Name(s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**How Has Temperature Varied Regionally Since the Industrial Revolution?**

**Exploration 3: A Comparison of Regional Temperature Anomalies**



Use the [**interactive, time series graphing tool**](http://www.ces.fau.edu/nasa/module-3/regional-temperature/exploration-3.php) to answer the following questions.

1. Make a few hypotheses before you begin to compare the 130-year for Florida, North America, and Global Temperature Anomalies.
	1. Do you think the Florida, North America, and global temperature anomalies will show a warming trend?

 \_\_\_\_\_ Yes \_\_\_\_\_ No

* 1. Do you think that the more recent decades will show an increased rate of warming for Florida, North America, and globally?

 \_\_\_\_\_ Yes \_\_\_\_\_ No

* 1. Which do you think will have a greater range between high and low temperature anomalies?

 \_\_\_\_\_ Florida     \_\_\_\_\_ North America     \_\_\_\_\_ Global

* 1. Which do you think has more variable temperature anomalies over time?

 \_\_\_\_\_ Florida     \_\_\_\_\_ North America     \_\_\_\_\_ Global

1. Analyze the temperature anomaly variation for Florida: Uncheck the box next to *Global* and check heck on the box next to *FL*. You should see the Florida temperature anomaly data only.
2. Describe the general trend for change in Florida temperature anomalies.
3. What is the lowest temperature anomaly recorded during that time period? What is the highest? What is the range of temperature anomalies (lowest to highest)?
4. Analyze the temperature anomaly variation for North America: Click on the *FL* box beneath the graph to uncheck it, and click on the *NA* box. You should see the North American temperature anomaly data only.
5. Describe the general trend for land temperature anomaly.
6. What is the lowest temperature anomaly recorded during that time period? What is the highest? What is the range of temperature anomalies (lowest to highest)?
7. Look at the global temperature anomaly data for 1880-2010. Check the *Global* Temperature Anomaly box below the graph to see the data displayed on the graph.
8. Describe the general temperature anomaly trend over this time period.
9. What is the lowest temperature anomaly recorded during that time period? What is the highest? What is the range of temperature anomalies (lowest to highest)?
10. Use the data you recorded in questions 1 – 3 to complete the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Geographic Space** | **Lowest Temperature Anomaly (**˚**C)** | **Highest Temperature****Anomaly (**˚**C)** | **Range (**˚**C)****Lowest Temperature Anomaly to Highest Temperature Anomaly** |
| Florida |  |  |  |
| North America |  |  |  |
| Global |  |  |  |

1. Which location has the smallest range in temperature variation? Which has the largest? Explain why you think this trend occurred.