



Name: _____ Date: _____

Student Post-Test (Middle School)

Introduction

Pretend that you are a travel agent and have been asked to arrange a trip for your class during the month of May. The students have selected two cities (Townville and Gotham City) and have asked you to make the final choice. Your teacher has only one requirement: You must select the warmest city.

Unfortunately, you do not know what the temperature for either of these cities will be. Your teacher has informed you that there is a way to determine the temperature by comparing its location with other cities around the world. Therefore, your first job is to determine the trend. You then contacted some of your friends around the world and asked them to record their temperature over the same week and average it. Each of your friends from the following schools sent this information:

| School | City | State | Country | Latitude | Longitude | Temperature (°C) |
|-----------------|--------------|------------|-----------|----------|-----------|------------------|
| Kameyosek | Edmonton | Alberta | Canada | 54 | -114 | 8 |
| Woodbridge | Bridgeville | DE | USA | 39 | -75 | 22 |
| Abraham Lincoln | Bunker | FL | USA | 25 | -80 | |
| Georgetown | Georgetown | Prashad | Guyana | 7 | -58 | 32 |
| Marshall Rd. | Brisbane | Queensland | Australia | -27 | 153 | 25 |
| San Martín | Buenos Aires | | Argentina | -34 | -58 | 15 |
| Rosetta | Hobart | Tasmania | Australia | -43 | 142 | 12 |

Students from the Abraham Lincoln School forgot to average their daily temperature and instead sent you the temperature for each of the five days. This means that you will have to average it and insert it into the table above before you can move to the next step.

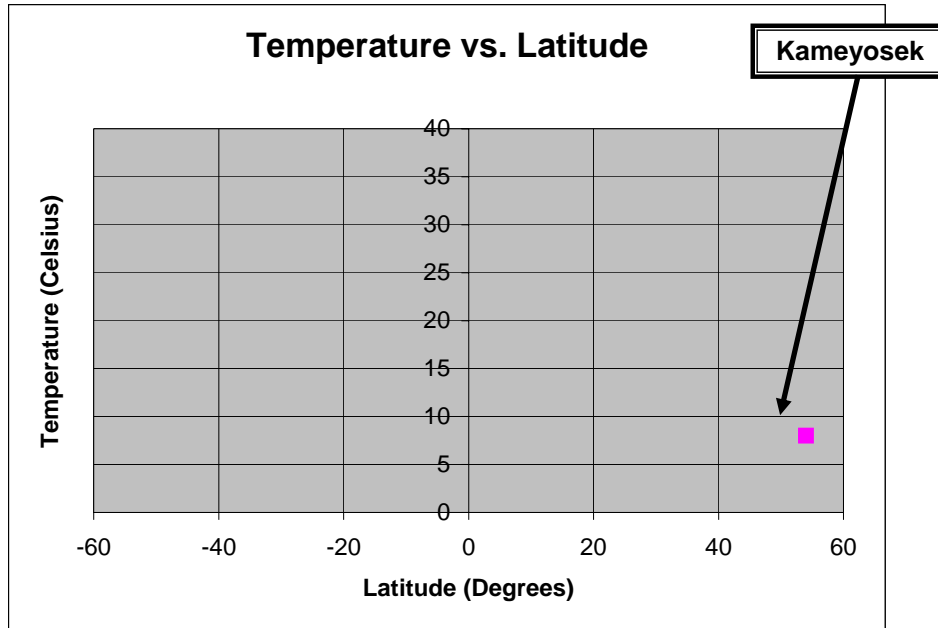
| | Monday | Tuesday | Wednesday | Thursday | Friday |
|------------------------|--------|---------|-----------|----------|--------|
| Temperature (°Celsius) | 29 | 27 | 29 | 32 | 28 |

1. What was the Average Temperature for the week? _____ °C

Graph the Results

The next step is to plot the different schools using Latitude and the Temperature in degrees Celsius. Use the graph below to plot all seven schools. One example, the Kameyosek School from Canada, has already been completed for you.

GRAPH 1



2. What trend have you noticed? _____

3. Why do you think this is so? _____

Making the Choice

Now that you've determined the trend, you are prepared to decide which of the two choices selected by your class is the warmest. The two cities that were selected are:

City: Townville
Latitude: 52° North

City: Gotham City
Latitude: 9° South

4. Add these two cities to the graph on the previous page.

Convert North and South into (+) and (-) numbers:

Examples: (1) 52 N = 52 (2) 9 S = - 9

5. Which of the two cities is the warmest? _____

6. What might the temperature be? _____ °C

7. Why? (Please base your results using information from the graphs above).

Follow-up Questions

Add this city to the graph on the previous page:

City: Bakerstown
Latitude: 5° South
Temperature: 10° Celsius

8. Why do you think this city is different than the others? What are some factors that might affect the temperature?
