

Activity 63**Measuring Calories****Remember: Show ALL Your Work!!!!!!**

1. An ice cube was placed in 200 mL of 65°C water. The temperature changed to 55°C by the time the ice cube melted.

a.) How many calories of heat energy did it take to melt the ice cube? (Show your work, units and circle your final answer.)

T_i	
T_f	
T_{Δ}	
vol.	

b.) After the ice melted, 220 mL of water was measured. How many calories would it take to melt one gram of ice? (Show your work, units and circle your final answer.)

Vol. of ice	
Mass of ice	

2. A calorimeter was used to determine the calorie content of an Iowa corn nut. The temperature of

50 mL of water changed from 25°C to 45°C.

a.) How many **heat calories (c)** are in this corn nut? (Show work, units and circle your final answer.)

T_i	
T_f	
T_{Δ}	
vol.	

b.) How many **food Calories (C)** are in this corn nut? (Show work, units and circle final answer.)

calories	
----------	--

c.) The corn nut has the mass of 2 grams, how many **heat calories (c)** are in one gram of corn nut? (Show work, units and circle answer.)

calories	
Mass of nut	