

Energy Webquest

This webquest is designed to help you gain a better understanding of energy. You need to complete the series of activities outlined below and answer any questions in your science journal (full sentence answers). Have fun!

Go to the website <http://www.eia.doe.gov/kids/> or if this fails to load go to www.google.com and type in the words "energy kids". Select the first option from the list that has been generated for you. You know you're on the right site when it looks like the homepage image below:



Click on the book icon "What is energy?"

From there click on the ABC blocks "energy basics"

Q1. Energy is the ability to do what?

Q2. Write down 7 forms of energy: _____

Q3. Give four examples of renewable energy: _____

Q4. Why are non-renewable energy sources also called "fossil fuels"? _____

From the menu on the left hand side of the page select "Forms of energy"

Q5. Energy forms are either _____ or _____.

Q6. What is potential energy? _____

Q7. What is kinetic energy? _____

Q8. Sort the following types of energy into either the potential or kinetic energy categories:

Radiant, chemical, mechanical, thermal, gravitational, motion, nuclear, sound, electrical

| Potential | Kinetic |
|-----------|---------|
| | |
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| | |

From the left hand side of the screen select the menu item "Laws of Energy"

Q9. What is the law of conservation of energy? _____

Q10.



Explain what the diagram above means: _____

From the left hand side of the screen select the menu item "Sources of energy"

Q11. What is the percentage of energy consumption for the following sources?

Petroleum _____ Natural gas _____ Wind _____

Biomass _____ Uranium _____ Coal _____

From the left hand side of the screen select the menu item "History of Energy"

Q12. Which energy source was civilization's first invention? _____

Click on Oil (petroleum)

Q13. In 2000 BC the Chinese refined crude oil for use in what? _____

Q14. What important event happened in 1859? _____

Q15. Complete this sentence:

In the 1890's the mass production of _____ began creating demand for gasoline.

Before this, _____ used for heating had been the main oil product.

Q16. What year did gas stations start opening up everywhere in the United States? _____

Q17. Which 5 countries made up the original OPEC group? _____

Q18. In 1972, oil well productivity reached a high of how many barrels per day? _____

Q19. In 2006, what renewable fuel did refineries start using in response to the Energy Policy Act? _____

From the left hand side of the screen select 'electricity' from the blue menu

Q20. In around 600 BC Thales discovered static electricity by rubbing which two objects together? _____

Q21. In what year did William Gilbert (England) first coin the term *electricity* from *elektron*, the Greek word for amber? _____

Q22. In 1752 how did Benjamin Franklin prove that static electricity and lightening were the same thing? _____

Q23. What year did Alessandro Volta invent the first electric battery? _____

Q24. What year did Thomas Edison invent the incandescent light bulb? _____

Q25. In 1883 Nikola Tesla invented what? _____

Q26. What year was the first network of ATM machines developed? _____

From the left hand side of the screen select the menu item "Games & Activities"

Complete some of the activities highlighted in this section!

END OF WEBQUEST