



HANSEL AND GRETLE'S SOLAR POWERED OVEN

Lab Notes

Why won't a hotdog on a plate in the sun cook?

Why should the oven be angled towards the sun and not facing straight up towards the sky?

Does covering the opening of the oven make difference in the temperature and/or the time it takes to cook the hotdog?

Does the weather make a difference in the temperature of the oven? (Use the OBSERVATIONS AND DATA table on the next page to record your findings.)

OBSERVATIONS AND DATA:

Use a thermometer to measure the temperature inside the oven. Try cooking the hotdog in different weather. Record the weather conditions in a variety of tests to cook the hotdog and make note of your observations below.

Weather conditions	Outside temperature	Temperature inside the oven	Time needed to cook hotdog

Discoveries:

Your solar oven works because as sunlight enters the oven, it is absorbed, converted to heat, and then trapped. The light and heat collect and bounce around inside the oven as they are reflected against the aluminum foil. The trapped heat energy builds, increasing the temperature inside, which allows you to cook. The more light and heat you can collect directly from the sunlight, the more effective your oven becomes.