

CARDBOARD BOX OVEN

MACKENZIE RIVER Environment & Outdoors



THE ADVENTURE:

It's time to harness the power of the sun to cook your next meal! Build a solar oven using two cardboard boxes and some aluminum foil, and cook anything you would bake in your oven at home. A window on top of the box lets in sunshine, adding heat to the oven. Then the aluminum foil reflects this heat around the inside of the box, raising the temperature and cooking your cake, turkey or frittata.

If the sun isn't shining, you can use charcoal to heat up your oven from the inside.

DO:

- Completely cover the inside of your boxes with aluminum foil. The outer box provides extra insulation and reflects escaping heat back in.
- Create a rack on which to place your food while it bakes.
- A window on top of the oven will let in sunshine, creating a solar oven.
- Or, if your box oven will use charcoal briquettes, a window will let you keep an eye on your food as it cooks.

PLAN:

- What materials will you need to make your box oven?
- What will you use to heat your box oven?
- How will you insulate your box oven?
- What do you want to cook in your box oven? Where will you get your supplies?
- What kitchen tools will you need?
- Where will you put your box oven while your food is cooking?

REVIEW:

- What do you know now that you did not know before?
- How is your cardboard oven similar to the oven at your house? How is it different?
- How could using a cardboard oven change your environmental footprint?
- What elements of STEM were in this adventure? Science? Technology? Engineering? Mathematics?
- What did you like about this adventure? What did you not like? How would you do this adventure differently?



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ONLINE RESOURCES:

- Building a solar cooker
- How to: Make a Cardboard Box Oven
- Cooking with a Cardboard Box Oven
- How Does Solar Cooking Work?

SAFETY TIP:

- Your box oven will get very hot. Do not leave it near grass or other dry materials that could catch fire. Always use oven mitts when checking on your food or the oven.
- Because the inside of the box oven will get very hot, do not use anything that could melt or give off fumes on the inside of the box.

MATERIALS:

- Cardboard boxes
- Aluminum foil
- Oven bags
- Cooking rack
- Oven mitts
- Charcoal briquettes



Image from www.instructables.com



Image from climatekids.nasa.gov

