

# CHILL OUT

## 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

### QUESTION

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

### MY HYPOTHESIS:

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### PROCEDURE

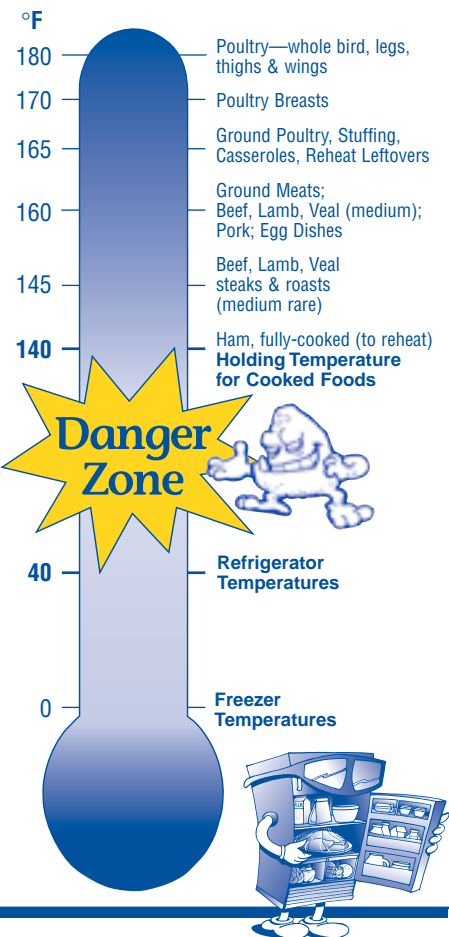
1. Pour 1 cup hot water into each container.
2. Check the temperature of the water in each container at 5-minute intervals, and record the times and temperatures. (See tip at left)



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

### TEMPERATURE RULES!

...for cooking foods at home.



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



- 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:

### DID YOU KNOW?

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

### TELL YOUR FAMILY . . .



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

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