

4. What key outside factor affects the global climate system?

5. Complete this equation:

When energy in = energy out, we have _____ climate system

6. Looking at the diagram on slide 14, in what form does energy *reach* the earth's climate system?
In what forms does energy *leave* the earth's climate system?

7. Describe the *enhanced* greenhouse effect. "Enhanced" is the word used to discuss human-created climate change.

8. What are 3 major climatic responses to the enhanced greenhouse effect observed by IPCC scientists?

9. What happened to create the enhanced greenhouse effect and change the balance in the climate system?

Carbon is crucial; Weathering the storm Slides 17 - 37

10. How is carbon released? What are the natural sources of carbon in the global climate system?

11. What are the natural sinks (absorbers) of carbon?

12. What is the main form of carbon linked to the enhanced greenhouse effect?

13. What human processes release carbon into the atmosphere at a rate faster than the natural system can absorb?

14. What other human activities have contributed to the reduction in carbon absorption?

15. List the types of weather changes associated with climate change.

16. The density of seawater drives the flow of ocean currents. What 2 key physical characteristics determine the density of seawater?

17. Why is thermohaline circulation important to the climate and ecosystems around the world?

18. What are some of the problems that plants and animals face with rapid changes in climate?

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19. What types of technology assist scientists in studying climate change?

20. List 3 emission-free energy sources.

21. List 3 transportation technologies that reduce the emission of greenhouse gases.

22. What is the Kyoto Protocol?