Rocket Stoves

Here's how a rocket stove works: Air enters the hole in front. The air gets warmed up as it enters, so the fire burns better. The fuel wood gets warmed up as you push it into the main fire. When it gets to where the fire is, it is ready to burn hot and fast. The flames come out the top hole and heat the cooking pan.



Rocket stoves were developed based on calculations by Dr. Larry Winarski of the Arpovecho Institute. Dr. Winarski wanted to develop a high-technology stove that was efficient, cheap, and easy to make. That way, people in developing countries could have the best stove possible for very little money.



A rocket stove made out of concrete blocks. Fuel wood is stored in the bottom. This stove has two concrete bricks on the top as a shelf for cooking tools or hot pans.

Why Use a Rocket Stove?

Rocket stoves are safer than open fires. A rocket stove is designed to produce a good hot fire using not much firewood. Rocket stoves produce less smoke than a traditional cooking fire.

In countries where cooking is done over wood fires, a rocket stove can save firewood and reduce air pollution. In the Bay Area, a rocket stove could be useful in case of an emergency.

How to light a rocket stove

To light a rocket stove, crumple up some paper and push it down in the hole at the top. Drop in a handful of twigs and small pieces of wood that are about this size of match sticks. Drop in some larger twigs and pieces of wood that are about the size of your little finger. Finally, drop a lighted match in.

Look through the front hole. When you can see that the fire is going well, push 4-6 pieces of fuel wood into the flame.

Once the fuel wood is burning, keep watching it. Push it into the stove as it burns so that hot flames come right up out of the top hole—you want the flames to hit bottom of the pan you're cooking in.

Always remember to stay safe around fire. When you're learning how to use a rocket stove, have an adult near by to help you out. And keep a bucket of water near by, too, just in case.



How To Cook with a Rocket Stove

When using a big concrete block rocket stove, you'll want to have two people. One person is in charge of the fire, making sure there's just enough wood burning, but not too much. Usually, four or five sticks of wood will be all you'll need. This person keeps pushing the wood into the stove so that it burns evenly. The other person is in charge of cooking.

A tin can rocket stove is much smaller. One person can feed the fire and do the cooking.

Rocket stoves are pretty safe, but they do get hot. Be careful when you're near a rocket stove.