



Slow Cooker

Grade Levels: 7-10

Background

Over half of the energy that we use in our houses is used for heating and for cooling. We can keep the warm or cool air inside by insulating our homes. Saving energy can also save a family money on their energy bills.

Question

Which natural material works best to insulate a homemade slow cooker _____.

Possible Hypothesis

The best insulator for a slow cooker is _____.

Materials

- 3 Cardboard boxes of equal size (large enough to hold pan and insulating material)
- 3 Potatoes of equal size
- 3 Identical cooking pans with lids
- Newspaper, cloth, hay, or other insulating materials
- 3 Cooking thermometers
- Water

Procedure

1. Place one potato in each pan and cover with the same amount of water. Boil them simultaneously for two minutes over the same amount of heat.
2. Place a layer of one insulating material in the bottom of each box, place the pans inside the boxes, surround the pans with insulating material, and close.
3. After one hour, record the temperature of the interior of the potatoes.

Analysis and Conclusion

Which insulator worked best? Is this an energy efficient way to cook food?

