

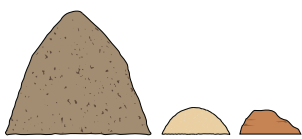


How to build an Energy-saving Stove

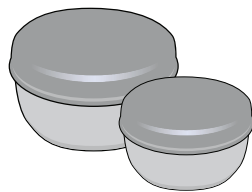
Many African families cook on an open fire, which uses lots of wood and creates unhealthy smoke. The Energy-saving Stoves used by Send a Cow farmers use a third of the wood and take smoke away from the cook. They also make a great project for kids in the UK!

Building an Energy-saving Stove

Materials you need before you start:



a mix of soil, clay and sand
(80%, 10% and 10%)



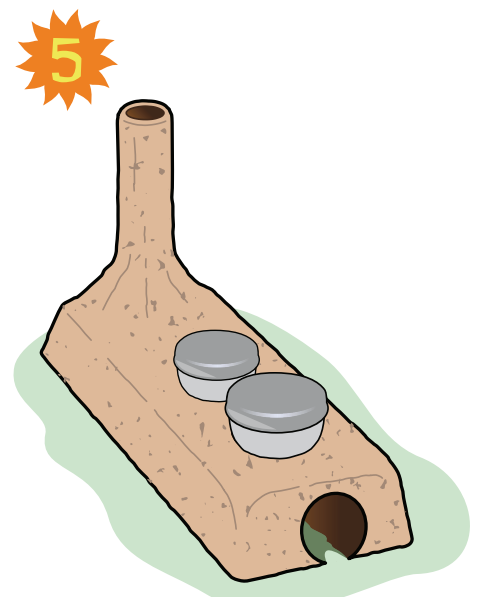
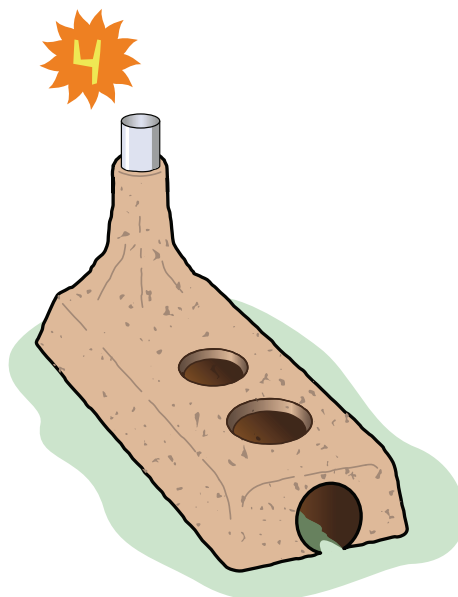
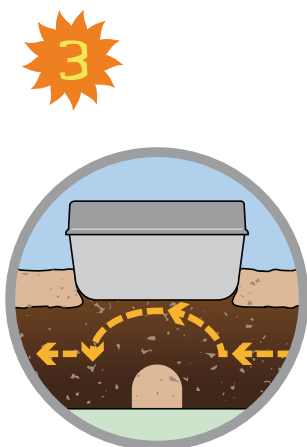
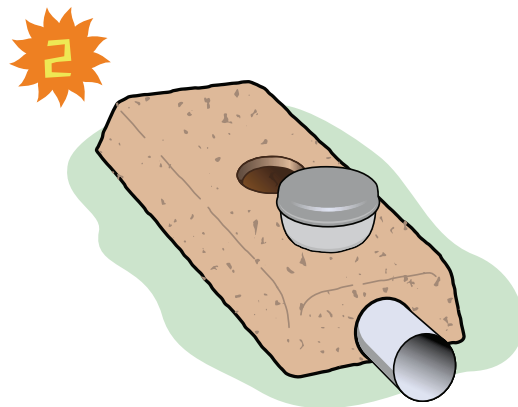
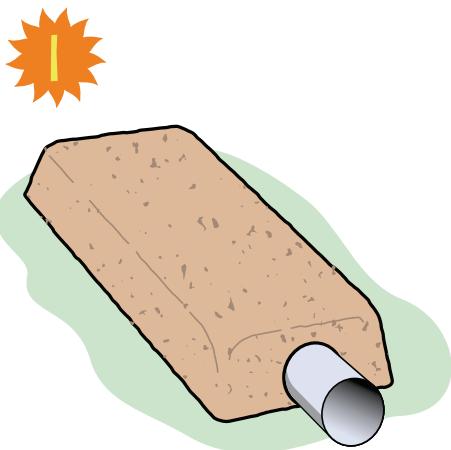
2 x cooking pots



cooking oil



drainpipe,
1m length



these steps explained overleaf...

Instructions

Pick a site for your stove outside, with good shelter and where smoke won't be a problem. Africans often make them in mud-walled homes, and funnel the chimney through a hole in the wall.



1 Mix the soil, clay and sand together, stirring in some water until it is stiff but you can still stir it. Coat the drainpipe with oil (so that you can remove it when you're finished) and pile up the mixture firmly around it, leaving the pipe sticking out at one end.

2 Place a pot on the top of the stove near the open end, and a smaller pot next to it. Mark around them, then cut and scoop out the mixture down to the pipe below. Smooth around the openings to make a good fit with the pots so that there are no gaps.

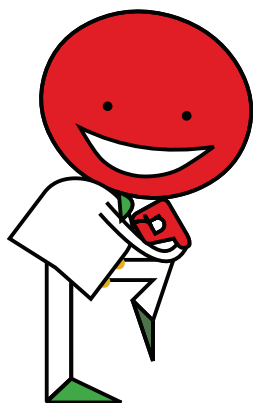
3 Carefully remove the tube and smooth the top and sides of your stove with wet hands. Mould the mixture under the small hole into a 'baffle' - a ridge to direct the flames towards the smaller pot..





4 Make your chimney by creating a hole at the blocked end of the stove and inserting the oiled pipe vertically. Add clay around the pipe until you have a steep cone shape and then carefully remove it when it is stable.

5 Leave your stove undercover to dry for a few weeks with the pots in place, and fill any cracks regularly with the mixture as it dries. When you are ready to cook, push tinder and sticks into the open end, and light. Always use with both pots to make sure that smoke does not escape through the holes.

Repair any cracks regularly, and your stove will last for years.

Happy cooking!



-  If you're growing sunflowers, use the dried stalks for kindling.
-  Make a taller chimney using a metal pipe to take smoke further away from the cook.
-  Compare an open fire with a stove - how long does each take to boil a pint of water?
-  You can find ideas, pictures and other Energy-saving Stove resources at:
www.sendacow.org.uk/africangardens



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