

Name _____ Due Date _____

Partners _____

COASTAL AND CONTINENTAL TEMPERATURE RANGES

INTRODUCTION: There are large variations in average monthly temperatures among cities located at the same latitude. This suggests that there must be factors besides the angle and duration of insolation (which are the same at a given latitude), which affect the rate of heating and cooling.

OBJECTIVE: To examine the range in temperatures over the period of one year for continental (inland) and coastal cities, in order to observe the effect that large continents and water bodies have on temperatures.

VOCABULARY:

temperature range:

PROCEDURE:

Graph the average monthly temperatures for the four cities given on the data chart (New York and Los Angeles are coastal cities, Bismarck and Phoenix are continental cities). Plot all four curves on the same set of axes. Use a different color for each city and include a key.

QUESTIONS:

1. How can you tell from the temperature curves that these cities are located in the northern hemisphere? _____
2. Land has a _____ specific heat than water, so it heats up and cools off _____.
3. The yearly temperature range for Bismarck is _____, and for Los Angeles it is _____.
4. Since Bismarck and New York are at the same latitude, the angles and durations of insolation during the year are _____.
5. The city of _____ has the narrowest temperature range because it is a _____ city. The city of _____ has the widest temperature range because it is a _____ city.

CONCLUSION: Describe the difference in annual temperature ranges between coastal and continental locations.

