coffee tin (or similar) from a rest home, hostel or a café 	
<ul style="list-style-type: none"> • A bottle or tin opener that has a pointed end for cutting holes in tins • A pair of snips for cutting the tin 	
<ul style="list-style-type: none"> • A pair of snips for cutting the tin 	
Making the Hobo Stove	
<ul style="list-style-type: none"> • Firstly make chimney holes all around the top of the tin can (Stove) to let the smoke out • You need the holes 20mm apart as illustrated • Use the tin opener to do this • The complete flat end of the tin is the cooking surface so don't damage that! 	
<ul style="list-style-type: none"> • The next stage is to create a hole so you can insert the burner into the stove. This hole also allows the air in so the fire can burn. • Use the tin snips to make two cuts up about 75mm from the open end of the tin. • Bend the flap you have created, into the tin and back up towards the top so that it is out of the way 	
Heating the Hobo Stove	
<ul style="list-style-type: none"> • Hobo Stoves can be heated with a small wood fire, a 'Buddy Burner' (See next page) or natural (Wax or cardboard) commercial firelighters. • Vegetable or cooking oil is not to be used as a fuel. • Hexamine based firelighters and fuel tablets must not be used as the fumes from these products may: <ul style="list-style-type: none"> ○ Make the Cubs sick; and ○ Contaminate the food when it is being cooked. 	

You need the following to make the Buddy Burner

- A clean small empty salmon or cat food tin



- Corrugated cardboard from cardboard box
- Suitable fuel as discussed on previous page



Making the Buddy Burner

- Cut the cardboard in strips just a little shorter than the height of the burner tin.
- Roll up the cardboard and fit into the small burner tin
- Ensure the cardboard sits inside below the top lip of the burner tin
- An adult pour the fuel (melted wax) into the small burner tin until it is almost full
- Do not add too much wax into the burner. It takes a bit of time for the wax to soak into the cardboard but the wax expands when heated so over-filling the burner means that the wax will overflow when it is hot
- If you are using wax or fat, make sure it cools and sets before touching the burner tin.



Refilling the Buddy Burner

- Each Buddy Burner should burn between 1 – 1 ½ to 2 hours without needing to be refuelled
- They can be used for an indefinite period of time if they are replenished with wax as the wax burns at a lower temperature than the cardboard lengthening the life of the cardboard
- One method of refill the Buddy Burner is - for an adult only - is to place small chunks of wax on top of the corrugated cardboard while burner is alight
-

Cooking Using a Hobo Stove

Cooking Food on the Hobo Stove

- Outdoors cooking is part of the Cubs learning to look after themselves
- The Hobo stove is ideal for this activity
- Use can use the Hobo Stove to cook a sausage, damper, pikelets, to toast a bun or cook a meat patty,



Lighting the Hobo Stove

- Make sure all the safety precautions are in place and everyone knows what to do
- Put the Buddy Burner on a flat surface such as concrete, tin or bare dirt
- Place the Hobo Stove over the top
- Face the opening away from the wind
- Light the cardboard in the Buddy Burner using a match
- Consider having natural (wax and cardboard type) firelighters available to light the Buddy Burner
- Smear some oil or butter on the top of the Hobo Stove
- Once it is hot, you are ready to start cooking

Putting the Buddy Burner Out

- Use tongs to lift the big tin up off the burner
- Use a complete empty tin to place on top of the burner to smother the flames

DO NOT use water to put out the burner.

Cooking a sausage on the Hobo Stove

- Place a sausage on top of the hot stove and cook it through
- Keep turning the sausage with a fork or tongs so that it is brown on all sides
- If it starts going black, this means that you have not turned it often enough
- You can use pre-cooked sausages to make the cooking time shorter

Cooking damper on a Hobo Stove

- This takes a bit longer as you have to make the damper out of flour and milk/water before the Cubs start cooking.
- Don't forget the hygiene of washing hands before making the damper and eating.
- Make the damper like this:
 1. Put one cup of self-rising flour in a plastic bowl
 2. Pinch some salt up between your thumb and first finger and add that to the flour
 3. Add a heaped teaspoon of butter and of sugar
 4. Mix all this together with your clean fingers until the flour goes crumbly. Add half a cup of milk or water, continue mixing
 5. Add a little more milk until the mix is doughy, like plasticine. If it goes sticky, just add a little bit more flour
 6. Oil the top of the Hobo Stove and gently place a ball of the damper mix about the size of a scone on it. Flatten slightly and turn it as it cooks so it

is evenly browned on both sides

7. Let it cool, slice in half, spread butter or margarine on it with some jam and eat it
8. Alternatively, you could use baking paper. Use two pieces of paper to “sandwich” the food, allowing pick up and flipping your food a lot easier. Beware of the dangers of the paper catching fire.
9. Teach and demonstrate to the Cubs how to “flip” the damper you are cooking

Cooking a Hamburger on a Hobo Stove

- Cubs can either make their own patty or use a supermarket purchased patty
- Using tongs or spatula carefully place patty onto top of Hobo Stove that has had a little oil spread on it to stop it sticking to the tin
- Keep turning the patty with tongs/spatula so that it is brown all over
- Take the patty off the Hobo Stove and put onto a hamburger bun
- Make up the hamburger with lettuce, tomatoes, cheese, tomato sauce and whatever else you choose to have in it.

Cooking a Pikelet/Pancake on a Hobo Stove

- Cubs can make up their own pikelet/pancake mix or use a supermarket purchased mix (the latter is easier as you only have to add the wet ingredients and shake up and pour)
- Put a tablespoon full of batter/mix onto the top of the greased Hobo Stove with a spatula
- Turn pikelets/pancakes over when bubbles start to burst on top surface
- Cook until golden brown