

Name_____

Per_____

Nova Treasures of the Earth: Power (2016)

<http://www.pbs.org/wgbh/nova/earth/treasures-earth-power.html>

1. What appliance in your home uses the most power?

2. Where does the power for the grid come from?

3. What is a turbine?

4. What is the key component (part) of a turbine?

5. What do we call a flow of electrons?

6. Circle the fuel(s) used to make steam for the turbine: coal / wood / oil / natural gas / gasoline

7. Why has coal been replaced by natural gas?

8. Which continent has the largest coal reserves in the world?

9. What type of rock is on the surface above the mine?_____

10. How long ago was the rock deposited?_____

11. What kind of environment was the shale was deposited in?_____

12. Where did the carbon in the trees come from?

13. What type of plants became the coal?

14. What shapes do carbon atoms form?_____

15. What happens to molecules as the temperature gets higher?_____

16. When bonds between atoms are heated and break, what is released? _____
17. What activity caused the rising level of carbon in the atmosphere start? _____
18. Before coal burning, what was the primary source of energy for work? _____
19. What fossil fuel is providing 40% of world wide energy needs today? _____
20. How many pounds of coal equal one tank of gasoline? _____
21. What type of rock is found on the surface that indicates oil is underground? _____
22. What is carbon dioxide in the atmosphere compared to in your home? _____
23. What are two possible impacts of the global rise in temperature?

24. What percent of the world's energy is supplied by fossil fuels?

25. What else besides energy is made from carbon (oil)?

26. Which fossil fuel is the cleanest form of fossil fuel? _____
27. Where did the energy stored in fossil fuel come from?

28. Is there enough power coming from the Sun to power our planet? _____
29. In what common substance is silicon found? _____
30. What does "photo" mean?

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31. How can solar energy be stored? _____
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32. What element is necessary to make batteries rechargeable? _____
33. What old type of power does not contribute to Carbon pollution? _____
34. In what country is energy being captured from waves? _____

Write a brief paragraph (at least 5 sentences) summarizing what you learned.

