**Global Warming Homework/Class Work**

1. Draw a line graph using the information given below

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| Time (Year) | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 |
| CO2 (ppm) | S: 311  W: 319 | S: 315  W: 321 | S: 322  W: 325 | S: 323  W: 326 | S: 332  W: 338 | S:334  W: 342 | S: 351  W: 367 | S: 355 W: 373 | S: 373  W: 381 |

1. Graph:
2. Look at 1960, how does the summer (S) levels of CO2 compare to the winter (W) levels of CO2? Does this trend continue in other years?
3. If yes, why does this phenomenon occur?
4. Draw a line of best fit on your graph. Over time, what seems to happen to the CO2 levels? Why do you think this is occurring?
5. How do you think this graph will look, realistically in 2060? What do you think will happen to the rate of increase of CO2 levels? Why do you think this change will occur (or have to occur)?
6. Describe global warming, and how it occurs/alters the global temperature?
7. For the following line graph, make Time your X axis, and the other two your Y-axes. Construct a graph given the following information:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time (Year)** | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2005 | 2010 |
| **CO2 (ppm)** | 310 | 319 | 323 | 328 | 342 | 351 | 364 | 373 | 389 |
| **Temp Change (oC)** | 0.1 | 0.15 | 0.05 | 0.23 | 0.19 | 0.14 | 0.43 | 0.53 | 0.54 |

1. Graph:
2. As you go from 1970 to 2010, what happens to the CO2 levels consistently? Does this surprise you? Why or why not?
3. For temperature change, draw a line of best fit. What, in general, seems to happen to temperature as CO2 levels increase?
4. Describe the albedo effect, and how this process would be impacted if this graph were true?
5. How does sea ice differ from land ice?
6. What is the thermohaline circulation system? How will it be affected if