

When prompted, enter KAET as your station -> <http://earththeoperatorsmanual.com/feature-video/earth-the-operators-manual>
If the above video link is broken, use <https://www.youtube.com/watch?v=2Byypls47E>

1. Earth's population now totals almost _____ people & is headed toward _____ people. (Insert numbers.)
2. The three fossil fuels include...
A) _____ B) _____ C) _____
3. Enter the percentages of energy we get from each of the following.... at least as it was back in 2012.
_____% Fossil Fuels _____% Nuclear _____% Hydro
_____% Renewable _____% Wood / Dung
4. What would happen if the entire world used energy like the USA?
5. A) How did oil, coal and natural gas form? B) How long ago did this happen?
A) _____
B) _____
6. What are the differences in formation between petroleum, natural gas and coal?
7. The element, _____, makes up most of a fossil fuel molecule.
8. How did the military run into problems with the warming nature of CO₂?
9. Why do those crack (crevasses) form in the glacier?
10. What is the big deal with those bubbles in the glacier? Why are they significant?
11. Describe (don't just list) three sources of natural climate variation.
A) _____
B) _____
C) _____
12. Twenty thousand years ago, the ocean level was almost 400' lower. Where did all that formerly liquid water go?
13. Some people claim only cities are warming. Why is this claim incorrect?
14. Atmospheric CO₂ historically has varied between _____ & _____ parts per millions but now is close to _____ PPM.
15. Tell two things the double graph with red and blue lines indicates.
A) _____ B) _____
16. Humans create _____ X more CO₂ than volcanoes.
17. The rise in CO₂ matches the fall in _____
18. How do we know that the rising CO₂ is really from humans and not from other sources?

19. Why is the Pentagon concerned about climate change?

A)

B)

20. Do you think the US military's move to renewables will be beneficial (helpful)? YES / NO Circle/underline one then give 2 reasons why you say so or why not.

A)

B)

21. TRUE / FALSE (Choose then explain.) The USA is the country that most strongly supports solar energy. Explain your answer.

22. TRUE / FALSE (Choose then explain.) There isn't enough solar energy hitting Earth to meet our energy needs.

23. What is a problem with relying ONLY on solar energy?

24. Why is Brazil's use of sugar cane ethanol fuel better than using corn as the US is doing?

25. What did the MIT study find about creating electricity from hot rocks beneath the US? How long would our supply last?

26. Each wind turbine can earn up to \$ _____ / yr for the land owner. With 10 turbines, that = an income of \$ _____.

27. Just by changing to LED traffic signal lights, Houston is saving \$ _____ / year.

28. Simply just by making our buildings more efficient, we could reduce our energy consumption by _____ .

29. Looking at the graph at 51:20, tell three specific ways our world would be different if we met this goal.

A)

B)

C)

30. Knowing what you do now, why do you think we still rely on fossil fuels so much and continue to subsidize their use? How can so many of our "leaders" deny the data?

31. Thought Question A. Describe three things you learned from this video, write a question you still have, make a comment, or include any combination of the three below.

1)

2)

3)

32 Thought Question B: What did you think of the film and of this assignment? I really appreciate your feedback.