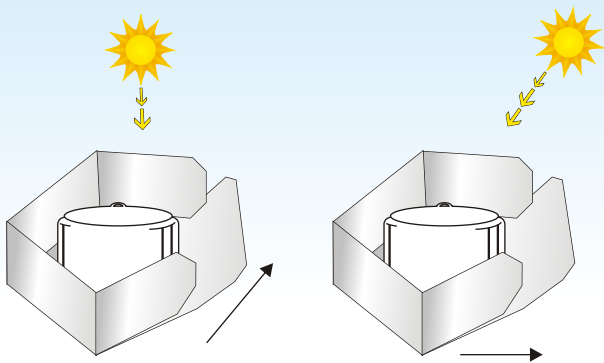
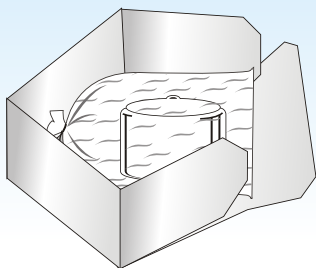
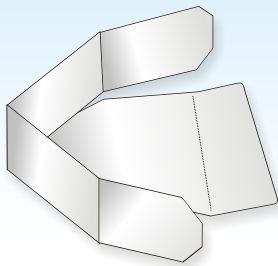
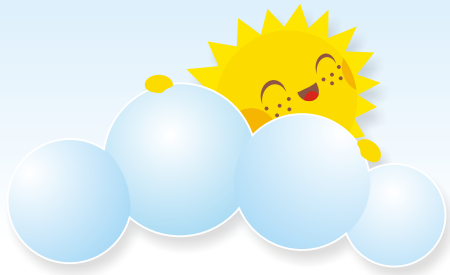


HOW TO COOK WITH SOLAR ENERGY



GETTING STARTED

- **Start early, plan ahead**

On a Sunny day two meals can be solar cooked: Start cooking by 9 in the morning for a noon meal. And at noon for an evening meal. It takes you just two minutes one to put the food out to cook, and one to bring it in after it is cooked.

- **Find a place outdoors that will get several hours of sunlight** and protected from strong wind.

- With the cooking shiny side up, pull the two side “arms” forward to fit into slots in front. If windy, put large rocks behind the sides and under the front flap.

- Put the food in the pot, the lid on the pot on a pot holder and the whole lot into a transparent plastic (PP/PE) bag.

- Put in the centre of the cookit. Close the bag with a telephone wire string or tuck the open end of the bag under the pot holder, so there is just a little air inside the bag around the pot.

- Adjust the front flap so there is a small shadow under it (low when the sun is low, higher when the sun is high).

- Now the food will cook with no further attention. It is OK to quickly check the food once, but it won't burn or need stirring.



HOW DO SOLAR COOKERS WORKS?

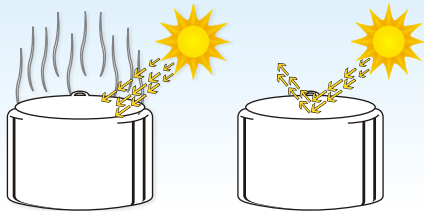
1



SUNLIGHT is the fuel.

A solar cooker needs an outdoor spot that is sunny for several hours. Solar cookers don't work at night or if the day is cloudy.

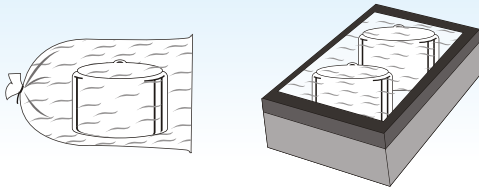
2



DARK SURFACES get very hot in sunlight.

Food cooks best in black pots with tight lids to capture the heat.

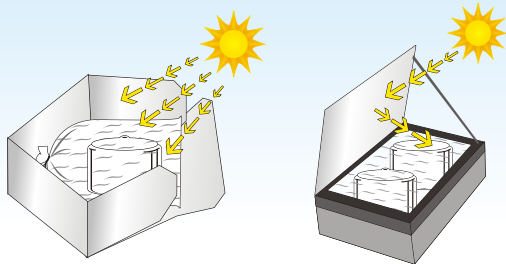
3



A TRANSPARENT HEAT TRAP

Around the dark pot lets in the sunlight, then holds in the heat. This is a plastic bag or large glass bowl (cookit) or an insulated box with a window (box cooker).

4



SHINY REFLECTORS

Capture extra sunlight from an area three times as big as the pot.

SOLAR COOKERS WORK TEMPERATURE

IDEAL FOR COOKING, NOT BURNING FOOD

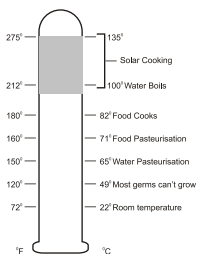
People have cooked with fire for millennia, having to watch and stir food to protect it from burning and being wasted sticking to the pot.

FOOD SAFETY

Germs, viruses and parasites that cause illness when eaten are killed at 65°C (150°F). This is called pasteurization. Food cooks at 80-90°C (180-195°F), so when it is fully cooked it is also free of disease

organisms. Most solar cookers have gentle cooking temperatures just above this, so foods keep more of their flavour, moisture, and nutrients, and rarely burn or get overdone. Cooking gently for many hours makes meats especially tender.

Soon after food is put into the solar cooker in the sun, temperatures quickly rise past 49°C (120°F), when the pot is uncomfortably hot to touch and any existing germs stop growing.



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COOKING SPEED FACTORS

FASTER

SLOWER

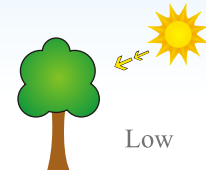


High in the sky

THE SUN

1

To cook under these conditions you may need to preheat food over a fire or other stove before putting into solar cooker or partly cook it in the cookit then quickly finish it over a fire.



Low



High

WEATHER

2



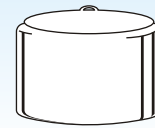
Cloudy & Windy



with lids black, small thin walls

POTS

3



white or shiny, large thick walls



Small Quantity



Small Pieces

Little or no water added

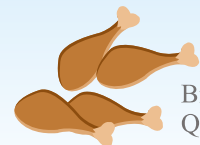
FOOD

4



Big Pieces

Mostly water (soups, beverages)



Big Quantity

As always, if any cooked food cools to room temperature for several hours it can spoil. If it gets cloudy or after the sun sets, food keeps hot for only a short while in the cookit, upto 1-2 hours in the solar box. However, any cooked food that cools off and stays at room temperatures for 4 or more hours should be heated again to full cooking temperatures to destroy any possible food poisoning.

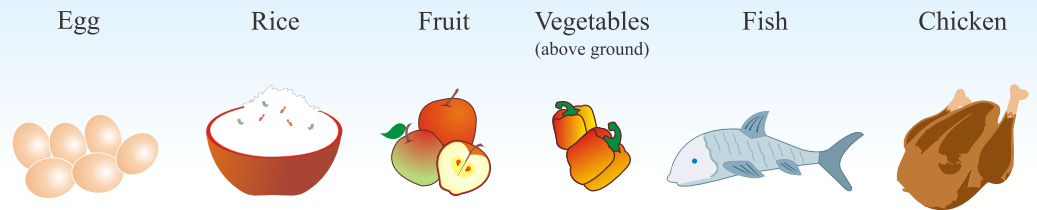
Measuring the air temperature inside the solar cooker with an oven thermometer gives only a rough measure of food temperatures. After an hour or more, temperatures inside the cooking pots are generally hotter than the air temperatures outside the pot. The pot lid is usually the hottest place.



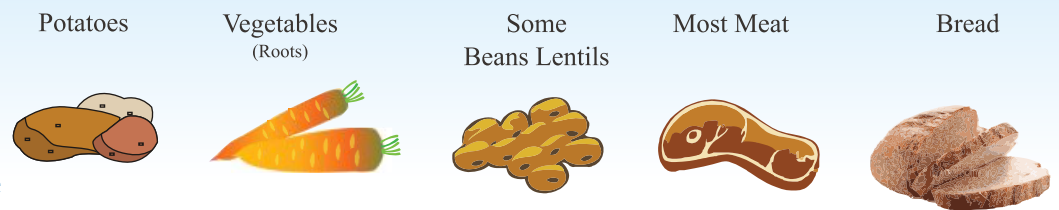
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COOKING TIMES

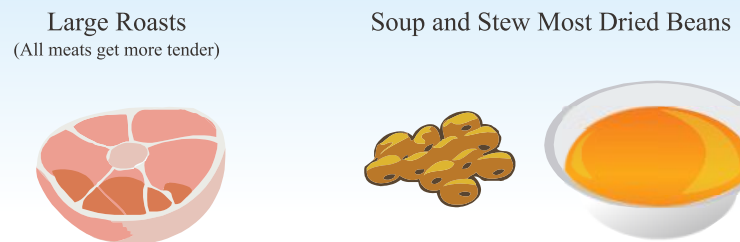
1 Easy to cook 1-2 hours



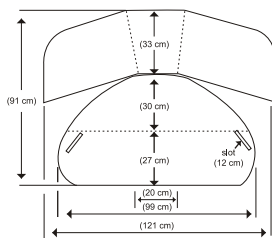
2 Medium Cooking Time 3-4 hours



3 Hardest to Cook 5-8 hours



“Cookit” Dimension for Cookit



Solar cooking allows great flexibility, extra cooking won't hurt the food. Food seldom overcooks and doesn't need stirring. Food cook fastest when the sun is highest (midday). Solar cookers do NOT work for breakfast, on cloudy days or for cooking after sunset.

Usual cooking times for 4 pounds (2kilos) of food on a Sunny day:

