Worksheet: A VIRTUAL VISIT TO THE TOP OF THE WORLD

This exercise will introduce you to polar oceanography and how events that occur in oceans thousands of kilometers away affect you in the mid-latitudes.

A. If you traveled to the North Pole, what would conditions be like there? Would you be able to stand on solid land? Ice? Would you be floating on open-ocean? If you are standing on ice, what is under that ice? Write your thoughts below.

B. What do you think the weather is typically like? How cold is it? Is it typically stormy or fair?

C. Identify the latitude at the North Pole.

D. How far is the North Pole from your community? Express your answer in kilometers. To help you answer this question, visit a geocoding Web site such as http://www.wunderground.com or http://geocoder.us to help you find the latitude and longitude of your community. You may also look at the page "**U.S. Map**." *You may use the relationship that 1 degree of latitude equals approximately 110 kilometers to calculate your distance.*

E. Look at the images at http://www.arctic.noaa.gov/gallery_np.html (both real-time and archived) or look at the images on the page **"Images from the Arctic."** Do these pictures help you to answer any of the questions you've pondered? Do they raise any additional questions? If so, add those questions below.

F. Look at the page "**North Pole Weather Data From 2007**" or view real-time weather data (graphical format) for the North Pole at http://www.arctic.noaa.gov/gallery_np_weatherdata.html.
What is the average summer temperature at the North Pole?

G. If you have access to the internet, visit this interactive world climate data map: http://www.climate-charts.com/World-Climate-Index-Map.html. Locate the nearest reporting station to the North Pole. What is the name of this reporting station and how much annual precipitation is received there?

H. Use the same map to find the reporting station closest to your school. How much annual precipitation is received where you live?