

Energy

1. 91% of energy we use in the United States comes from nonrenewable, and 9% from renewable energy. Complete the table below:

Nonrenewable	%	Renewable	%
_____	40	_____ mass	4
Coal	22	Hydropower	5
Natural Gas	22	Geothermal	"
Nuclear	7	Solar	"
Total	91		9

2. What is wrong with the following picture?



3. Put the following fuels in order of highest to lowest net energy: coal, oil, nuclear. Explain what factors contribute to the lowest placed fuel having such a low net energy.

4. Complete the following sentence:

Affordable oil is expected to run out within 42-93 years, burning of fossil fuels is the primary cause of air pollution and global warming. Some believe that a shift in energy resources involving improved energy _____ and increased use of _____ energy to produce hydrogen is the answer.

5. (i) Who has most of the world's oil reserves?
 (ii) What percentage of the world's oil does the US use? Chose from 30, 70 %
 (iii) What percentage is imported? Chose from 20, 60, 90 %

6. Hydrogen is said by many to be the fuel of the future. When hydrogen burns in air it combines with oxygen to produce water.

- (i) where is the hydrogen going to come from?
- (ii) What process is used to produce it?

7. Complete the table below for Hydrogen with the following:

negative net energy, renewable, emissions, cost

Advantages	Disadvantages
	Not found in nature
Low environmental impact	Energy needed to produce
Easy to store	
Safer than gasoline	Short driving range
Non toxic	No distribution system in place

8. Give one advantage and one disadvantage of using oil as a source of energy.

9. No new plants have been built since the three mile island accident, so why are some environmentalists advocating a return to nuclear power generation?

10. Today most low-level radioactive waste is placed in landfills. From the 1940's to the 1970's the waste was put into steel drums and dumped where?

BONUS:

Congratulations. You have just been put in charge of the world. List the three most important features of your energy policy.