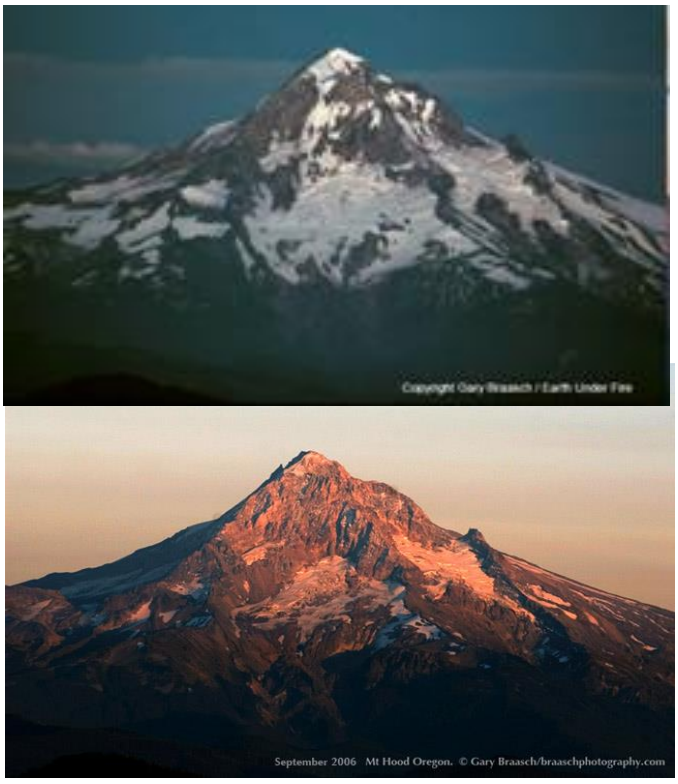
Name _____ Pd _____ Date _____

Is There Global Warming?
Photographs and graphs for interpretation

PICTURE SET A – Grinnell Glacier from 1940 - 2006

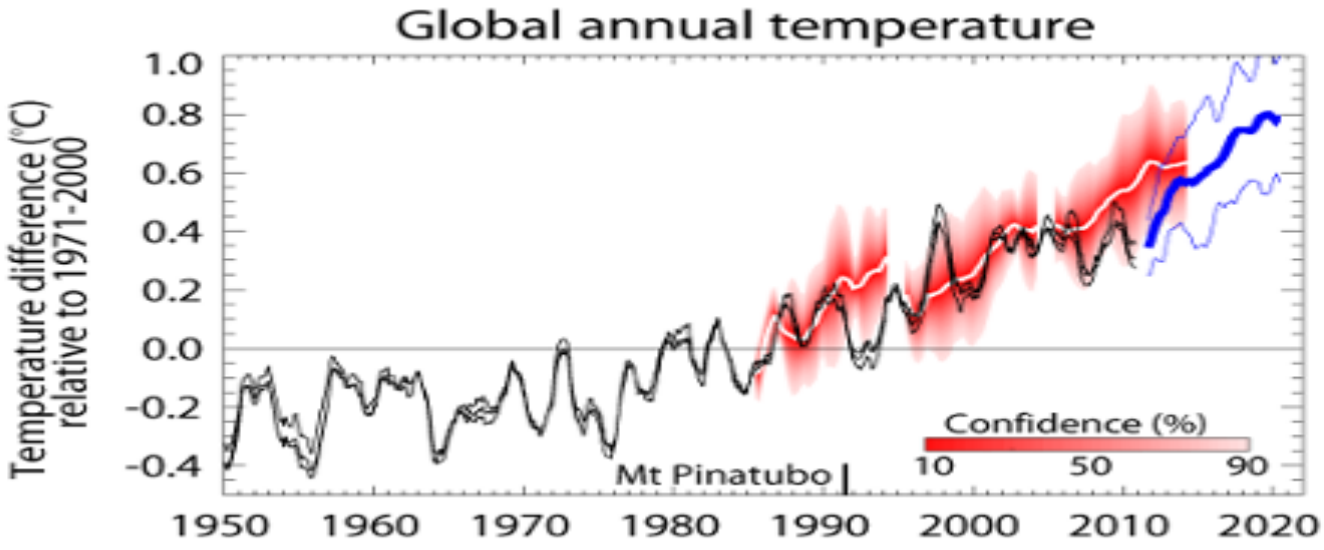
1. Record your observations of these two pictures? *(What do you see?)*
2. List the natural causes for the changes you see.
3. List human actions that could cause the changes you see.
4. Predict: What would happen to the biotic factors in the area based on the changes you see?

PICTURE SET B – Mt. Hood Autumn 1984 - 2006



5. Record your observations of these two pictures? *(What do you see?)*
6. List the natural causes for the changes you see.
7. List human actions that could cause the changes you see.
8. Predict: What would happen to the biotic factors in the area based on the changes you see?

Is There Global Warming?
Photographs and graphs for interpretation

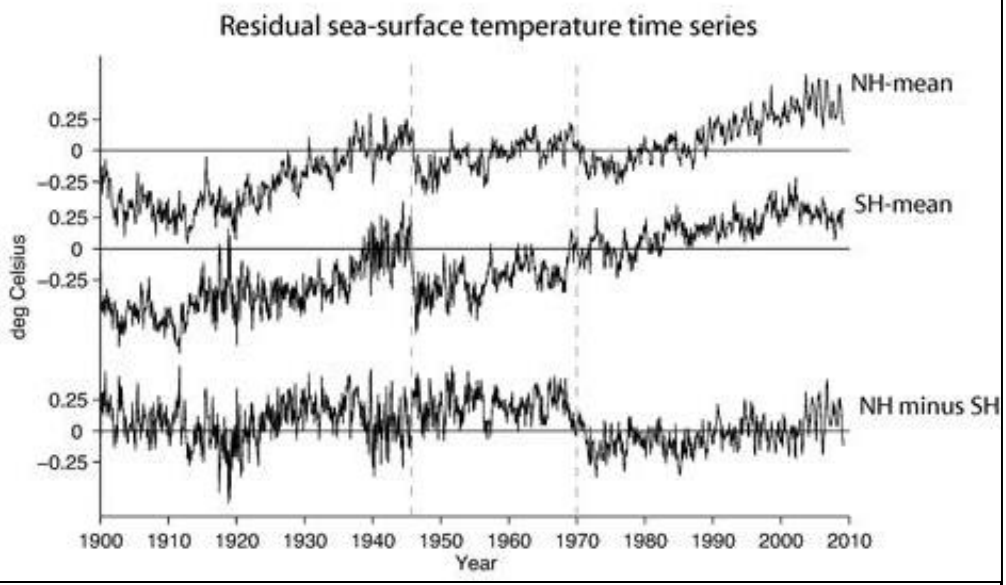


9. Summarize the information this graph is giving you.

10. What connections do you see between this graph and the photos on the previous page?

11. How do we know this graph is accurate?

12. Predict: What would happen to the biotic factors in the area based on the changes you see?

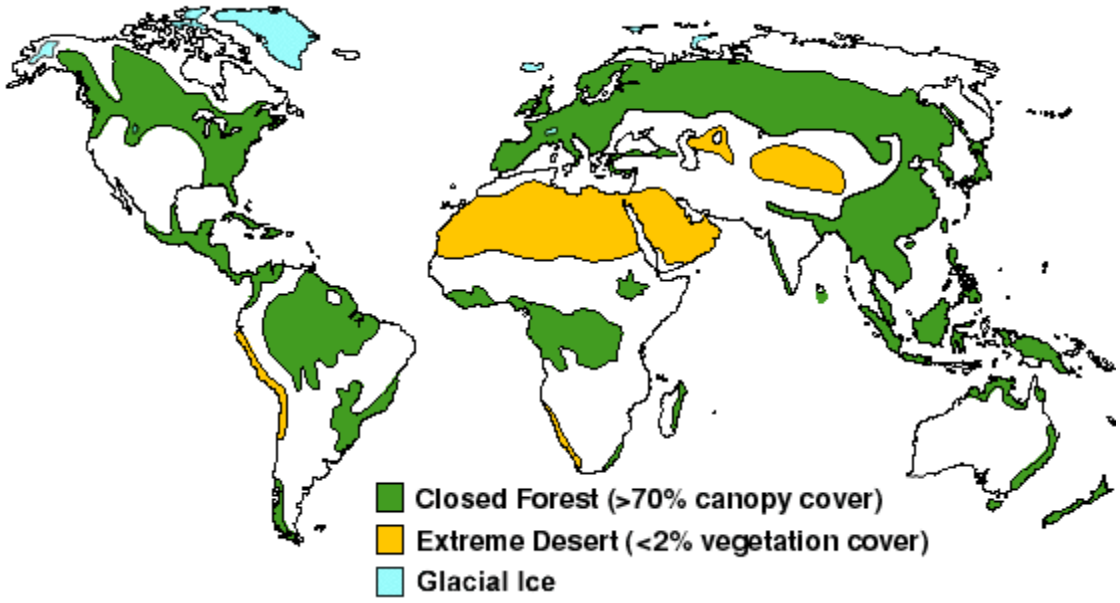


Note: NH = Northern Hemisphere / SH = Southern Hemisphere

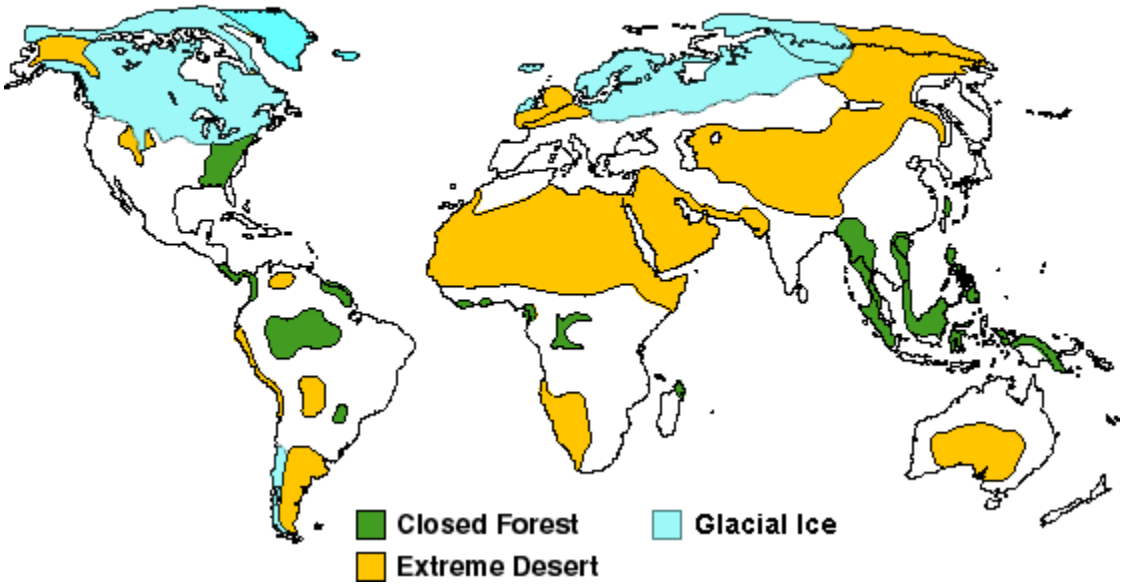
13. Summarize what information this graph is giving you.

14. Does looking at this graph change any of your previous conclusions or ideas? Explain why or why not.

PRESENT VEGETATION



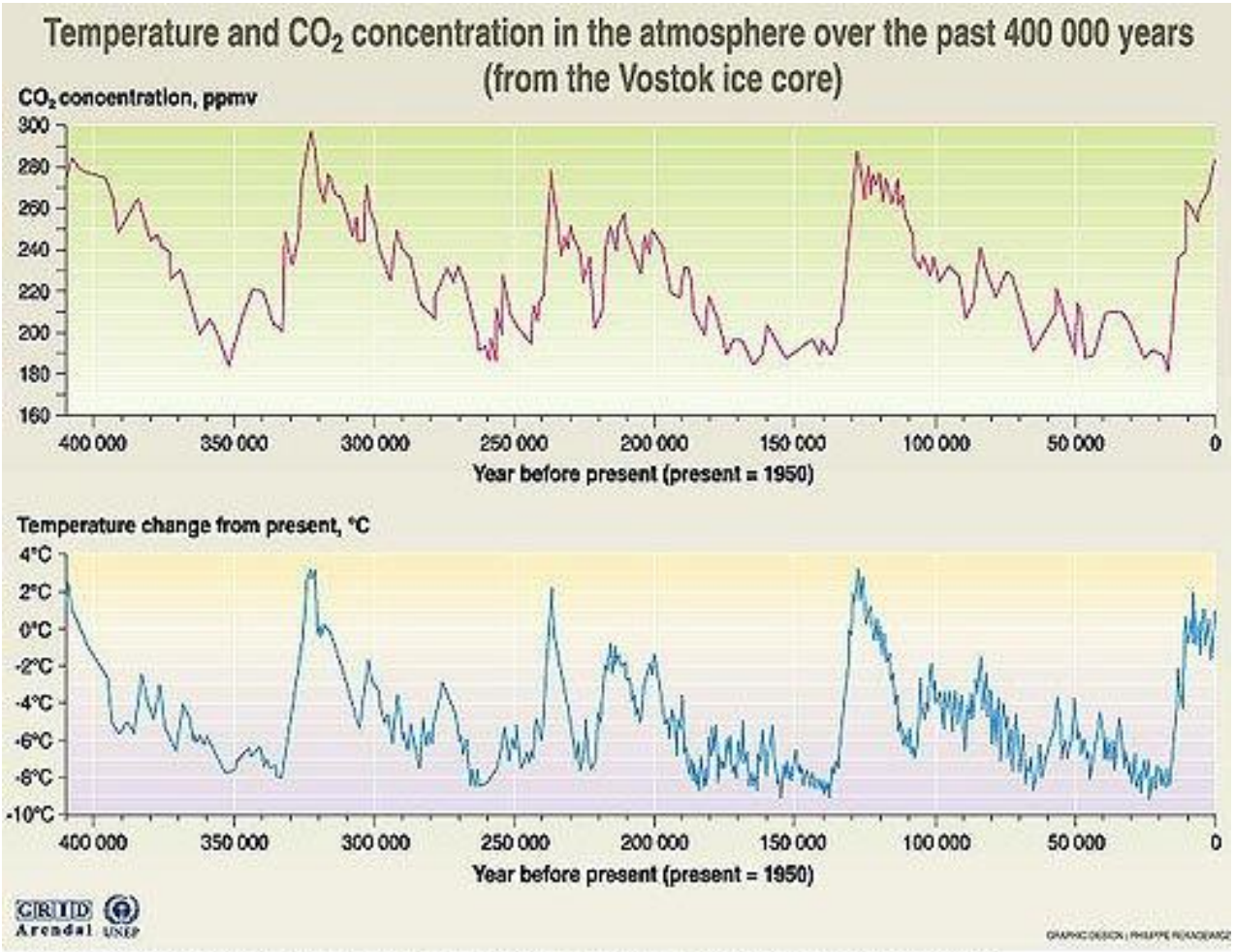
Last Glacial Maximum (18,000 ^{14}C years ago)



15. What information is being presented by these graphs?
Where there was _____ *18,000 ^{14}C years ago and where those things are today.*

16. Compare the past vegetation to the present vegetation.

17. Explain a possible reason for the changes from the past to the present.



Source: J.R. Petit, J. Jouzel, et al. Climate and atmospheric history of the past 420 000 years from the Vostok ice core in Antarctica, Nature 399 (3JUne), pp 429-436, 1999.

18. How does the information in these graphs relate to the changes we just observed in past and present vegetation?

CO^2 Graph:

Temperature Graph: