



# KIDS for the BAY

A Project of **Earth Island Institute**

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**Mandi Billinge**, Executive Director/Founder

## Experiments and More

### Spectacular Solar Oven

#### Activity Summary

Learn how to cook your own s'mores using energy from the sun!

#### Directions

1. Begin by laying out all of your supplies, and check in with an adult for supervision or help when needed.
2. Cut a three-sided flap in the top of the box, leaving a 1 inch margin around the edge. Do not cut on the back edge that connects to the rest of the box. The flap should be able to lift up and down.
3. Cover the inside of the flap with aluminum foil. Cut the aluminum foil to fit the size of the flap and secure it using the glue stick.
4. Over the hole that was cut in the top layer of the box, cut a piece of plastic wrap to fit the size of the hole, and secure it with tape (can either secure it on the top side of the box or from the inside).
5. Lift up the entire top portion of the box so that you have access to the inside. Line all of the edges of the inside of the box with aluminum foil and secure with a glue stick.
6. On the very bottom layer of the box, cover the entire surface with black construction paper and glue in place. The black paper helps absorb heat from light, while white paper reflects or bounces off a lot of the heat!
7. Decorate the outside of your box with any art supplies!
8. Now add your s'mores to the inside of your box (but leave the top graham cracker off so the chocolate can melt). Place them on a napkin inside the box to avoid a melted chocolate mess!
9. Close the top layer of the box. Lift up the aluminum flap and prop the flap up with a pencil or a stick. You can use tape to secure if necessary. This will allow the sun to reflect off the aluminum foil into the box to absorb the heat from the sun.
10. Place your spectacular solar oven somewhere facing the sun and wait for your s'mores to cook! Check on your solar oven every five minutes and when the chocolate is nice and melted, take your s'mores out and enjoy! Be sure to share a s'more with a friend or family member.



#### Location

You can assemble the solar oven indoors or outdoors, and then take your solar oven outside to a sunny spot to cook your s'mores!

#### **Share your experience with us!**

Email [kidsforthebay@gmail.com](mailto:kidsforthebay@gmail.com) to share photos, videos, comments or questions.

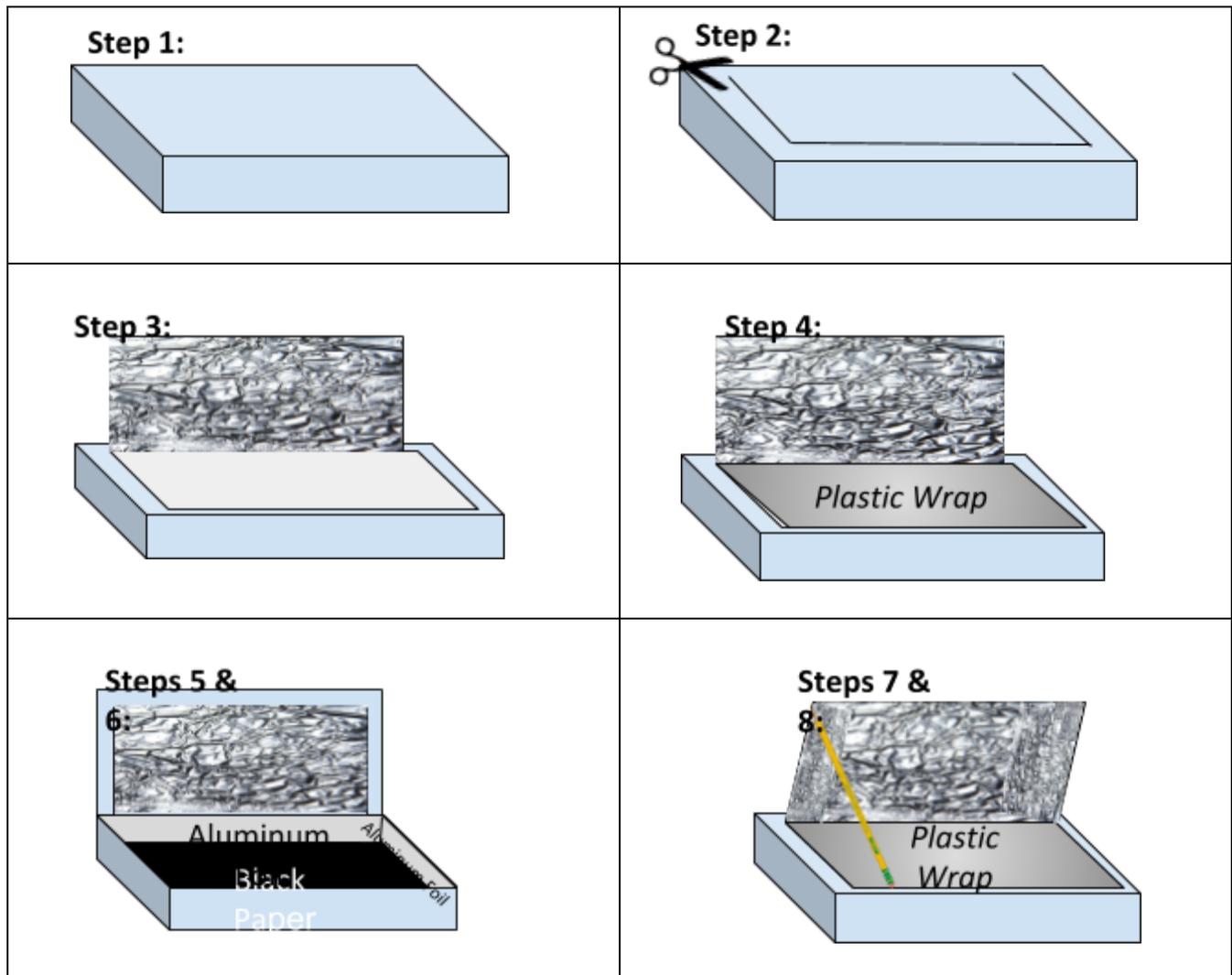
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## Supplies

- A cardboard box (a box with a flap that can open and close is preferred, like a shoe box or a pizza box)
- Aluminum foil
- Plastic wrap
- Black construction paper
- Tape
- Gluestick
- Pencil, skewer, or stick (for propping up the flap)
- Scissors
- Markers, pencils or other art supplies
- Graham Crackers
- Marshmallows
- Chocolate
- Napkin or plate

## Additional resources and related activities

- Try our [Shadow Tracking](#) activity to watch how the sun moves throughout the day:
  - <http://kidsforthebay.org/at-home-activities/every-day-with-nature/>
- Video Directions: <https://www.youtube.com/watch?v=kBmy-Aelzp0>



## Share your experience with us!

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