Name:

Measuring U.S. Climate Change

The two key factors in determining climate are temperature and precipitation. We will look their fluctuations over the last century or so using the data on the website below. http://www.ncdc.noaa.gov/oa/climate/research/cag3/cag3.html

1. Select the 'Statewide' Button. Realize that the data can also be analyzed on different scales (national, regional, etc.)
2. Choose any state by clicking on it or the list at the bottom of the window.
3. First select the 'Mean Temperature'. Eventually we will also look at precipitation data for the same state and time period.
4. Also be sure to select 'Annual' in the Period Menu.
5. Leave all of the other settings as they are and click the 'Submit' button. It can take a while for the graph and information to load when many people are accessing the site simultaneously so be patient.
6. When the information appears, record below the 'Annual Trend' for the time period shown. Remember, we want the **Trend** not the average temperature.
7. Go back to the last page and select 'Precipitation'. Then click on the 'Submit' button to display the precipitation information.
8. When the information appears, record below the 'Annual Trend' for the period shown. Remember, we want the **Trend** not the average precipitation.
9. Now repeat the above process for three more states. Choose states from a variety of areas/regions.

	State 1	State 2	State 3	State 4	Averages
Temperature Trend					
Precipitation Trend					

According to your results, what is happening to the climate (temp. and precip.) in the United States?

Is their a constant relationship between temperature change and precipitation change? If so, what is it? If not, why not?

Let's change the scale at which we examine climate change in the U.S.. Go back to the original page **http://www.ncdc.noaa.gov/oa/climate/research/cag3/cag3.html** and select the 'National' Button.

Now create a chart of the annual temperature and precipitation data for the entire U.S.

What do the data suggest about the climate trends for the entire country? Don't forget to look at both temperature and precipitation data.

Does this analysis agree or disagree with the data you collected on a state level. Why or why not?

In the end, do the data prove or disprove that global warming is occurring? Why or why not?