

CALORIMETER DIRECTIONS

Materials: ring stand or other type of hanger support, aluminum can, aluminum foil, clay, straight pins, graduated cylinder, Celsius thermometer, matches, and water

1. Use ring stand with a hook to hold the can.
2. Put the can on a hook with tab or other hanger with the bottom of the can about 6 cm above ring stand base.
3. Wrap the ring stand with aluminum foil. Leave an opening to slide clay in under the can.
4. Measure 100 milliliters of water and place it in the can.
5. Take the temperature of the water. Record your measurement.
6. To find out how many calories are stored in the nut, burn it and use the heat produced to warm the water.
7. Place the head of a pin in a hunk of clay. Place a nut on the point.
8. Light the peanut with a match.
9. As soon as it starts to burn on its own, place it under the can in the calorimeter, and allow it to burn.

*If a nut goes out before it looks as if it burned up, get a new nut and freshwater, and start the process over.

*When the nut looks as if it burned up and goes out, take the temperature of the water again. Record the temperature.

*Knowing how many grams of water were warmed and how many degrees the temperature of the water rose, we can calculate the calories.