

# COMBUSTION

L3: Professional Grade

# Guiding Question: How is the energy density (amount of calories) of a food determined?

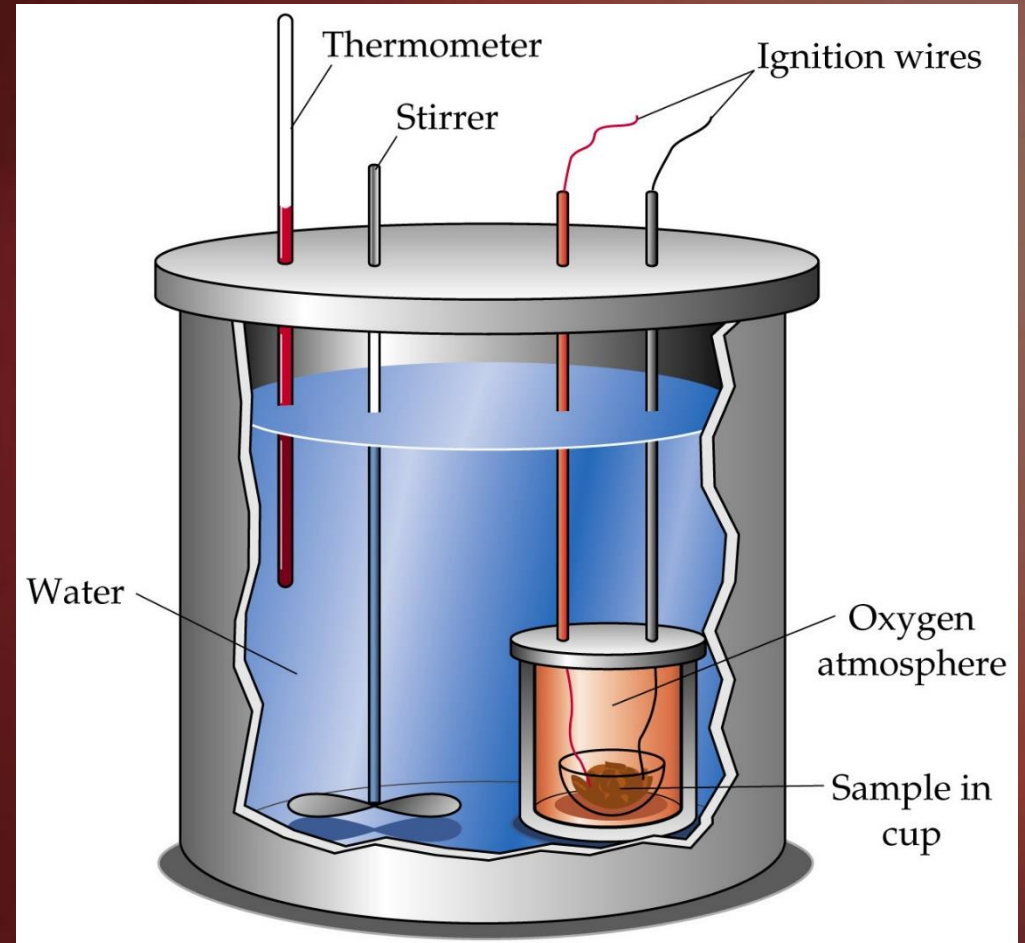
- Do Now:

- Compare the food pairs. Decide which has the most calories. How did you make that decision?



# NOTES

- Bomb Calorimetry is used to determine the amount of energy in a sample of food.



# NOTES

- Most calorimeters measure energy in calories, not Calories and there is a difference!

$$1 \text{ Calorie} = 1000 \text{ calories}$$

- Where 1 calorie (little c) is the amount of energy it takes to raise 1g of some substance  $1^{\circ}\text{C}$



# NOTES

- The food was placed in a sealed container, ignited, and the resulting fire heated the surrounding water. The temperature change was measured as the food fully combusted (burned) and converted into calories or Calories (also known as kilocalories, or kcal)

# HOMEWORK

- Syllabus Due today
- Homework 1 Due Friday