Unit 9, Lesson 4

What Influences Temperature?

Let's see if we can predict the temperature.

4.1 Temperature Changes

What factors or variables can influence the outside temperature in North America?

- Make a list of different factors.
- Write a sentence for each factor describing how changing it could change the temperature.

Example: One factor is time of day. Often, after sunrise, the temperature increases, reaches a peak in the early afternoon, and then decreases.

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4.2 Predicting the Temperature

Andre says, "I think temperature is a function of the latitude of the location, as long as we keep the time the same when we are measuring the temperature. I know that the temperature varies from summer to winter and throughout the day. By fixing the time, we remove that variability."

Lin says, "Good idea to fix the time. Now what if we have 2 places with the same latitude? Look at this weather map for Washington State. Seattle and Spokane have the same latitude but different temperatures."

What do Andre and Lin mean?



4.3 Is There an Association Between Latitude and Temperature?

1. Data collection:
   a. Latitude _____
   b. Temperature _____
2. Complete the table to collect your data. Your table should include the cities or locations chosen, the latitude (in degrees north), and the temperature (in degrees Fahrenheit).