

"THE EAGLE"

by Manda
("Talzhemir")

It's portable, and, like its parent, the world-famous *CooKit, the Eagle folds up to the size of a large book.



*CooKits by the thousands are used in many nations around the world!
<http://solarcooking.wikia.com/wiki/Cookit>

MATERIALS NEEDED:

- 11 pieces of paper or cardstock
- 11 pieces of cardboard
- 3 large glue sticks or white glue
- 1 roll aluminum foil
- 1 roll transparent packing tape
- 1 roll duct tape (any color)

TOOLS: Scissors,
Computer Printer (optional!)

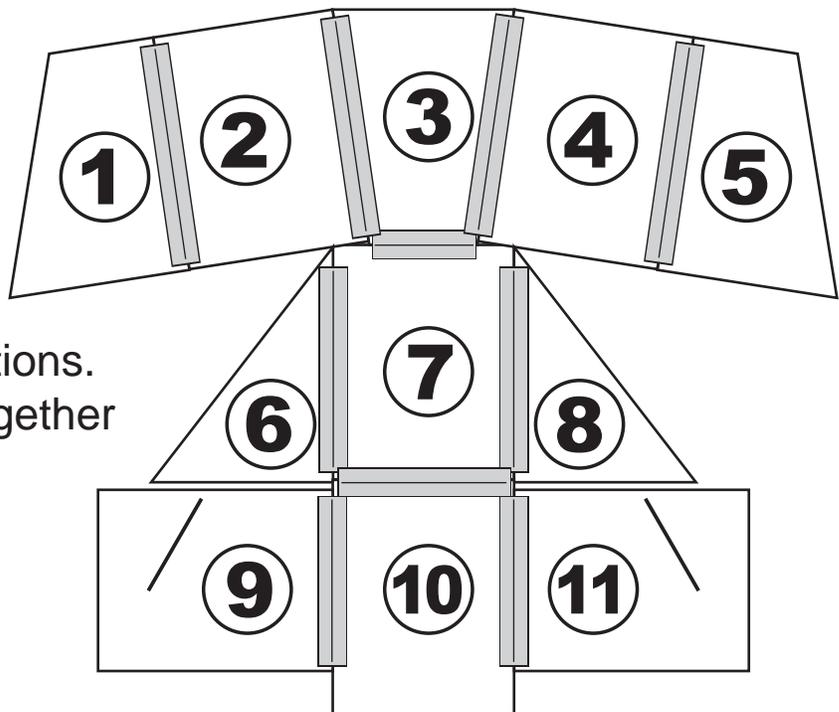
There are eleven sections.
The pieces are put together
with duct tape.

Make Your Very Own Reflector Style Solar Cooker

This .PDF file has a set of page which are intended to be printed out and glued onto heavy cardboard, then covered in foil. There are eleven sections and the pieces are held together with duct tape. If treated gently, an Eagle will last four or more years.

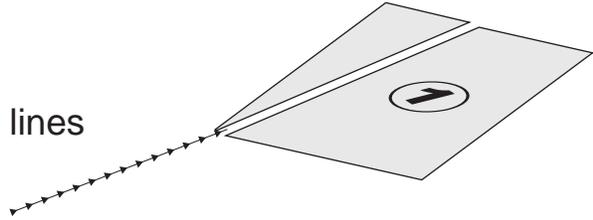
This style of solar cooker requires one heat-resistant plastic oven bag ("turkey roasting bag") and a pot (colored black) with a lid.

What makes the Eagle special is that the pattern is made of American-standard 8 1/2" X 11" paper (the kind you put into a typical printer). There is very little measuring involved, and no use of a compass to measure any angles. The pattern can also be made by connecting corners and edge marks made with a ruler.



PREPARING THE PIECES

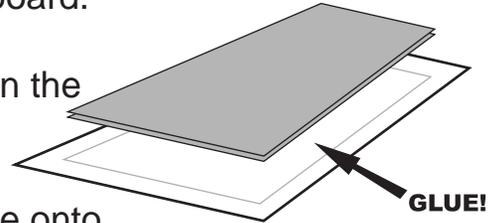
1. Print a page out. Cut along any dotted lines (made of triangles).



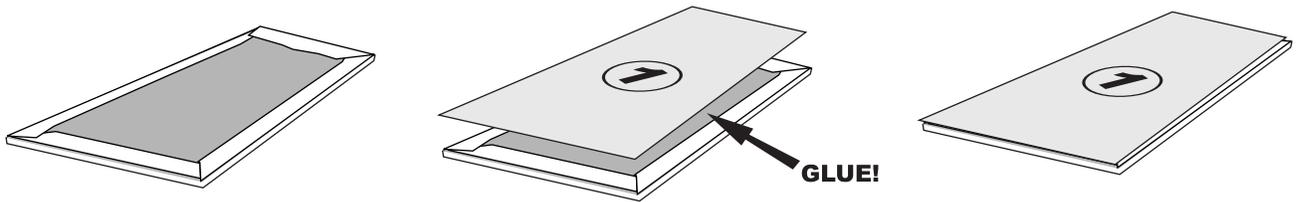
2. Use this as a pattern to cut out a piece of heavy cardboard.

3. Cut out a piece of foil roughly $\frac{3}{4}$ of an inch larger than the cardboard piece.

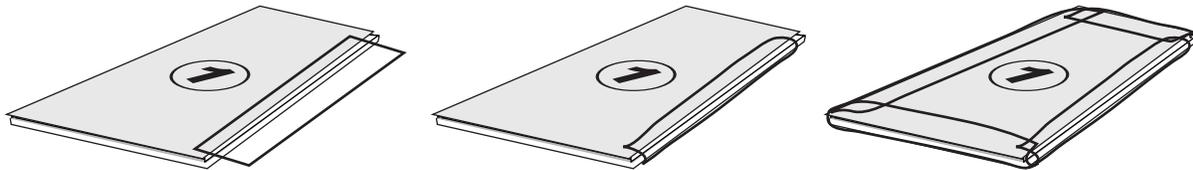
| $\frac{3}{4}$ " |



4. Use a piece of cardboard to spread ordinary white glue onto the cardboard. Cover it with the foil, shiny side out. Smooth the foil down flat and folding the edges around the cardboard. Try to keep the glue off the foil surface. Glue stick also works.



5. Wrap all edges with transparent packing tape. **Good job!** You've got ten more to go.



These refugee women from Darfur at the Iridimi Refugee Camp are making a CookKit. The Cookit is made from one single piece.

ASSEMBLING THE PIECES

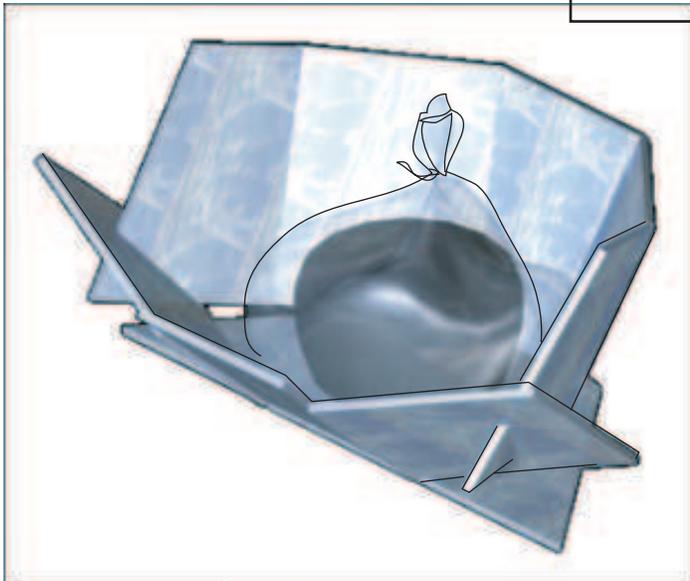
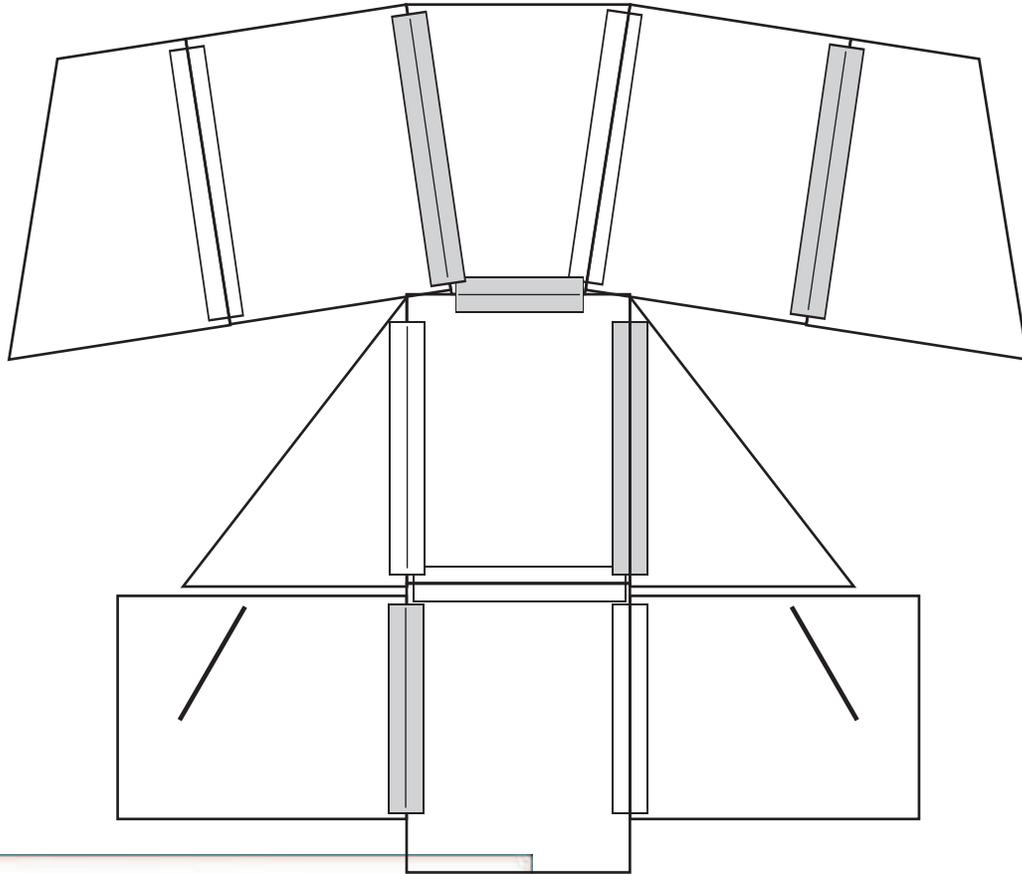
To make an Eagle that folds up better, try this arrangement of duct tape:



on the foil side



on the paper side



Solar Cookers International in Sacramento, California, developed the CookKit as an adaptation of a cooker designed by Dr. Roger Bernard in France.

3 1/2"



2

3

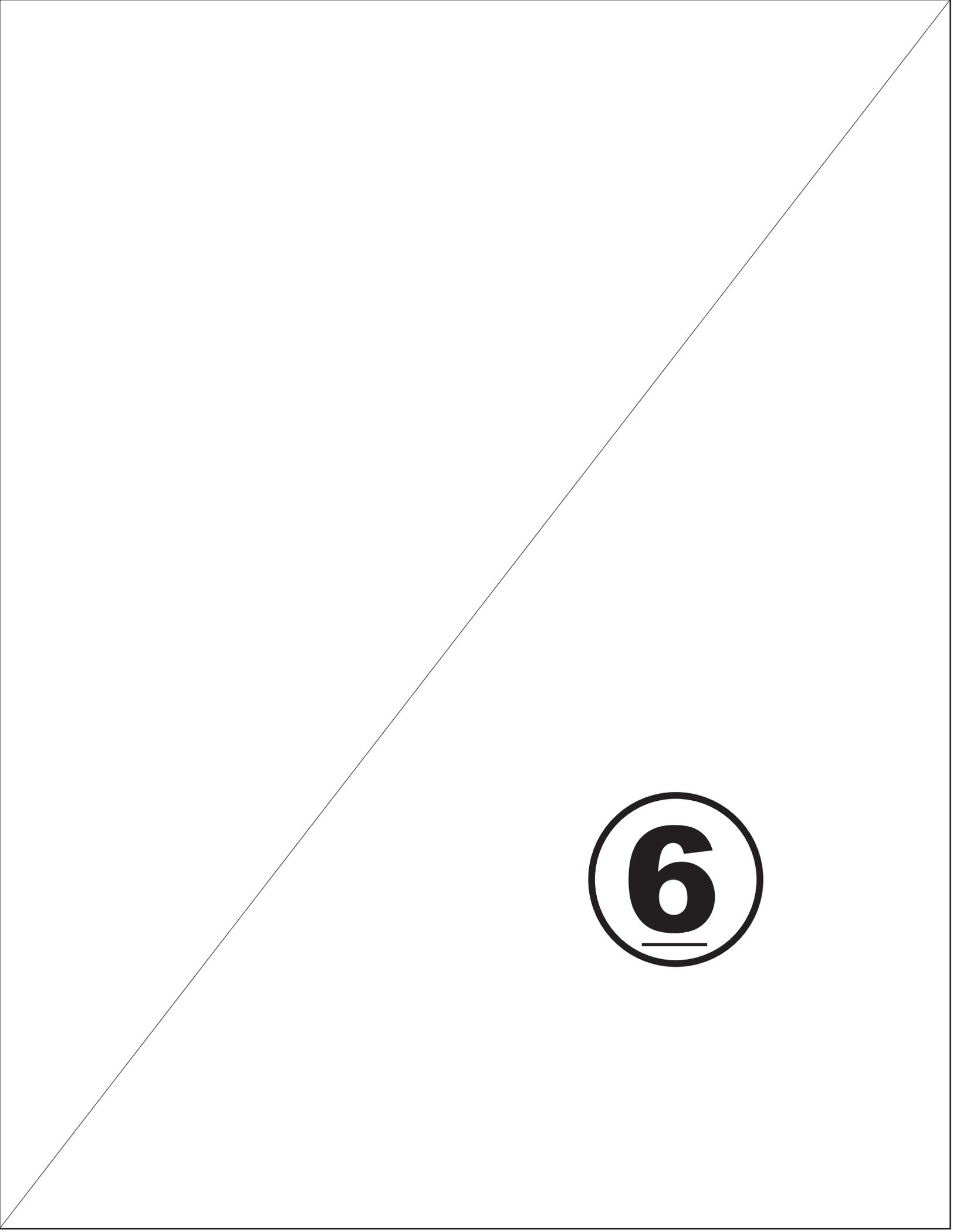
1 3/4"

1 3/4"

4

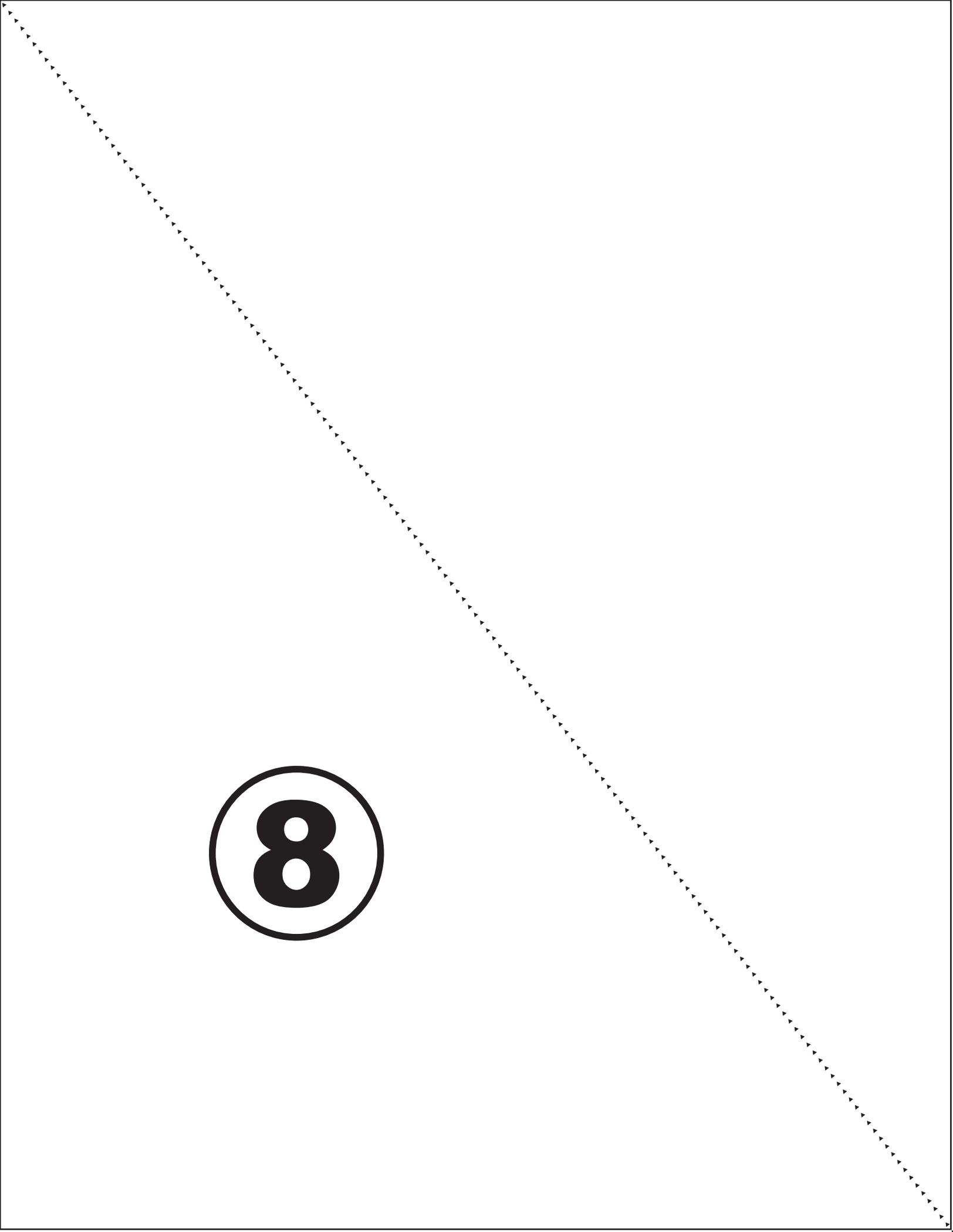
3 1/2"

5



6

7



8

2"

5"

5"

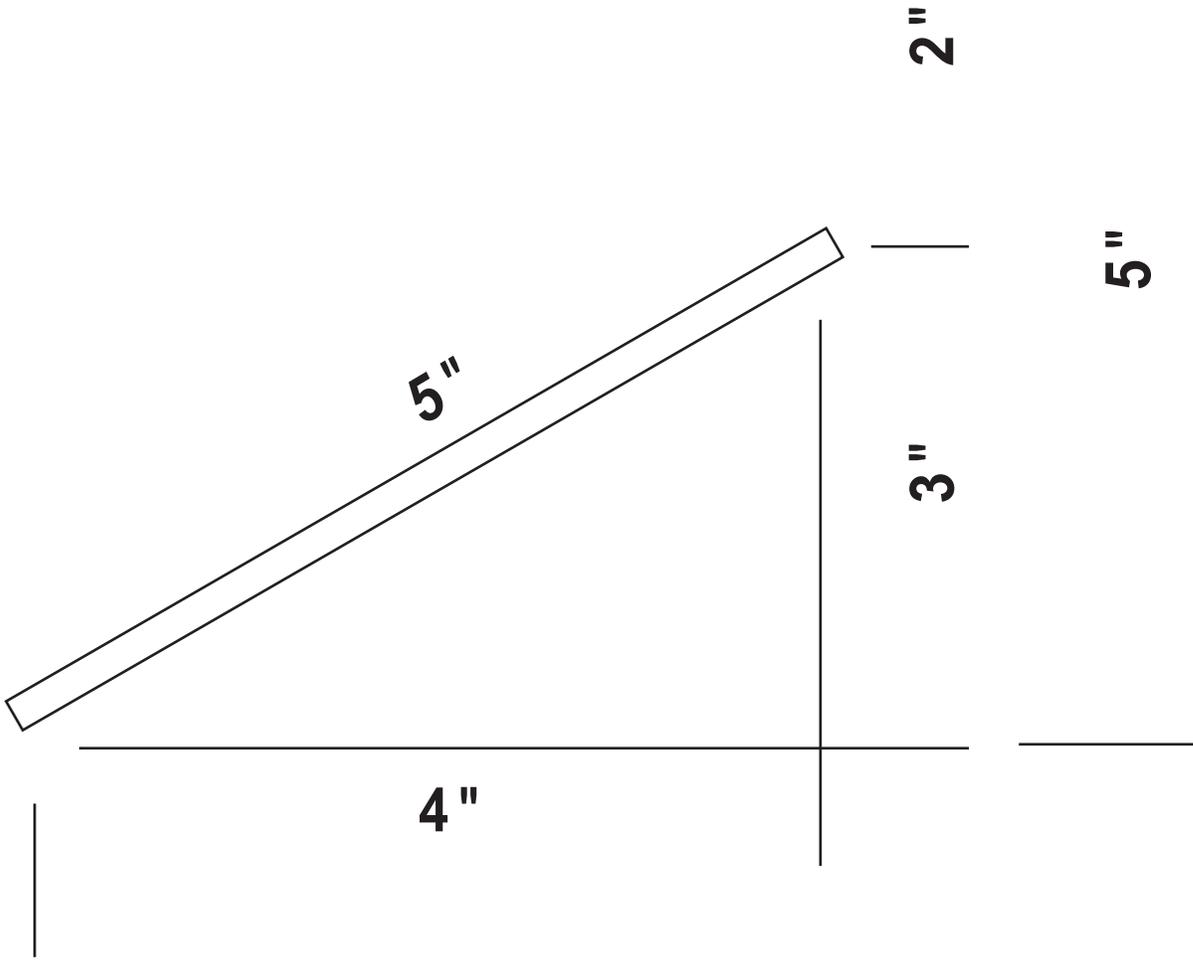
3"

4"

1/2"



10



1/2"



F.A.Q. Frequently Asked Questions about the Eagle Solar Cooker

1. "Will it work when it's cloudy outside?"

No, not really. The amount of heat you get depends directly on the amount of sunshine.

2. "What do I do if it's not sunny?"

Well, if it's a serious outing where you need to feed everyone, you should have some kind of back-up cooking method. If you're cooking at home, of course, the obvious answer is, use the stove.

3. "Can this solar cooker start a fire?"

No. Even on the sunniest days, the Eagle doesn't generate temperatures nearly that high. However, it does make food hot enough to cause a burn. Please be very careful when moving hot food around. So, do use cooking mitts!

Large solar cookers that use parabolic mirrors ("concentrators") can set things on fire. That's not surprising if you remember that they do something similar to a magnifying glass lens.

4. "Why is it called the Eagle?"

When it's unfolded, it's shaped a little bit like an eagle. Also, the Bald Eagle is the national bird of the United States, and this model of cooker was made especially for Americans.

5. "Is it safe to cook meat with the Eagle?"

It depends on the meat. The Eagle typically generates temperatures around 150F. This is hot enough to pasteurize drinking water. It's safe for pre-cooked meats such as ham and hot-dogs, or the meat in canned products like beef stew.

If you want to cook meat dishes from scratch, I suggest using a meat thermometer, just to be on the safe side. Ground beef is safe at 160F, while chicken breast is safe at 165F.

6. "I accidentally used the frosty side of the foil. Will it still work?"

Yes, but not nearly as well. If you find you've put the foil on wrong side out, just cover it with an extra layer that's right side out. I won't tell.

7. "Can I make bread or cake in an Eagle?"

No, because it's not really meant for that. Bread bakes at around 325F. It's better for rice, beans, pasta, and instant mashed potatoes.

The "oven" family of solar cookers is much better suited for baking. Sun ovens are so effective that you can roast or bake in them in the dead of winter, in Canada, when the air temperature is zero degrees F.

8. "Who invented the solar cooker?"

The first solar cooker (as we know it) was invented by Horace de Saussure, of Switzerland, in 1767.

9. "I noticed the sun moves and the Eagle doesn't seem as hot. How often should I turn it to follow the sun?"

Once per hour is good.

10. "We have plenty of natural gas where I live. Why should we bother with solar?"

Although natural gas burns relatively clean, it still emits a significant amount of carbon dioxide. Because of our willingness to save energy, a whole class of cooking, of soups, slow-cooking with crockpots and so on, has somewhat died out.

This is the kind of dish at which the Eagle excels. You can set it up in the morning, leave it out until dinner time, and there's no risk of burning it.

CHICKEN AND POTATOES

by Manda
2010

Here's a meal that a kid can prepare!

PREPARE THE POTATOES AT HOME

1. This recipe is meant for up to four people. Wash **one medium potato for each person**.
2. Carefully poke a knife deep into each one in three places.
3. Microwave the potatoes on a plate for 10 minutes.
4. Let potatoes cool for half an hour *or* rinse in cold water until they can be handled.
5. Cut potatoes into chunks. the size of the opening made by your thumb touched to your longest finger.



6. Pack potato chunks into the bottom of the solar cooking pot.

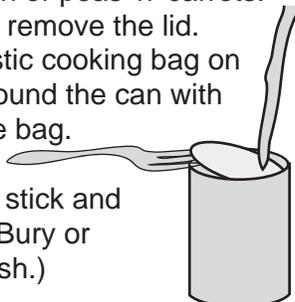
* If you're going camping, you can store this in the refrigerator overnight in a ziplock bag or in the cooking pot.

7. Chop up some **pre-cooked chicken breast, one for every two people**. Put this over the potatoes.

8. Pour **1 can Cream of Chicken Soup (12 oz)** (not the low-salt kind) over the chicken and potatoes.

TIP: Put a **SECOND** solar cooker to work heating up a veggie such as canned corn or peas 'n' carrots. Use a can opener to completely remove the lid. Leave it in the can. Put the plastic cooking bag on the solar cooker. Carefully surround the can with crumpled newspapers inside the bag.

To remove the lid, poke it with a stick and carefully pick it up with a fork. (Bury or carry out the newspapers as trash.)



You can also make this dish with a cup of cooked rice instead of potato.

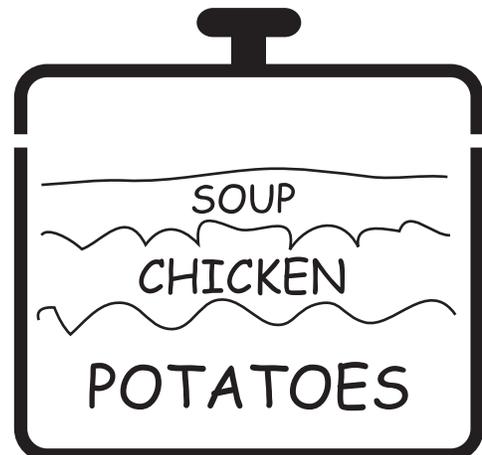
COOKING INSTRUCTIONS:

Pack into the solar cooker and set out around 2pm. Leave out in the sun for at least 3 hours. 4 is good too.

EMERGENCY FALLBACK PLAN:

If the sun fails you for some reason, set a skillet of water on the stovetop. Simmer your solar-cooking pot in this. Cook on stovetop for at least one hour. Keep the outer pan at least half filled with water.

This can also be finished over a small camping fire or camping stove.



Solar Tamale Casserole

by Manda
2010

FIRST CORNMEAL LAYER:

In a bowl, mix **1 cup of dry cornmeal tamale mix** and **1 tablespoon powdered milk**. Add enough water to make it a thick crumbly mush.

Put HALF of this lightly into the bottom of the pan.

MEAT FILLING:

This part is made on a stove-top. In a big skillet, brown **one pound of meat** (ground beef, ground chicken, or ground turkey). Leave the juices in, do not drain.

Chop up very fine and add the following:

3 teaspoons of onion,
3 teaspoons of green pepper,
1/2 teaspoon (one clove) garlic,
Optional: **1/2 a jalapeno pepper**

Stir together gently. Place in a layer over the corn meal.

SPICY SAUCE

With a fork, crush together:

1/4 teaspoon ground coriander seed,
1/4 teaspoon ground oregano
1/4 teaspoon ground cumin
1/2 teaspoon salt
3 teaspoons of tomato
1 teaspoon tomato ketchup

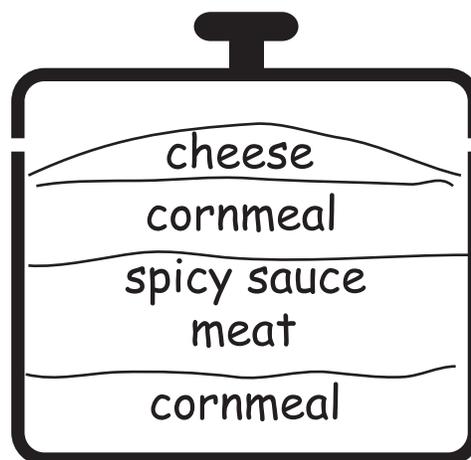
Spread this over the meat

SECOND CORNMEAL LAYER

Cover the sauce and meat with the remaining cornmeal mixture. Press down but not too tightly.

CHEESE LAYER

Cover with 1 cup shredded **Cheddar or Monterey Jack**.

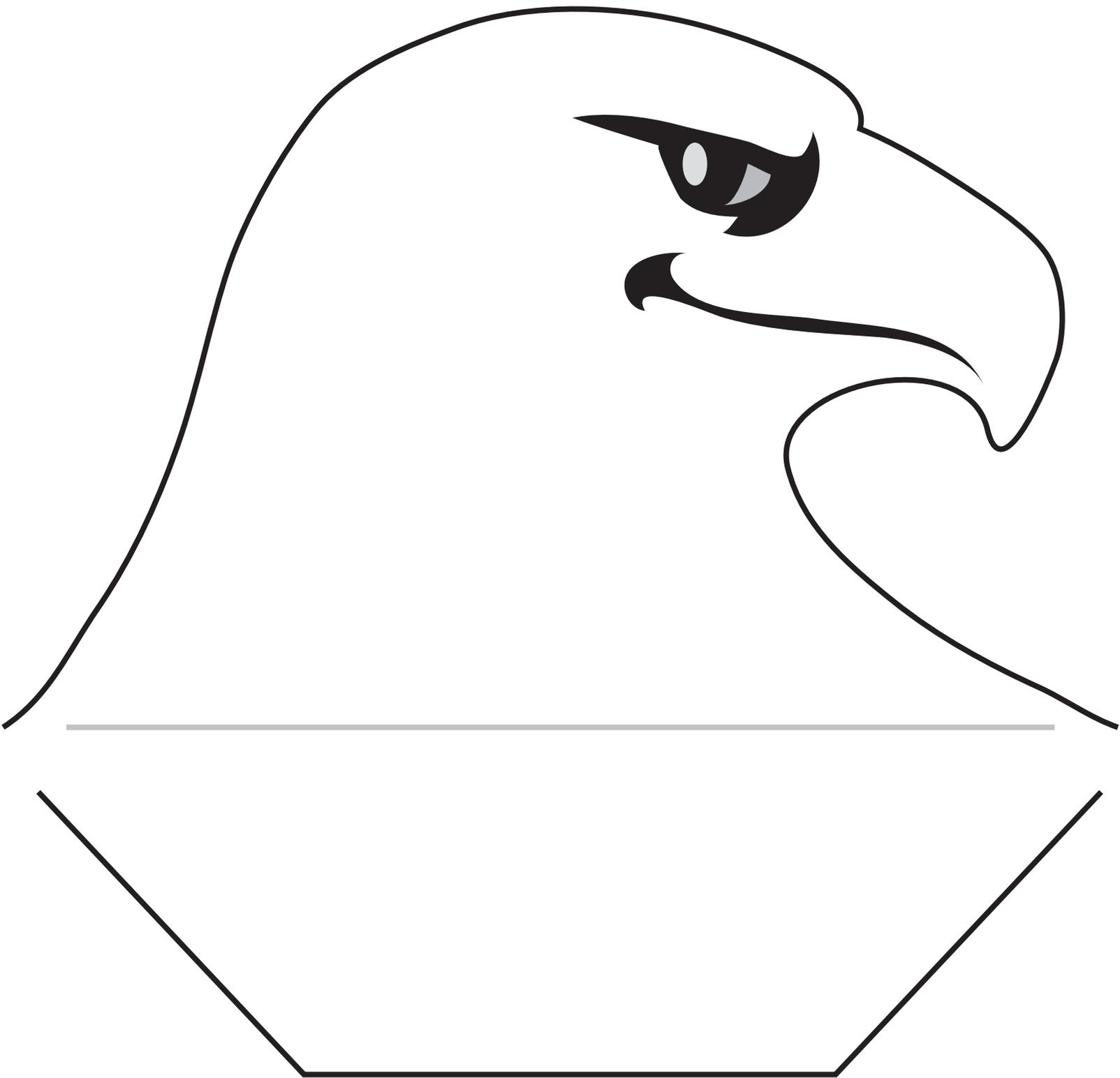


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If the sun fails you for some reason, set a skillet of water on the stovetop. Simmer your solar-cooking pot in this. Cook on stovetop for at least one hour. Keep the pan at least half filled with water.



***Does your Eagle need a head?
Construct this piece out of cardboard. Attach it to the
back of your cooker's center piece. Bend forwards to help
reflect sunlight.***

Lentils, Rice 'n' Hotdogs

(For vegetarian, leave out the hotdogs.)

by Manda
2010

Slice up and microwave 3 hotdogs for 60 seconds on high.

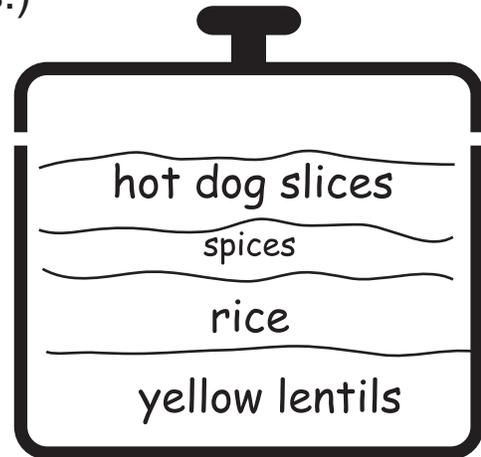
Pour **1 cup of yellow lentils** ("dal") and **1 cup of rice** into the cooker pot.

Add **2 teaspoons powdered onion**, **1 teaspoon salt**.

Cover with water and one finger joint's worth more. Put hotdog bits on top.

OPTIONAL: add 1 teaspoon Berbere

"Berbere", a traditional spice mix of northern Africa, can give this dish bright orange color and a hearty burst of flavor! American paprika is less tart, so a dash of Vitamin C (pure Ascorbic Acid Crystals) adds flavor as well as helps keep the mix extra-fresh.



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BERBERE SPICES

- 5 teaspoons paprika
- 3 teaspoon ground "long pepper"
(regular pepper will do in a pinch)
- 2 teaspoons ground foenugreek
- 1 teaspoon turmeric
- 1/2 teaspoon ground green cardamon
- 1/2 teaspoon dried ground ginger
- 1/2 teaspoon ground coriander seed
- 1/4 teaspoon cinnamon
- 1/4 teaspoon nutmeg
- 1/4 teaspoon cloves
- 2 teaspoons salt
- 1 teaspoon ascorbic acid crystals

*There are actually many recipes for "Berbere". Just about every family and every cook has their own. This one is a good general starting point.



Ethiopian Style!