Your School Logo Here!

PBI Explorers,

(YOUR SCHOOL NAME HERE) is committed to teaching sustainable environmental practices to both adults and youth in (YOUR CITY NAME HERE) As a part of our (YOUR EVENT HERE), we will be hosting a booth highlighting solar cooking. We will do this in conjunction with raising money for Solar Cookers International, and institution that provides solar ovens for families in poverty to promote sustainable cooking practices in third world countries. Educational Materials and a model solar cooker will be on display to teach the audience about the global impact of solar cooking and the science and math behind it. We will also be serving s'mores made in our ovens! To double our impact, we will be sharing our project with other students working toward the same goal all over the world, using the iEARN global collaboration website. We need your help!

How can we use our knowledge of math and science principles to create a solar oven along with educational materials to inform your peers about solar cooking to present at a fundraising booth for Solar Cookers International?

There is an incredible amount of science and mathematics involved in the creation and use of solar ovens. For this three-day project, you must:

- Build a useable model of a solar cooker that will allow you to demonstrate the oven in action at the booth.
- Use mathematics and technology to demonstrate the rate of heating for the oven
- Develop educational materials that contain the following
  - Professional graphic design standards
  - The science information that explains how heat is transferred through convection, conduction, and radiation.
  - Mathematical explanation of procedures used to calculate the rate of temperature increase for solar oven
  - A graph that shows the rate of temperature increase for your oven in real world situation
  - A promotion for Solar Cookers International and their work in developing countries
- You will be assessed as you give a 3 minute presentation that explains the educational content in your materials, describes how your oven works, and tells a story about the work of Solar Cookers International.

We look forward to your submissions and will choose the best presentation to be used at the booth in a few weeks. Thanks for helping promote science/mathematics education as well as your school!

Created 2019 by Dr. Kate York and Katie Donaldson