What's the Temperature?

Strands:

Number & Operations	
Algebra	
Measurement	
Geometry	
Data & Probability	X

Materials:

- Thermometer (outside) or Internet
- Colored pencils

Suppose you want to go swimming with friends next week. Can you predict the temperature? Try your hand at forecasting through this activity.

1. Measure the outside temperature two times a day, once before lunch and once before dinner. Measure the temperature at the same two times each day.
   a. To get the temperature, use a thermometer or go to www.weather.com and enter your city and state.
   b. Do this for seven days, and record the temperatures in the table on the next page.

2. Create two line graphs on the axes provided on the next page. Using a colored pencil, create a line graph with the before-lunch temperatures. Using a different color, create a line graph with the before-dinner temperatures.
   a. What patterns do you notice in the graphs?
   b. What do you think the temperature will be on day 8 before lunch? Before dinner? Why do you think so?
   c. Plot the estimated temperatures on your graph.

3. On the eighth day, find the two temperatures and compare them with your estimates. How well did you predict the new temperatures? How would you explain why your estimates were close or not?
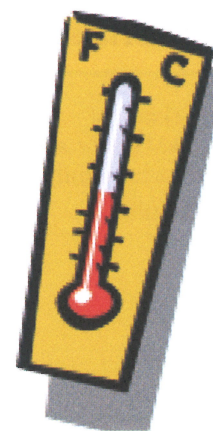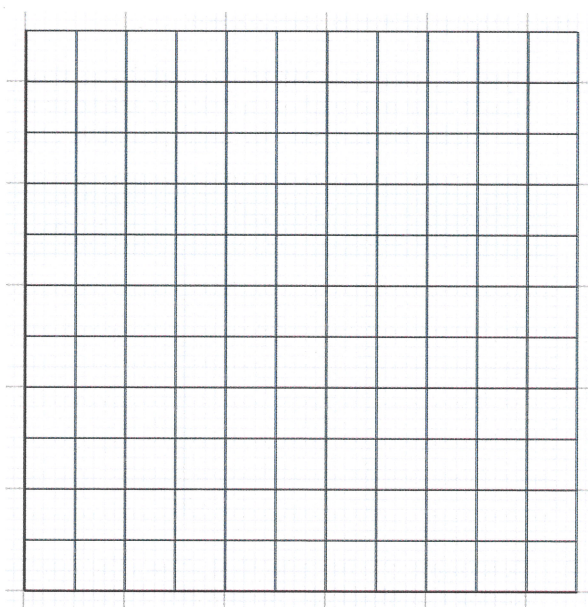
Where?

Outside	X
Inside	X
On-line	X
On-site	

Table for recording the temperatures over a week:

Time of Day	1	2	3	4	5	6	7
Before Lunch Temperature							
Before Dinner Temperature							

Axes and grid for your line graphs:

Extension:
When you find the temperatures for this activity, also find and record the humidity. Humidity is a measure of the amount of water vapor in the air. To get the humidity, go to www.weather.com and enter your city and state at the top of the website. To see the humidity, move your cursor over the details button just below the current temperature. Graph your findings, and look for any patterns in the humidity data. What similarities and differences do you see between the temperature and humidity graphs? What relationship might exist between temperature and humidity? You can also keep track of the "misery index" if you are doing this activity during a very hot week.