Area—Nutrition and Wellness
Project—Calculating Calories with a Calorimeter

Standards
SD FACS Standards
FCS 6.2.4
Evaluate sources of food and nutrition information that contribute to wellness
FCS 6.5.1
Assess current technology to locate food and nutrition information

SD Mathematics Standards
Math 7.M.1.1
Students are able to select, use, and convert appropriate units of measurement for a situation including capacity and angle measurement.
Math 8.S.1.2
Students are able to use a variety of visual representations to display data to make comparisons and predictions

Project
We know a calorie is the amount of potential energy stored in food, but how are the calories in a food determined? This project will lead students through the process of determining calories in foods.

What will you do?
Students will hypothesize the amount of calories in two foods and use a simple calorimeter to determine the accuracy of their hypothesis. They will take the data collected in present it in a visual form. Finally, the students will compare their hypothesis, the experiment results and the actual calorie count of the two foods.

What will you need?
Tin can (small soup can size, with 3 or 4 nail holes punched in side)
Cork, clay or foam covered with foil
Pins
Shelled peanuts
Sugar cubes
100 ml beaker
Digital scale
Matches
Cookie sheet
Safety goggles
Thermometer
Tap water

Resources
Internet calorie charts:
http://nat.crgq.com/mainnat.html;
http://www.annecollins.com/calories/index.htm or other calorie charts

How will you be evaluated?
Lab activity sheet

Adapted by Jean Clarke, Emery High School, SD, 2005
from "Engaged Activities—Standards Plus a Career",
Great Oaks Technology and Career Development, www.greatoaks.com