

QUESTION

Does the shape of a container affect the rate at which cooling takes place?

MY HYPOTHESIS:





For tall containers, you may need to use wire or string to lower the thermometer into the water.

DID YOU KNOW?

Bacteria grow quickest in the "danger zone" between 40°F/4°C and 140°F/60°C

E X P E R I M E N T

COOLING COUNTS

Materials Needed:

- Hot water
- Measuring cup
- Shallow container
 (1 cup/500 ml minimum)
- Tall container
- Food thermometer
- Wire or string

made from the same material, like plastic or glass

PROCEDURE

- 1. Pour 1 cup hot water into each container.
- 2. Check the temperature of the water in each container at 5-minute intervals, and record the times and temperatures. (See tip at left)



- This is what I observed about the water cooling in each container:
 - Shallow:
 - Tall:
- Chart the results for temperatures at 5-minute intervals.

MY

MY CONCLUSIONS

- It took the taller container longer to cool because:
- It is important for leftover food to be cooled down quickly when stored in the refrigerator because:
- If the water were clam chowder and it took a long time to cool down, this is what could happen:

TEMPERATURE RULES! ...for cooking foods at home. ٥F Poultry—whole bird, legs, thighs & wings 180 **Poultry Breasts** 170 -Ground Poultry, Stuffing, Casseroles, Reheat Leftovers 165 -**Ground Meats:** Beef, Lamb, Veal (medium); Pork; Egg Dishes 160 -Beef, Lamb, Veal 145 steaks & roasts (medium rare) Ham, fully-cooked (to reheat) 140 **Holding Temperature** for Cooked Foods Danaer Zone Refrigerator 40 Freezer 0 -Temperatures



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Check to see how leftovers are stored in your home. Encourage family members to use shallow containers.