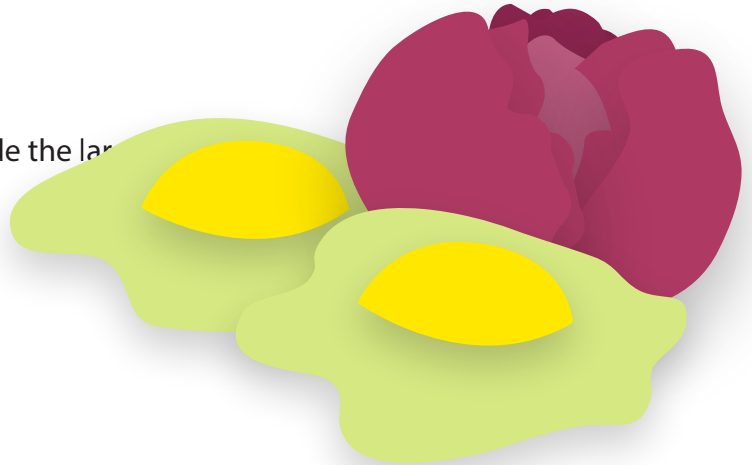


Zeer Pot

Build your own electricity-free refrigerator!

Collect

- 1 large unglazed clay flower pot
- 1 smaller unglazed clay flower pot that can fit inside the larger pot
- Clay or duct tape
- Sand
- Water
- Dishcloth or towel
- Thermometer



Build your refrigerator.

1. Plug the hole in the bottom of each pot with a bit of clay or duct tape.
2. Add sand to the bottom of the larger pot until the small pot can sit inside with its rim flush with the outer pot.
3. Place the smaller pot inside of the larger pot. Fill the open space between the two pots with sand, packing it down as you go.
4. Completely saturate the sand with water.

Test it out!

5. Put the thermometer inside the smaller pot and take note of the beginning temperature.
6. Place a dampened cloth or towel over the smaller pot.
7. After a few hours, remove the cloth and check the temperature reading on your thermometer. Did the temperature inside the small pot drop? What happens if you place the zeer pot in the sun or in the shade?

How does it work?

A zeer pot, also known as a pot-in-pot refrigerator, is an ancient technology that is still used in rural regions where electricity is uncommon. A zeer pot works by evaporative cooling. As the moisture from the sand evaporates, heat from the inner pot is removed, keeping it cool. This is similar to the way sweat keeps our bodies cool. As long as the sand remains wet, the fridge will continue to keep the contents of the inner pot cool. What will you store in your zeer pot?