Climate Lab Student materials

Lesson 3: Climate Change

Now that you've thought about climate, and how it relates to the lives of organisms, you're ready to connect that to climate change. In this lesson, you encounter the main details about climate change, starting with global average temperatures.

Activity 1. Massachusetts and the world

Look at Figure 1 - the graph of global average temperature since 1950.

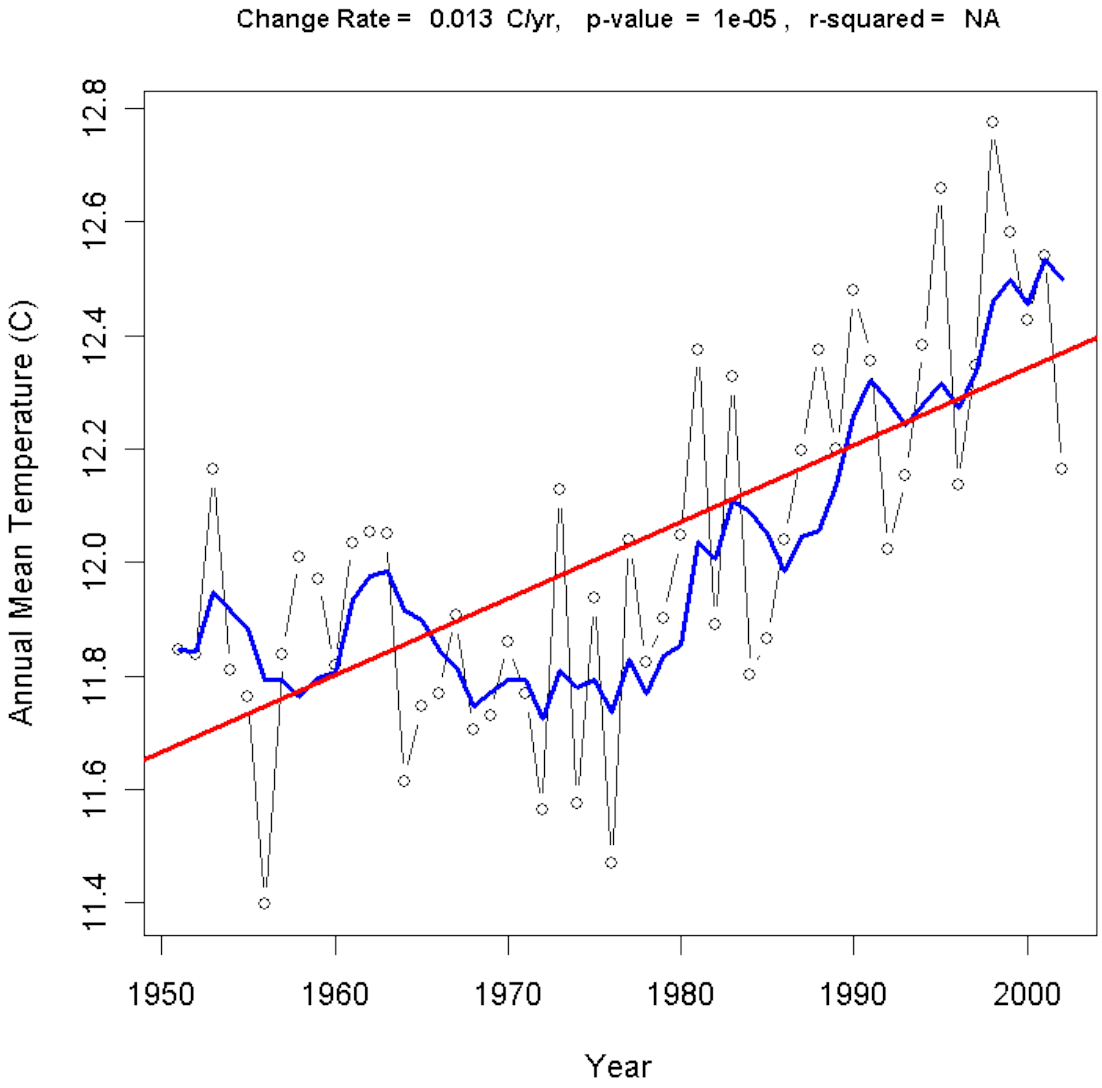

Figure 1 – Global Average Temperatures

1. What is the overall trend?

Now compare it to Figure 2 - the Massachusetts graph.

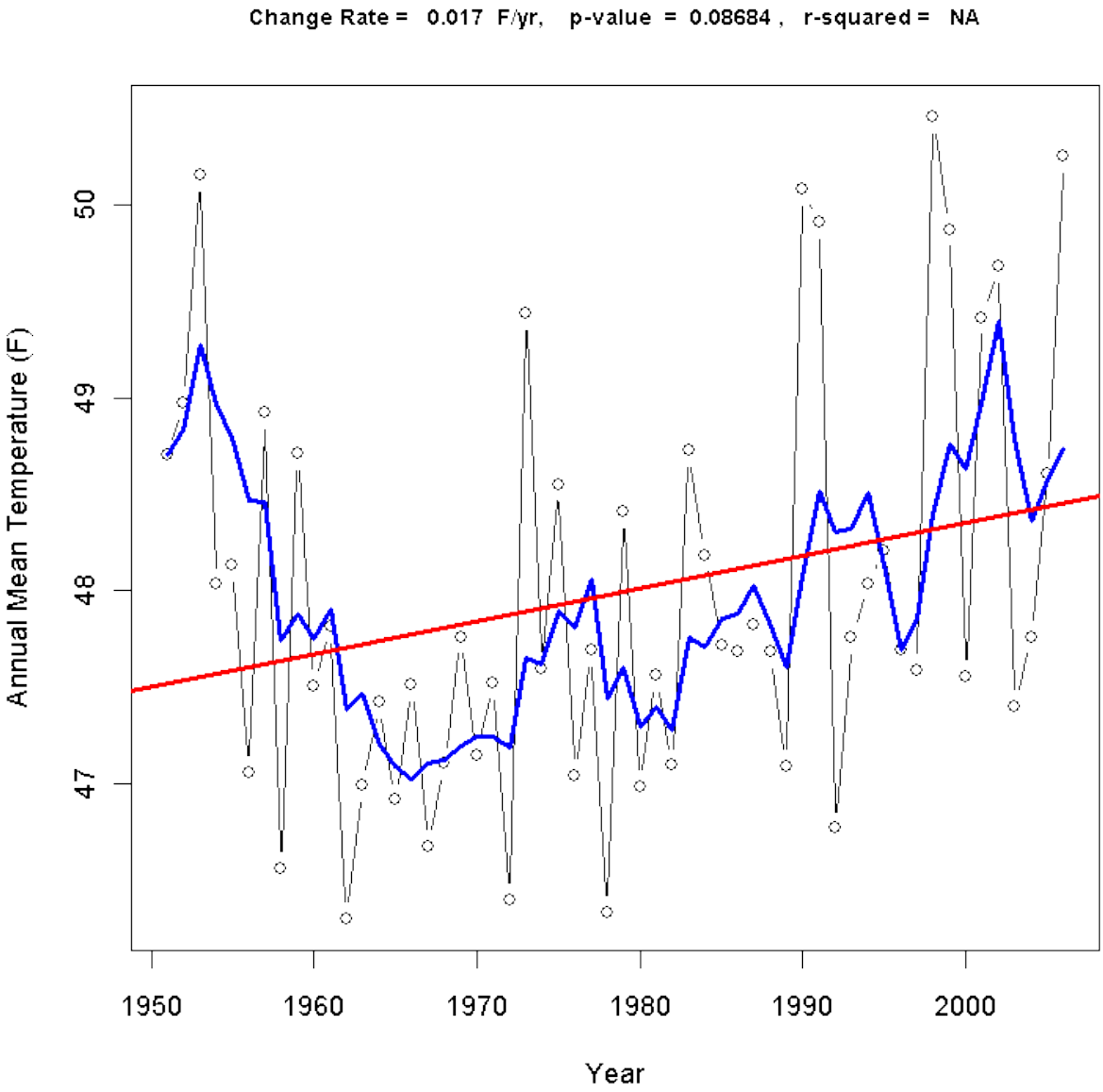

Figure 2 – Massachusetts Average Temperatures

2. First, what's different about the axes? Are the units of measurement the same?

In order to compare the two graphs, we need to have them both using the same measurement. Scientists use Celsius instead of Fahrenheit because it's a scale centered on the physical properties of water – 0˚ Celsius is freezing, 100˚ Celsius is boiling.

3. Convert the numbers on the Massachusetts graph to Celsius. (The formula is 5(N-32) / 9 where N=degrees Fahrenheit).

4. Now, what are the differences between the two graphs?

5. What are the similarities?