

Building and Testing a Solar Oven

Re-Energy
Learner Worksheet
Grade Level 7-12



Name: _____

What To Do

- Record your observations and the temperature indicated on the oven thermometer. Make sure you place the thermometer inside the plastic oven bag.
- While you are waiting to record your temperature data, continue to answer the questions listed below the data and observation chart.

Data and Observations Chart

Record your observations for each temperature interval.

	Temperature at 5 minutes	Temperature at 10 minutes	Temperature at 15 minutes	Temperature at 20 minutes
Black aluminium backing tin				
White aluminium backing tin				

Questions

Use the solar oven and the background information to determine the answers to the following questions. You may need to do additional research after constructing and testing the solar oven.

1. Describe the purpose of the solar oven.

2. List the specific materials needed to make the solar oven.

3. List the steps involved in making a solar oven.

4. How does the design of the solar oven allow the sun's visible light energy to be collected?

5. How does the design of the solar oven allow collected heat energy to be insulated?

6. What angle or position is the most effective for generating heat in this solar oven?

7. What aspects of this design would you change to make an oven that cooked faster or hotter?

8. Besides preparing food, how might a solar oven like this one be used around the home?

9. What are the limitations of a solar oven? Describe some way to overcome these limitations.
