



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

<b>Name(s)</b> <b>Adam Stanford-Moore</b>	<b>Project Number</b> <b>J1025</b>
<b>Project Title</b> <b>A Stove for a Better Tomorrow</b>	
<b>Abstract</b> <b>Objectives/Goals</b> It is very important in poor countries for people to have an efficient way to cook because of the scarcity of fire wood. One way to save fire wood is to invent new kinds of stoves that use local materials. The goal of this science fair project is to compare the time it takes to boil two cups of water on five different stove designs. Before the experiment it was predicted that the mud-brick rocket stove would boil water the fastest because of its insulation and concentration of the flame. <b>Methods/Materials</b> Five different stoves were made with different designs and materials. They included a modern house stove, a mud-brick rocket stove, a red-brick rocket stove, a 3-stone stove, and a 3-sided stove. The five different stoves boiled water with the same pot and 2 cups of water for each trial. During each trial the stove's fire was fed with the same amount and kind of wood (excluding the modern house stove which is gas powered). <b>Results</b> The red-brick rocket stove consistently boiled the water more quickly than all of the other stoves. The 3-sided stove consistently boiled water more slowly than all of the other stoves. <b>Conclusions/Discussion</b> The design of a stove has an important role in the amount of time required to boil water. Designs with good insulation and good flame concentration boil water the fastest. It was also noted that red-clay bricks allowed for better insulation than mud bricks.	
<b>Summary Statement</b> This project investigates the affect of traditional village stove design on the time it takes to boil water.	
<b>Help Received</b> Parents helped me gather materials and supervised me building the stoves' fires in our driveway.	