3.1 Toxic Emissions In Your Neighborhood

(Word Processor, internet)   10 points

Name _____

Due Date _____

Go to http://www.planethazard.com/

Note: at first this might seem like an unreliable source:
1. *It is not a .gov or .edu domain*
2. *It isn't clear who runs the site*
3. *The website is not operated by a well-known or recognized organization*
4. *The website seems to have a specific point of view.*

Normally, those would be important warning signs and would make one look for other sources of information. However, in this case all the website has done is make data from the Environmental Protection Agency available in an easy to find format, so we will go ahead and use it.

Find a list of the top 10 polluters in and around your city. If your city is not listed, chose a city that is closest to you.
(Top 10 in this case is ranked by the pounds of emissions; there might be facilities that produce less but more toxic emissions, so these are NOT necessarily the "worst" polluters).

1. What is the nearest listed facility to your home? What do they emit and how much do they emit? How far is this from your house?

2. What is the largest polluter in your area? What do they emit and how much do they emit? How far is this from your house?

Find the closest polluter that emits at least 1000 pounds annually. List all the pollutants they emit and the amounts (if it is the same as questions 1 or 2, you can just tell me that).

3. Go to www.scorecard.org, and click on chemical profiles in the lower left corner. For all of the pollutants you listed in #3, find their profile and list the recognized or human health hazards. You can do this on the back or on a separate sheet of paper.

4. Type and submit a one half page summary of what you found, and correctly formatted sources of information from this assignment.

3.2 Fine Particle Air Pollution

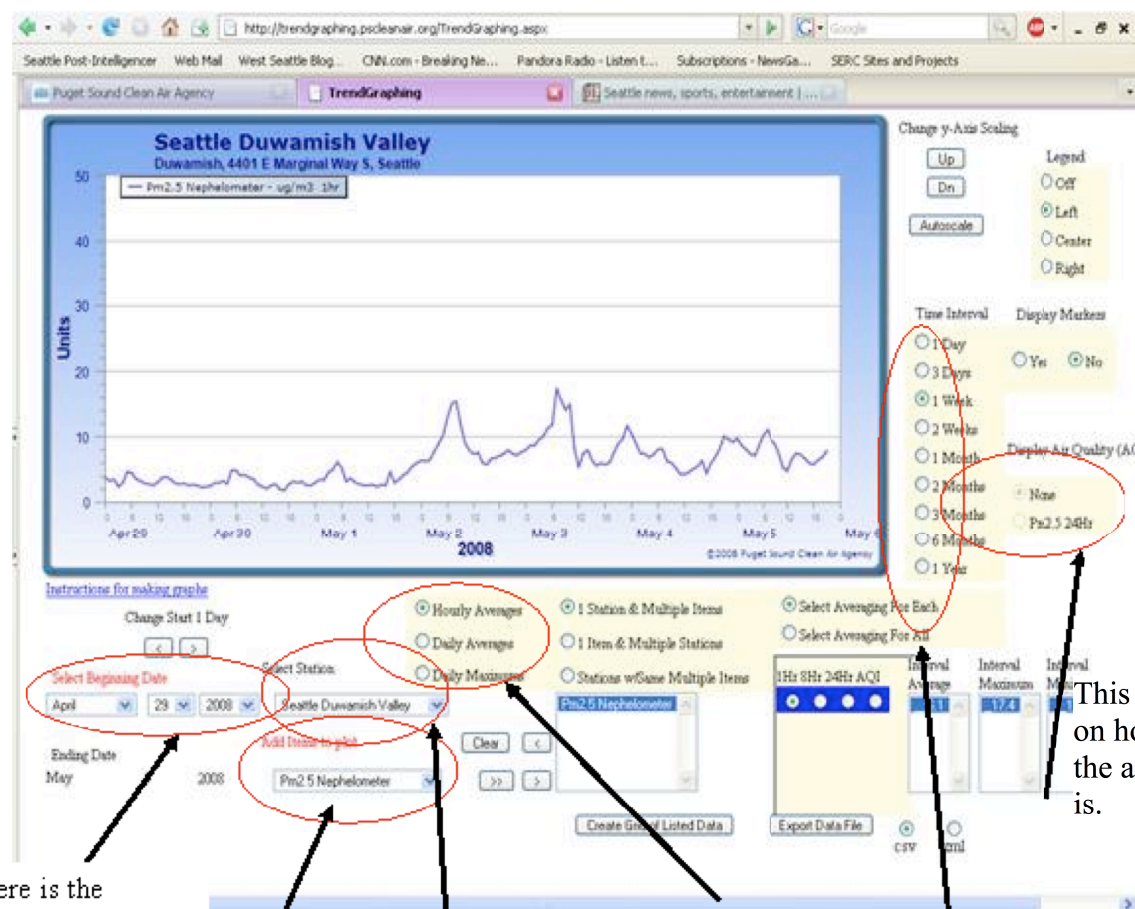(Word Processor, internet)   10 points

Name _____

Due Date _____

Fine particles (PM 2.5) are the most important and problematic air pollution in the Puget Sound area. In this exercise you will look at PM2.5 data from the nearest monitoring station to your house.

Go to http://trendgraphing.pscleanair.org/TrendGraphing.aspx

You can get graphs of pollutants over time from any Puget Sound area station:

Here is the Beginning Date

Here is the pollutant you are looking at

Here is the location

This determines if you are looking at the amount averaged over an hour or a day.

This is how you change how much time is shown on the graph
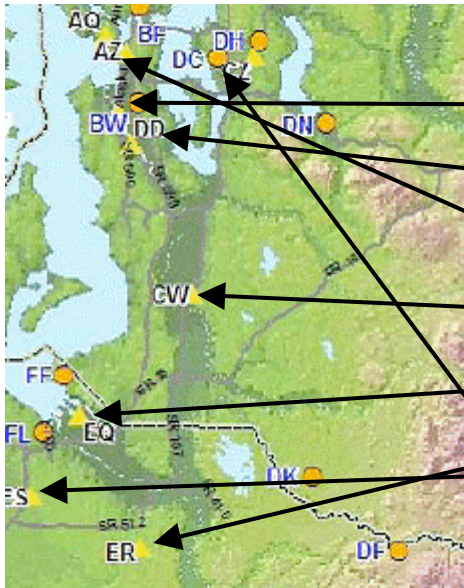
This adds info on how bad the air quality is.

3.2 Fine Particle Air Pollution

(Word Processor, internet)   10 points

1. Where do you live? City _____ Zip Code:_____

Find the Air quality site that is closest to your residence:

BW	Beacon Hill, 15th S & Charlestown, Seattle
DD	Duwamish, 4752 E Marginal Way S, Seattle
AZ	Olive Way & Boren Ave, Seattle
CW	James St & Central Ave, Kent
EQ	Port of Tacoma, 2301 AlexanderAve
ER	Puyallup South Hill
ES	7802 South L St, Tacoma
DC	305 Bellevue Way NE, Bellevue

2. Which site is closest?

3. Get and print the Pm2.5 data for the last 24 hrs, week, year, and 3 years. Select "Daily averages" . It does not matter which Pm Data you choose.

4. When was the worst fine particulate air pollution in the last 24 hrs, week, year, and 3 years? When was it?

5. The maximum amount allowed is now 35 ug/m^3. Was that amount exceeded? How often?

6. What times of the day is the particulate matter the worst where you live?

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7. What months is particulate matter the worst where you live?

8. Add temperature data to your 3 year graph. What do you notice? Why might this be? Write a paragraph explaining why there is a relationship between PM 2.5 and temperature.

9. Type and submit correctly a formatted citation of the source for this assignment.