

No Power Cookers- Instructions and Directions

Directions for Making a Stove-in-a-Can

ONLY FOR OUTDOOR USE



Supplies:

- 1 new quart size Paint Can with lid
- 1 roll Toilet Paper (cheap kind)
- 1 ½ bottles 70 % rubbing alcohol (Isopropyl not ethyl)

12oz Can (chunk chicken type) w/ holes drilled in and vents cut around bottom or #10 can w/vents



1. Remove cardboard roll from inside toilet paper and discard



2. Fold TP to fit inside can.

Fold TP to fit inside can.

3. SLOWLY pour rubbing alcohol over TP until covered. Cover tightly with lid.



4. To extinguish, cover w/ lid.

Stores @ 5 yrs
Burns @ 6 hours



LABEL FOR:

STOVE-IN-A-CAN

Emergency Outside Cooking

Place can heat resistant surface before lighting...bottom will get very hot.

Pry lid off and light with match....

Use can with holes, set on top, to provide air to fuel.

Add 1 c. rubbing alcohol after every 3 hours of use. (Douse flame to add)

To extinguish, cover with lid.

HINT: Food will get to about 160°, not boiling with this method.

IMPORTANT: Keep lid on as tightly as possible to prevent evaporation

Icebox Cooking

(From Emergency Food in a Nutshell)



For cooking soups, rice, stew, beans, etc. Uses 70% less fuel than conventional cooking. Also great for picnics, reunions, etc.

Caution: Food must remain above 140°. Test Icebox using pot of boiling water, ½-2/3 full. After 6 hours check temperature of water (w/thermometer)(our water boils at 206° F in AV). If water is below 140° add more insulation. Test again. Also if box is very cold, bring to room temperature before using. Cover cooker with heavy blanket.

Supplies:

Ice Chest (1-2" bigger than pot) or Sturdy container w/lid (cardboard box 4" larger than pot)

A pot w/ tight fitting lid

Lining (flannel, fleece, wool) NOT for ice chest

Insulation (hay, sawdust, blanket, towels, paper)

Cushion or pillow

Directions for Assembly:



1. Line container (Ice chest does not require lining).



2. Fill with insulation material.

3. Make a nest in insulation for the pot (min. 4" for bottom and sides for box,



4. Put pillow on top. Close lid.



To Cook

1) Assemble food in pot. Food should fill pot ½ - 3/4 full. Cover and bring to a rolling boil; simmer on medium 3 minutes.

2) Place piping hot, covered pot into insulated nest and top with a cushion or pillow. Then close lid.

3) Food will take 4 times as long to cook. Needs to be finished in 4-6 hours. If food needs to cook longer, remove from box, reheat, and replace (if usually cooks in 15 min. - takes 1 hour)

4) After cooking remove pot. Leave lid off so moisture evaporates before storing.



Solar Funnel Cooker

Dr. Steven Jones at BYU

<http://www.solarcooking.org/>



Materials

Car windshield reflector

Joining material: metal brad or Velcro

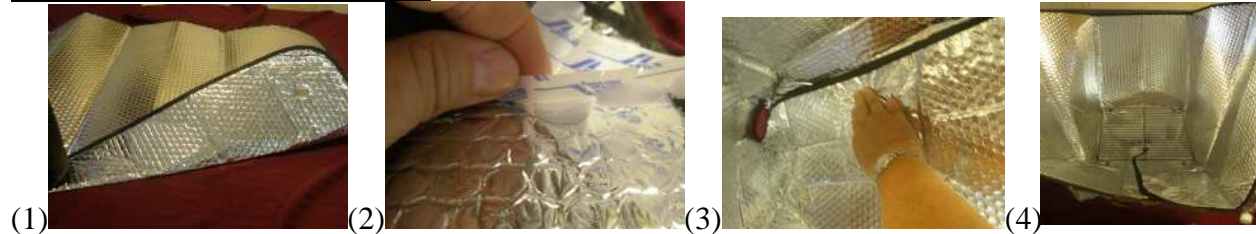
Jar (painted with ultra flat black paint) or thin black pot with tight fitting lid

Wire mesh cage, cooling rack for platform

Plastic Cooking bag (oven proof)

Bucket or box (weighted with rocks, brick etc.)

Assembling the Funnel Cooker



Bend into a funnel shape circle, over lap about 1 ½ inches (1)

Join the 2 sides together using fasteners or Velcro every 6 inches (2)

Press down firmly to secure (3)

Place funnel in bucket or box to stabilize, if hole in bottom cover with foil.

Place cookie rack in funnel to hold cooking vessel and allow sun on all sides. (4)

For greater stability, dig a hole and place funnel cooker inside

Cooking



Fill cooking vessel with food

Place the jar on top of platform, blow air into bag, secure at (or top put bag over top)

Place the bag and contents inside the funnel

Point funnel towards sun. Cook 1 - 4 hours

Alternatives

Use 2' x 4' piece of cardboard with foil glued to it instead of car reflector

Dig a hole, line it with aluminum foil and place the pot and bag in the center

For a more permanent cooker, line hole with cement and paint with reflective paint

Remember to make the opening 400 square inches or 23 inch diam

Dutch Oven Cooking

(Experts advise using Kingsford Briquettes only)

Ovens should have a tight fitting lid with a lip around the top to contain coals. It should have legs to make stacking available without cutting of the air supply. It should have a ring in the middle of the lid to be able to use a hook, tongs or pliers to remove the lid. When using more than one DO stack them several ovens high to conserve coals.

Hint: You can reuse partially burned coals by dowsing with water and completely drying.

Seasoning: Before using the first time you will need to season your oven. There are two reasons for this: to prevent rust; and create a natural, permanent non stick cooking surface.

Wash with warm soapy water and stiff brush to get off the residue. (May have to warm in oven first then wash) Dry well.

Video: how to season: <http://www.youtube.com/watch?v=THgcMtxecvE&NR=1>

Method 1 (*Method 1 will smoke up house; turn on fans, open windows*)

-Line bottom of oven with aluminum foil. Preheat to 450°

-Grease everything (pan and lid) inside and out with thin coating of Crisco, vegetable oil or lard.

-Bake both the oven and lid upside down in your oven for 1 hour. Then turn of heat let the oven cool in the oven.

-Remove and wipe out excess oil

Method 2

-Lightly grease inside and out. Suggested oils are vegetable, solid Crisco, bacon grease, or lard because they offer a low burning point. You do not want the oil to pool anywhere while you are seasoning your oven, so be sure to turn bottom side up.

-Put your Dutch Oven upside down. Put the lid on the top of the legs. Place Dutch Oven in gas BBQ on high heat until it turns black and burns the oil into the Dutch Oven. Remember, you want the heat around 500° to burn the oil in. You will notice that sometime during this process smoke will come out of the BBQ for about 20 minutes or so. This is normal. Remember, you are burning oil into the pan and creating the nice black look that you want. After one hour, just turn off your BBQ and let the Dutch Oven cool by itself.

HINT: Remember, you want your Dutch Ovens black not brown.....brown means that you need to season at a higher heat

Cooking

The first few times of cooking in DO cook greasy foods. (Avoid watery or tomato based foods) After the coals have white spots on them spread out on lid and or group underneath oven. The trick to using your DO is the get the heat just right for the job you want to do. You regulate the heat by adding coals or taking some away. A general rule is you use: Diameter of lid +0 coals on top, Diameter – 2 coals on bottom. (example: 12” Dutch oven = 10-12 coals on top / 8-10 on bottom). But this depends on what you are cooking. The tendency usually is to get the oven too hot, especially on the bottom. Remember, most cooking in a Dutch oven is from heat gained from the coals on the lid. You can look ever so often to check on the progress, just remember you will lose precious heat every time you take off the lid.

Hint: To check temperature of charcoal after it is lit use the following guidelines:

Hold hand a few inches above the coals.

Hold it there 4-5 seconds: 300° Hold it there 3-4 seconds: 350° Less than 3 seconds: 400°+

Cleaning

After cooking, scrape, wipe out and wash with water but NO soap. (If you use soap or scrape too hard you will need to re-season). Re-oil before storing. (no need to re-bake unless re-seasoning)

Storing

Store in a dry, warm place with the lid ajar for air to circulate. Good idea to put piece of wadded-up newspaper in absorb any moisture.

Rocket Stove

For video of step-by-step directions: <http://rocketstoves.org/>

5- gallon tin can

4" 90° Elbow

Leather Gloves

Knife-serrated

Empty, clean, can(fruit/chili/etc)

File

4" Stovepipe (1' long-one edge crimped)

Good, sharp Tin Snips

Pencil

Chisel

Hammer

Ashes (sand/dirt/for insulation, NON-flammable)

Use elbow, non-crimped end as a template to and draw a circle, centered, 1" from bottom edge of can. Use hammer/chisel to start hole on edge. Wearing gloves, use tin snips to cut out hole, staying on inside of line. File cuts so there is no sharp edges.

Measure 4" from crimped end of pipe make mark all around. Use tin snips to cut. File edge.

Measure 5" from uncut end of pipe, make mark all around. Use tin snips to cut. File edge.

Fit 4" piece into cut hole in can, crimped end inside can, trim/file if necessary to fit, should extend about 1 1/2" outside of can.

Use 5" piece as template for hole in lid. Use hammer/chisel to start hole. Cut w/tin snips. File

Fit 5" pipe piece onto elbow tightly. Attach elbow to bottom piece of pipe, tightly.

Cut edges off of lid so it will fit into can.

Fill can with ashes, until filled within 1" of top of 5" stovepipe. (acts as insulator)

Slip lid over 5" stovepipe and push down onto ashes,

Cut off top/bottom of can, Cut open along side, flatten. Mark 4" from center of bottom.

Mark 2 lines up from marks, stopping 1" from top. Cut along these lines. (looks like shirt)

Insert into cut area into 4" pipe, level w/bottom. This is fuel shelf: paper below, sticks above.

To Use Rocket Stove

(for outdoor use only – it will blacken pans)



(1)

Crumple up 2 pieces of paper, push to back of bottom shelf with hand or stick.



Slide 4-5 sticks onto top of fuel shelf, push to back.



(3)

Put grate or cookie rack on top of can, to set pot on.



(4)

Light paper with match, wait a minute. If really smoky, blow some air into fuel shelf until flame burns bright out of top.



(5)

Wait a few minutes until flame goes down. Put pot on top.



For hotter stove add more sticks for cooler add less, just push sticks in as needed. You can use anything that burns; charcoal, sticks, small pieces of wood.

Applebox Reflector Oven

(Emergency Food in a Nutshell)

To See Applebox in Action go to: <http://yourfamilyark.org/>

An inexpensive way to bake in an emergency. It uses about half the charcoal that a Dutch oven uses and gives the same results as baking in a regular oven. It bakes bread (two loaves at a time), rolls, muffins, casseroles, cookies and cakes, anything you would bake in an oven. Baking once a day for 1 hour, at 350°, will use 17 charcoals/day. Kingsford brand best=17 per pound One year= 20 (16-pound bags) Keep dry. Don't forget to store newspaper and matches.

Supplies:

Sturdy Applebox (20"x13"x12 1/2")

1-78" length heavy duty foil

Optional: for a window

1- plastic oven bag

box cutter

*Masking tape may be substituted in sticking the foil to the box. It must always be hidden inside the foil to keep it from igniting. Duct tape may be substituted in making the window. Over time it will need to be replaced.

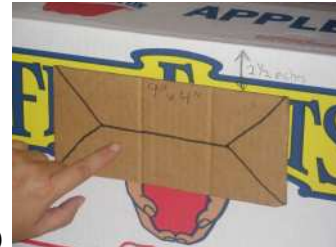
Pre-Preparation:



(1a)



(1b)



(2)

1) If there are any holes, including handle holes, in your box, cut extra cardboard to fill holes snugly (1a) and cover patch with foil tape on both sides (1b).

2) If an oven window is desired, cut a horizontal oven window (app. 9"x4") in one of the long sides, centered and 2 1/2 inches from the closed bottom of the box (2).

Covering the box:

This box will be entirely covered inside and out with foil and secured with tape curls. Any exposed box inside will burn, therefore overlap foil.

The 78" length of foil will cover the inside and outside ends of the box and the outside only of the bottom.



(3)



(4a)



(4b)



(5)

3) Lay foil shiny-side down. Position the box lengthwise and bottom down, centered on foil.

4) Fold one length of the foil up the end and inside the box. This end of the foil should fold onto the inside bottom about 4 inches. (4a) Smooth foil out and ease into corners, allowing the extra to go onto the sides. (4b) Then unfold to put on the tape curls.

5) Secure foil about every 4" with hidden tape curls or use foil tape – inside and out. (5)

6) Repeat the same procedure for the other end of the box.

7) Fold outside edges in and secure with straight tape pieces.



(5)



(6)



(7)

8) The 84" length of foil covers the inner and outer sides and bottom of the box.



(9)

9) Lay foil, shin-side down. Position and center the box across the foil, so the foil will cover the bare sides.



(10)



10) Begin on the side of the box without a window. Fold the very end of the foil strip over 1". Fold this end up and over the side of the box, down the inside and across the bottom and position it into the inside crease where the bottom and the opposite side meet. Unfold. Secure with tape curls every 4" or so. Repeat with foil on other side of box. **(DO NOT put tape within 1" of window opening)**

Making the window:



(11)



(12)



(13)

11) Feel carefully for the window location. Press with fingers along edges to show window.

12) Using scissors or box cutter, cut a horizontal slit in the middle of the window hole, stopping 2" from each side. At each end, make diagonal cuts to the corners.

13) You now have double flaps of foil on all sides of the window. Using a butter knife, carefully ease the inside flaps through the window and down between the box and the outside foil.

14) Fold the outside flaps through the window to the inside of the box and secure with small hidden tape curls.

15) If corners of window tear, cover with extra pieces of foil, secure with tape curls.



-) (17)
- 16) Using a plastic oven bag, cut a double layer rectangle $\frac{1}{2}$ " larger than the window on all sides. To prolong the life of the window, secure bag over the outside of the window opening.
- 17) Secure outside plastic bag edges with foil tape.

Baking with an Applebox Reflector Oven



Supplies needed:

4 empty soda pop cans, $\frac{1}{2}$ filled w/rocks
 Chimney charcoal starter*
 Charcoal briquettes
 Newspaper
 1" high rock

10 x 16 "cookie cooling rack
 Heavy duty foil – 36" (ground cover)
 long-handled tongs
 matches

Baking Steps

Place a piece of foil, shiny side up, on level ground or cement (not anything flammable)
 Space pop cans on foil so as to support the cookie cooling rack.
 Position cooling rack so that only the very corners are resting on the pop cans. Check to make sure the cans are not spaced too far apart to prevent the applebox from fitting over them. Set rack aside.
 You will regulate the temperature of your oven by the number of briquettes you put in it. One briquette = approx. 35 degrees F. (350 deg. = 10 briquettes). Count out desired number of charcoals into the charcoal chimney. (In very cold, wet or cold windy weather an additional charcoal or two may be needed.) Place chimney on a piece of foil on ground. Place a wadded up piece of newspaper in the base of chimney and light. Repeat with second piece of newspaper if necessary. Allow to stand 5-10 minutes until all charcoal has white spots at least the size of a dime.
 Using tongs, place hot briquettes on foil, spreading them out evenly between the cans and across the middle. Place cooling rack on top of the cans.
 To pre-heat oven, place the applebox over coals and rack, resting one corner on a charcoal 1" rock. (this allows enough air in the box for the charcoal to stay lit)/ Let stand for 5 min. Charcoal will become whiter as heat spreads.
 Carefully lift applebox off coals taking care not to tilt and place beside the ground foil. This holds trapped heat in the box.
 Quickly place tray of food to bake on cooling rack and replace box over coals, resting one corner on the rock. (Food cooked on cookie sheet should be place in from the corners as food directly over the cans will not cook)

Charcoal will burn for 35-40 minutes. When longer cooking times are required, additional hot charcoals can be added by slightly lifting the box and slipping them in with long tongs. *When adding additional coals, only add 1/2 the original number.* A little additional cooking time may be necessary to compensate for the heat loss when adding new charcoal.

When food is done, remove the applebox and serve.

Safely dispose of charcoal. Foil can be reused.



Note: Use light colored cooking/baking pans so that baked foods do not get too dark on the bottom.

Hint: When setting up oven, face the window toward the sun. This allows you to check the foods visually to see if they are done.

Hint: When baking in freezing temperatures, place a doubled piece of wool blanket or other material that insulated on top of the box to retain the inside heat.

*A chimney charcoal starter allows you to ignite charcoal without charcoal starter fluid, using only newspaper. It is well worth the effort to look for one to purchase. The most efficient kinds have holes going up the sides. This allows plenty of air to be drawn up through the inside, causing the charcoal to ignite more rapidly. Charcoal rests a third of the way up the starter on a rack, which gives space for wadded up newspaper underneath. The newspaper is then lit to ignite the charcoal. Always place the starter on a piece of heavy duty foil to prevent permanent blackening of your lovely concrete or patio-which we can attest does happen.

