

# FUN IN THE SUN



**RENEWABLE ENERGY**  
THE INFINITE POWER  
OF TEXAS

## PROJECTS TO DO AT HOME

### FUN IN THE SUN: PROJECTS YOU CAN DO

*Be safe:* With any project involving the sun, be careful not to burn yourself. Wear sunscreen, sunglasses and a cap. Use pot holders for handling hot objects. Ask an adult to help you.

### MAKING A SOLAR COOKER

*Materials:* clean pizza box (ask for one free at your favorite pizza restaurant); aluminum foil; black construction paper; clear plastic or oven bag; wooden dowel or straw; glue, tape, scissors, ruler, marker

Draw a one-inch border on all four sides of the pizza box top. Cut along three sides, leaving the line along the back of box uncut. (See Figure 1.) Make a flap by gently folding back along the uncut line to form a crease. Cut a piece of aluminum foil to fit on the inside of the flap. Smooth out any wrinkles and glue into place. Measure a piece of plastic to fit over the square hole in the box top created by your flap. The plastic should be cut larger than the hole so it can be taped to the underside of the pizza box top. Be sure the plastic is tight so that air cannot escape from the oven interior. (See Figure 2.) Cut another piece of aluminum foil to line the inside bottom

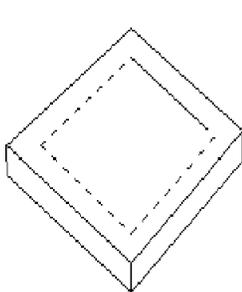


Figure 1

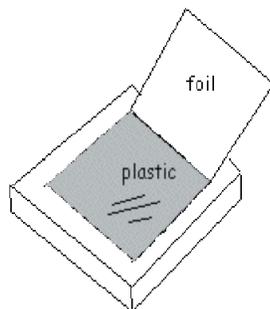


Figure 2

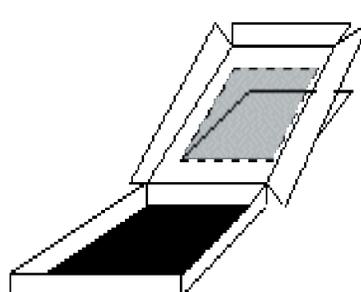


Figure 3

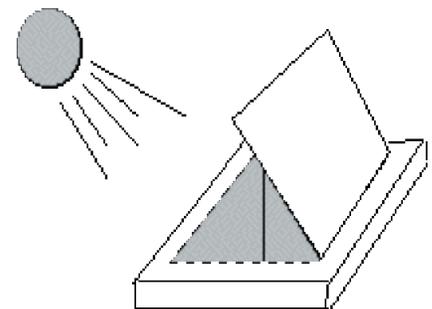
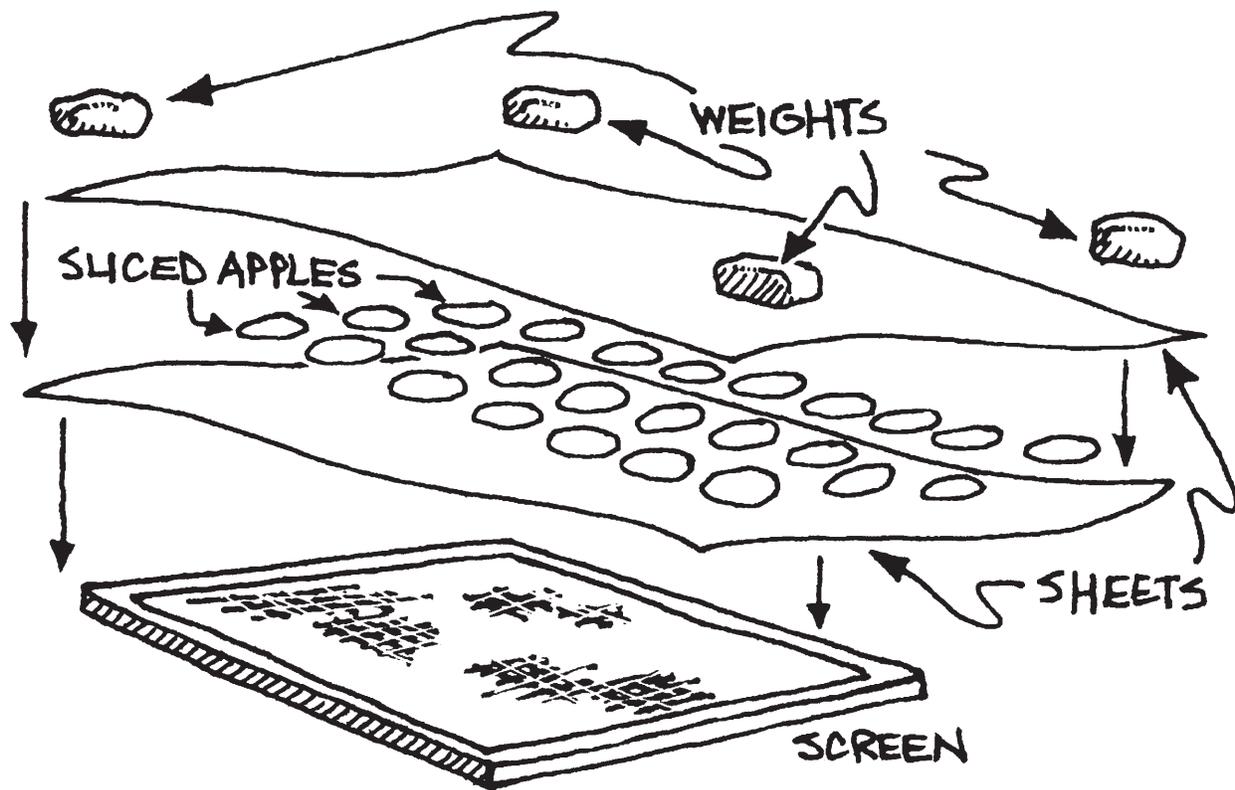


Figure 4



**SUN DRIED FRUIT** Dry fruit for snacks, just like your grandparents did.

of the pizza box. Glue it into place. Cut a piece of black construction paper the same size and tape it over the foil. (See Figure 3.) Close the pizza box top and prop open the flap with the dowel or straw. Turn the cooker toward the sun and adjust the flap until the aluminum foil reflects the most sun through the plastic into the oven interior. (See Figure 4.)

You are now ready to cook! This works best if you do your cooking at noon. Remember to use potholders and start with food that is as close to room temperature as possible. It will take less time to cook.

Try making nachos by melting cheese on tortilla chips. You can also try s'mores by using the cooker to melt chocolate pieces and marshmallows between graham crackers.

## **DRYING FRUIT WITH THE SUN'S HELP**

Materials: a window screen; a clean, dry bed sheet, cut into pieces; one dozen apples

Wash and peel about one dozen apples. Remove the seeds and slice thinly. Sprinkle Fruit Fresh® or powdered

vitamin C on both sides so your fruit won't turn brown. Lay one piece of the bed sheet on the screen. Lay the apple slices in a single layer on the bed sheet, making sure the pieces don't touch. Cover with the other piece of bed sheet.

Put this in a safe place where animals cannot get to it, like on a table outdoors. Weigh the cloth down with something heavy and clean.

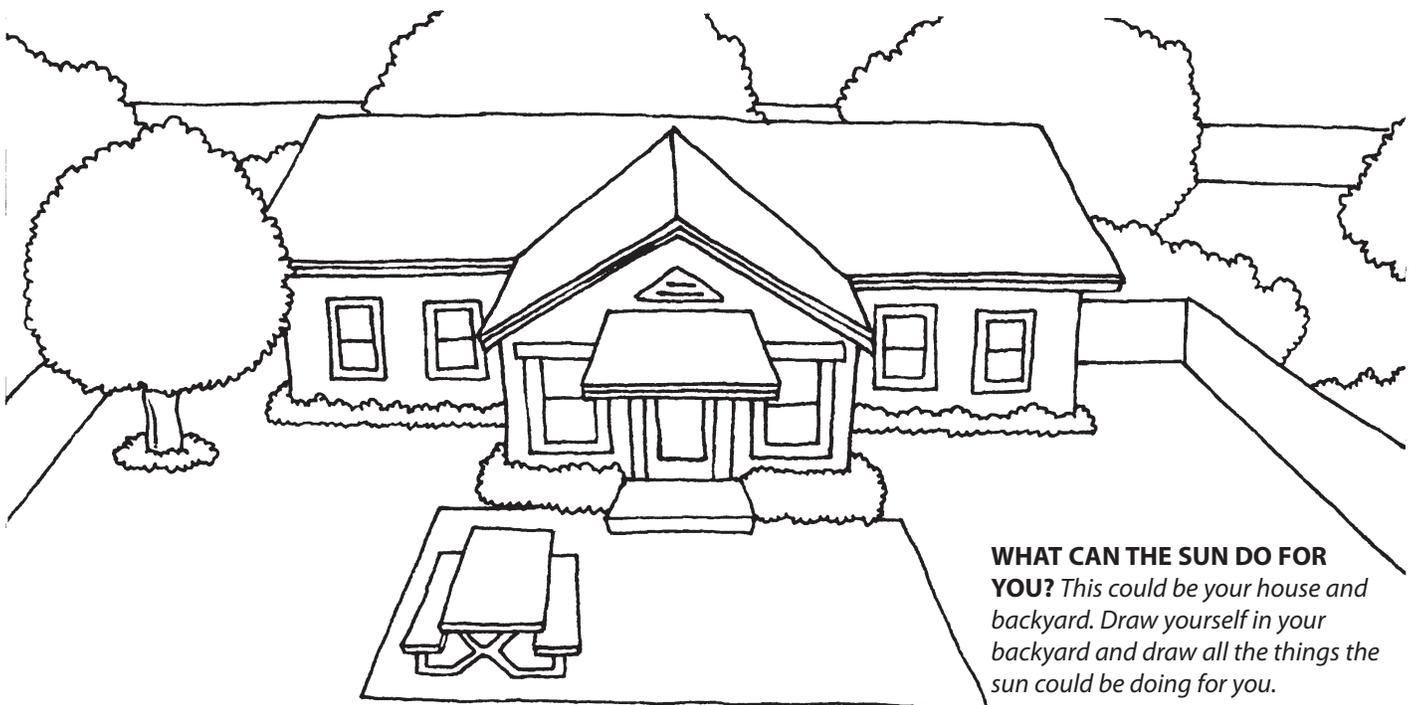
Check the apples every day. When they are dehydrated and light brown, put them in an airtight container. They will keep for a long time and make a great snack.

## HEAT FROM CONCENTRATED SUNLIGHT

Materials: a soft lead pencil; a scrap of soft wood (like a 2-inch by 4-inch piece of lumber); and a magnifying glass

Use the pencil to draw a picture on the wood with dark lines. Go outdoors. Hold the design so that it faces the sun. With your pencil drawing as a guide, hold the magnifying glass in front of the drawing so that it focuses the light on the lines you have drawn.

Watch carefully and the wood will start to smoke. Move the magnifying glass around so that the point of light burns a line over your pencil line.



**WHAT CAN THE SUN DO FOR YOU?** This could be your house and backyard. Draw yourself in your backyard and draw all the things the sun could be doing for you.

## HELPFUL ORGANIZATIONS

Renewable energy education:

### TEXAS SOLAR ENERGY SOCIETY

P.O. Box 1447

Austin, TX 78767-1447

(512) 326-3391 or (800) 465-5049

[www.txses.org](http://www.txses.org)

Sources of inexpensive solar cookers and how to use them:

### SOLAR COOKERS INTERNATIONAL

1919 21st Street, #101

Sacramento, California 95814

(916) 455-4499

[www.solarcooking.org](http://www.solarcooking.org)

Global education in various appropriate technology methods:

### SOLAR ENERGY INTERNATIONAL

P.O. Box 715

Carbondale, Colorado 81623

(970) 963-8855

[www.solarenergy.org](http://www.solarenergy.org)

Research and education on uses of solar energy and energy efficiency:

### ENERGY CENTER

University of Texas, El Paso

P.O. Box 68-660

El Paso, Texas 79968

(888) 879-2887

[www.wattwatchers.utep.edu](http://www.wattwatchers.utep.edu)

### AMERICAN SOLAR ENERGY SOCIETY

2400 Central Avenue, Ste. G-1

Boulder, Colorado 80301

(303) 443-3130

[www.ases.org](http://www.ases.org)

## RESOURCES

### FREE TEXAS RENEWABLE ENERGY INFORMATION

For more information on how you can put Texas' abundant renewable energy resources to use in your home or business, visit our website at [www.InfinitePower.org](http://www.InfinitePower.org) or call us at 1-800-531-5441 ext 31796.

Ask about our free lesson plans and videos available to teachers and home schoolers.

### ON THE WORLD WIDE WEB:

El Paso Solar Energy Society:

[www.epsea.org/cook.html](http://www.epsea.org/cook.html)

Fun things to do with solar power:

[www.sunwindsolar.com/solar/solar\\_energy\\_uses.html](http://www.sunwindsolar.com/solar/solar_energy_uses.html)

The solar cooking archive:

[www.solarcooking.org](http://www.solarcooking.org)

### PUBLICATIONS:

#### HOME POWER MAGAZINE

P.O. Box 520, Ashland, Oregon 97520 USA

(800) 707-6585 [www.homepower.com](http://www.homepower.com)

**SAVING ENERGY.** Jacqueline Dineen, Raintree Steck-Vaughn, 1995.

#### HOW DO WE KNOW ENERGY EXISTS?

Terry Jennings, Raintree Steck-Vaughn, 1995.

#### EARTH WORDS/ A DICTIONARY OF THE ENVIRONMENT.

Seymour Simon, Harper Collins, 1995.

#### ENERGY: SIMPLE EXPERIMENTS FOR YOUR SCIENTISTS.

Larry White, Millbrook Press, 1995.

#### OUR ENDANGERED PLANET. AIR.

Lisa Yount, Lerner Publications Company, 1995.

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