



A Cool Change

Procedure

1. **Collaborate** Work with a partner. Record your observations in the chart below.

Chemical Change	
Starting temperature	
Observations of vinegar and baking soda	
Final temperature	

2. **Measure** Add four tablespoons of vinegar into a cup.
Safety: Wear goggles.
3. **Measure** Use a thermometer to find the temperature of the vinegar. Record this starting temperature in your chart.
4. **Observe** Measure one-half teaspoon of baking soda and add it to the vinegar. Record your observations in your chart.
5. **Record Data** When the change stops, measure the temperature of the liquid in the cup as you did in step 3. Record this final temperature in your chart.

Name _____ Date _____

Conclusion

Write the answers to the questions below.

1. **Communicate** Describe what happened after you added baking soda to the cup.

2. **Analyze Data** How did the temperature change after you added baking soda?

3. **Hypothesize** What do you think happened to the baking soda after you added it to the cup? What observations led you to make this hypothesis?

Design an Experiment Did the properties of the vinegar change? Try adding more and more baking soda to the liquid from step 5. Do you get the same reaction? Is this a physical change?

Guided Inquiry