

HEATERS AND REFRIGERATORS

Name _____

Date _____ Class _____

For experiments 1-3:

1. Place 100 ml of liquid in the beaker.
2. Measure the temperature and record it on line zero.
3. Add one level spoonful of baking soda (NaHCO_3) and record the temperature every 15 seconds.
4. Rinse the beaker and move on to another liquid and repeat the process.

For experiment 4:

1. Place 100 ml of water in the beaker.
1. Add one level spoonful of calcium chloride (CaCl) and record the temperature every 15 seconds.
2. Rinse the beaker thoroughly and place in the drying rack.
3. Answer the lab questions.

DON'T GET THIS IN YOUR EYES!

TIME:	NaHCO_3 & <u>water</u>	NaHCO_3 & <u>lemon juice</u>	NaHCO_3 & <u>vinegar</u>	CaCl & <u>water</u>
0 SEC.				
15 SEC.				
30 SEC.				
45 SEC.				
60 SEC.				
75 SEC.				
90 SEC.				
105 SEC.				
120 SEC.				
135 SEC.				
150 SEC.				
165 SEC.				
180 SEC.				
NET CHANGE:				

For each experiment write the net change in temperature. Be sure to use a "+" for temperatures that increase as in +3 and a "-" for temperatures that decrease such as -6.

Experiment 1: _____

Experiment 2: _____

Experiment 3: _____

Experiment 4: _____

For each experiment write "endothermic" or "exothermic."

Experiment 1: _____

Experiment 2: _____

Experiment 3: _____

Experiment 4: _____

Which experiment yielded the greatest change in temperature?
