

Skills Worksheet

Critical Thinking

A Solar Solution

Dear Mr. Burns,

I have an idea for a new product called the Eco-Cook. It's a portable, solar-powered cooking device that works like an oven. The oven's design includes these features:

- *The oven will be as big as a bread box and no heavier than a laptop computer.*
- *The oven will have a glass top set at an angle to catch the sun's rays.*
- *The inside of the oven will be a dark color to absorb solar heat.*

If you think my idea will work, I will make the Eco-Cook right away without wasting time and money on testing and making models. Please write back soon with your opinion.

—Ms. Sunny Reyes

USEFUL TERMS

portable easily carried or moved

UNDERSTANDING CONCEPTS

Help Mr. Burns evaluate the Eco-Cook.

1. Why might the description of the oven's length and width be confusing for someone trying to build this appliance?

2. What would be a better method of describing the dimensions of the oven? Explain your answer.

Critical Thinking *continued*

COMPREHENDING IDEAS

3. What are two variables that could affect how well the oven will work?
Explain your answer.

AGREE OR DISAGREE

4. Would building a model oven be a waste of Ms. Reyes's time and money?
Explain your answer.

UNDERSTANDING CONCEPTS

5. How would knowledge of physical science help Ms. Reyes design this invention? Explain your answer, and provide examples.
