

The Cardboard Box Oven

A cardboard box will make an oven -- and it works just as well as your oven at home! There are different ways to make a cardboard box oven.

1. The open top Box Oven

Cut off the flaps so that the box has four straight sides and bottom. The bottom of the box will be the top of the oven.

Cover the box inside COMPLETELY with foil, placing the shiny side out.

To use the oven, place the pan with food to be baked on a footed grill over the lit charcoal briquets. The grill should be raised about ten inches above the charcoal. Set the cardboard oven over the food and charcoal. Prop up one end of the oven with a pebble to provide the air charcoal needs to burn - or cut air vents along the lower edge of the oven.

2. The copy paper Box Oven

The cardboard boxes that hold reems of paper, 10 reems of 8 1/2 by 11 inch paper, or 10 reems of 8 1/2 by 14 inch paper, will make very nice box ovens. Line the inside of the box and lid with aluminum foil. Use a sponge to dab some Elmer's glue around the inside and cover to hold the foil in place. Make a couple holes in the cover to let the combustion gases out, and make a few holes around the sides near the bottom, to let oxygen in.

Make a tray to hold the charcoal using one or two metal pie plates. You can either make feet for a single pie plate using nuts and bolts, or bolt two pie plates together bottom to bottom. Cut a couple coat hangers to make a rack to hold up the cooking pan. Poke the straight pieces of coat hanger through once side, and into the other. Two pieces will usually do fine..

Put several lit briquets on the pie pan, put your cooking pan on the rack, and place the cover on top. The first time you use this box oven, check it a few times to make sure that enough oxygen is getting in, and enough gases are escaping, to keep the charcoal burning.

3. Box oven without the box!

David T. Berg says, "I saw a demo last week at our round table of the box oven minus the box! Procedure:

1. Pound four one inch + diameter by about 1.5 ft length sticks into the ground in the shape of a square about 1.5 ft per side and wrap them with heavy duty foil.
2. Arrange aluminum foil around stakes and drape over top and crimp to hold in place. Also line floor with foil.
3. Drive three or four stakes into the ground through the foil floor to hold up the baking dish.

It looked kind of ugly but worked pretty well for baking the bisquits. If you make it this way, you don't have to take up room with a bulky box. Anyway, that's what the person doing the demo said."

5. Yet another description of a Box Oven

From Dori Byron, Fair Winds Girl Scout Council Trainer, Brownie leader, and Computer nut, "You need:

1. One large box (wiskey or any double corrugated box that will fit a cake pan or cookie sheet with about 1" all around will do.) Note: this does not have to have a lid or top.
2. Lots of large high quality, heavy duty, tin foil (commercial time, use Renyolds wrap)
3. Four small TIN juice cans
4. A 9x13 cake pan or small cookie sheet

5. One #10 can, open at both ends and vented at bottom for charcoal chimney.
6. One small friendly stone to vent bottom

First cover the inside of box with two layers of foil. Be sure you have no box showing anywhere. You can tape it down on OUTSIDE. Place a large sheet of foil on a level, not burnable, piece of ground. Place the charcoal chimney on the foil and place a fire starter and whole charcoals (one for every 40 degrees of temperature plus one or two for cold, wet, or wind) Light the chimney and wait about 20 min for charcoal to be ready. Pull off chimney and spread out charcoal to fit under pan used. Place four small juice cans to support cake pan and lower box oven over all. Vent on leaward (thats away from the wind for non mariners) side with small stone. Cook for amount of time called for in recipe. If cooking for much more than 30 minutes replenish charcoal.

Note: Be sure and lift box straight up or you will "dump"the heat. No peeking allowed!! Anything you can cook in an oven at home can be done in a box though I prefer things that can be done in 30 min or so. Good Eating!"

For all box ovens:

Control the baking temperature of the oven by the number of charcoal briquets used. Each briquette supplies 40 degrees of heat (a 360 degree temperature will take 9 briquets).

Experiment! Build an oven to fit your pans - or your menu: Bake bread, brownies, roast chicken, pizza or a coffee cake. Construct a removable oven top or oven door. Punch holes on opposite sides of the oven and run coat hanger wire through to make a grill to hold baking pans. Try the oven over the coals of a campfire.

More information about Box Ovens, from the US Scouting Service Project

Recipes

There aren't many recipes here, because you can use this box oven to cook anything from any other cookbook that can be cooked in an oven!

Peachy Yums

Canned peach halves
Large marshmallows
Cinnamon

Place a well drained peach half, cut side up, on a piece of foil large enough to wrap it. Put one large marshmallow in the peach and sprinkle with a little cinnamon. Wrap the peachy yum. Warm in the box oven until the marshmallow is melty, 5-10 minutes.

Mmm, Mmm, Good! I want one now!

-- Thanks to Laura Humphrey, Lone Star Girl Scout Council

SAUSAGE BALLS

1 lb sausage
3 cups bisquick
1 8 oz jar Cheese Whiz or shredded cheese

Combine sausage (cooked), bisquick and cheese; shape into balls. Bake in preheated 300 degree oven for 25 minutes or until lightly browned.

How to Make a Cardboard Box Oven

Take a sturdy large box. Not too big. A box that was used to ship a 14-15" Computer Monitor is an excellent size. Completely line the inside of the box with aluminum foil (reflective side out). Seal the top of the box closed with duct tape. Cut a hole in the front (door to pass baking trays in and out of). Put steal rods or hangers through the middle of the box (forming a rack to place your baking trays). Place an inverted pie tin in the bottom and then another pie tin (right side up) on top. This is where your charcoal goes. It is important to have the inverted pie tin in order to insulate the bottom of the box from the charcoal. Place 1-2 pieces of charcoal in box per 100 (Fahrenheit) degrees of cooking temp. It is easy and simple. The only key here is make sure that there is absolutely NO exposed card board inside your box. This all must be covered with aluminum foil, otherwise your box will ignite.

Happy Cooking!

by Rich Goldman rgoldman@peddie.k12.nj.us

We used two ovens, because we were making 2 cakes. Here is our material list:

Standard photocopier paper box (Xerox), with a slip-on lid.

6 pieces of coat hanger wire, about 13-14" long

Aluminum foil to line.

9" X 12" foil cake pan.

9 charcoal briquettes.

The box was completely lined with aluminum foil. We used 18" heavy duty foil for this. Before the boxes were lined, we punctured the sides for the grill wires, at about a third of the way down from the top. Leave about 2-3" between wires. The 18" foil allowed us to run one piece of foil down one side, across the bottom, and up the other, with a little overlap on each side. We did the same, end to end. Then, we placed a piece of foil about twice the size of the box doubled over in the bottom.

The wires were then inserted through the pre-punched holes, then bent over at each end. Then we lined the lid. That takes an end to end pass, then a side to side pass also. At this point, you cut a ventilation hole at the bottom-middle of each of the four sides. Our holes were cut triangular, and about 1.5" high and across the base.

Pour the prepared cake mix into the cake pans. Using tongs, place 9 charcoal briquettes, spaced, in the bottom of the box-oven. Put the pan on the grill rack, and level the box if necessary. Now cover the box and wait 40-50 minutes for the cake to bake.

We did not make any special provisions to keep the coal from the bottom of the box, as there was already 4 layers of foil on the bottom.

BTW, the cakes couldn't have been better! Yum ;).

One final note: The amount of heat generated by a charcoal briquette has been quoted as 30° F. My understanding, for Dutch Oven work, is 25° F. For the box oven, we figured 50° F. The difference is that for a Dutch Oven, the coals are out in the air, which takes some of the heat. When the coals are enclosed in an oven, not as much heat is lost.

By Chuck Bramlet, ASM Troop 323, Thunderbird District, Grand Canyon Council
bramlet@ecc4.ateng.az.honeywell.com

Here's another method -- for use on a plain old wood fire.

You take a box, line it with several layers of foil, like you've heard from other people.

You make a fire, and burn it down to lots of coals -- like you're going to toast marshmallows, or cook in the coals.

You put something **safe** into the fire -- rocks or bricks, just make sure it can be in the fire -- to hold up a cookie sheet. You put the cookie sheet on top of your props over the fire. Make sure that the fire is not too hot/the pan is far enough above the fire so that food will not burn. Place food on cookie sheet, and place box over cookie sheet.

I've also used the box oven as a makeshift reflector oven -- set it with the open side toward the fire and tilt it slightly forward -- this works well for something like mini pizzas, so that they don't get burned on the bottom if your fire is just too hot.

By Kathleen Burton burton@lclark.edu

If you have never tried a box oven, let me describe how we've done it. First, you need: a cardboard box, newspaper, aluminum foil, heavy cloth tape (we use duct tape), a grill that will fit under the box, coffee cans to support the grill (optional if the grill is free standing), and a pie tin to hold the charcoal briquettes if you use a free standing grill.

You wrap the cardboard box in newspapers for insulation and foil to keep the newspaper from burning. The object is to wrap so not much tape is exposed to the inside of the box (because the adhesive will melt). I have used both free standing grills (which can tilt and give your brownies a lovely slant) and grills supported by coffee cans. The briquettes in coffee cans or under the grill in a pie tin are your fuel source. Somewhere I think I read that each briquette is worth about 30 degrees(F) of heat. Combine this figure with the heat loss from a lot of lifting of the box (grin) and heat loss from insulation, and you will get a rough idea of what you need. This is a fun project but not really applicable to backpacking!

Enjoy!

By Lynn Baird, Head, Access Services, University of Idaho Library, Moscow, ID 83844
bairdl@osprey.csr.uidaho.edu