Fill in the crossword puzzle by using the clues.

Across

1. These nonrenewable resources are forms of ____________ energy created from natural occurring elements.
2. System must have: source of energy, process and load.

3. One type of energy flow diagrams are called ___ ___ ___ ___ ___ Diagrams.

4. The flow of energy within any system can be documented using energy flow ___ ___ ___ ___ ___.

5. Nuclear power is also considered a ___ ___ ___ ___ ___ energy resource.

6. Advancements in the processing and controlling of ___ ___ ___ ___ ___ resources have been an enabling factor in the development of technology.

7. ___ ___ ___ ___ ___ power is generated using uranium and produces around 11% of the world's energy needs.

8. The designed world is the product of a design process, which provides ways to turn ___ ___ ___ ___ ___ - materials, tools and machines, people, information, energy, capital, and time - into products and services.

9. ___ ___ ___ ___ ___ energy (light): is electromagnetic energy that travels in transverse waves.

10. ___ ___ ___ ___ ___ resources include fossil fuels such as coal, oil, and natural gas.

11. ___ ___ ___ ___ ___ fuels provide around 66% of the world's electrical power and meet 95% of the world's total energy demands.

12. For example, the ___ ___ ___ ___ ___ (chemical energy) in a car is converted to heat (thermal energy) and movement (mechanical energy).

**Down**

1. ___ ___ ___ ___ ___ energy: is energy stored in the bonds of atoms and molecules. Biomass, petroleum, natural gas, and coal are examples of stored chemical energy.

2. ___ ___ ___ ___ ___ energy: is energy stored in the nucleus of an atom - the energy that holds the nucleus together.

3. ___ ___ ___ ___ ___ energy resources include water, solar and wind.

4. The heat required to produce steam, which turns the turbine is created using a process called ___ ___ ___ ___ ___., where atoms split and release energy in the form of heat.

5. Wind works similarly, the wind blows and turns the blades of the ___ ___ ___ ___ ___.

6. ___ ___ ___ ___ ___ energy: energy stored in the movement of objects.

7. ______________ power plants take advantage of the downward flow of water to turn the blades of a turbine.
8. First Law of Thermodynamics—Energy cannot be created or destroyed, it can be ___ ___ ___ ___ ___ ___ ___ ___ ___ from one form to another.

9. ___ ___ ___ ___ ___ ___ ___ ___ ___ energy: energy made available by the flow of electric charge through a conductor.

10. Solar power plants generate electricity by converting the ___ ___ ___ ___ ___ ___ ___ ___ ___ energy from sunlight to electrical using specific materials within the solar panel.

11. ___ ___ ___ ___ ___ ___ ___ ___ energy: or heat, is the vibration and movement of the atoms and molecules within substances

12. Oil and Coal ___ ___ ___ ___ ___ plants produce harmful environmental emissions.

13. The major ___ ___ ___ ___ ___ of energy are: thermal, radiant (light,), electrical, mechanical, chemical, and nuclear.

Select your answers from the following words:

Sankey forms Nonrenewable gasoline
Electrical Thermal Chemical chemical
fission Nuclear Mechanical energy
power converted Hydroelectric Radiant
radiant nonrenewable turbine diagrams
Nuclear resources Renewable Power
Fossil


Word Search - 5.1.1 Energy and Power

Try to find the hidden words.

J R A D I A N T S F Z A U J S G Q O S I
U L U R W E V C O N V E R T E D G R S X
K W R E N E W A B L E M N X P O W E R D
N O N R E N E W A B L E M E J G H S U H
F Y F N U C L E A R X S R J R U L O E X
M A J I U I O C H E M I C A L G R U T T
W Z C U S C Y F F O R M S R Q H Y R A R
D A F U K S L E L E C T R I C A L C G B
J F G R C F I E P P H N C K N W V E H G
D R O T A Y U O A J G Y W O L A L S W Q
A I X Z U D N O N R E N E W A B L E Z S
V G A S O L I N E J F H G H S U T N J E
W T F G L X C A W T M E C H A N I C A L
V H J O R E H F N L F J V S A A G D X B
G E B C S A E F G T Z Z M S B B R A T U
V R Y Y F S M T I L P H J A S I Y N A W
V M V C O T I S P D T O L N R A W Z W F
O A U M Y D C L M Y H J W K E F B H S L
F L E O Y S A T U R B I N E E B A H V G
H Y D R O E L E C T R I C Y R J T L U W

Select from the following words:

- Power
- chemical
- Renewable
- radiant
- resources
- converted
- Sankey
- Electrical
- Nonrenewable
- Mechanical
- energy
- Nuclear
- fission
- nonrenewable
- Nuclear
- Radiant
- diagrams
- gasoline
- power
- Thermal
- turbine
- Fossil
- Hydroelectric
- Chemical
- forms
Fill in the blanks in these sentences with the word that fits.

1. The designed world is the product of a design process, which provides ways to turn ___ ___ ___ ___ ___ ___ ___ ___ ___ - materials, tools and machines, people, information, energy, capital, and time - into products and services

2. Advancements in the processing and controlling of ___ ___ ___ ___ ___ resources have been an enabling factor in the development of technology.

3. First Law of Thermodynamics-Energy cannot be created or destroyed, it can be ___ ___ ___ ___ ___ ___ ___ ___ ___ from one form to another.

4. For example, the ___ ___ ___ ___ ___ ___ (chemical energy) in a car is converted to heat (thermal energy) and movement (mechanical energy).

5. The major ___ ___ ___ ___ ___ of energy are: thermal, radiant (light), electrical, mechanical, chemical, and nuclear.

6. ___ ___ ___ ___ ___ energy: or heat, is the vibration and movement of the atoms and molecules within substances

7. ___ ___ ___ ___ ___ ___ energy (light): is electromagnetic energy that travels in transverse waves

8. ___ ___ ___ ___ ___ ___ ___ ___ ___ energy: energy made available by the flow of electric charge through a conductor.

9. ___ ___ ___ ___ ___ ___ ___ ___ ___ energy: energy stored in the movement of objects

10. ___ ___ ___ ___ ___ ___ ___ ___ ___ energy: is energy stored in the bonds of atoms and molecules. Biomass, petroleum, natural gas, and coal are examples of stored chemical energy.

11. ___ ___ ___ ___ ___ ___ ___ ___ ___ energy: is energy stored in the nucleus of an atom the energy that holds the nucleus together.

12. ___ ___ ___ ___ ___ ___ ___ ___ ___ resources include fossil fuels such as coal, oil, and natural gas.

13. These nonrenewable resources are forms of ___ ___ ___ ___ ___ ___ energy created from natural occurring elements.

14. ___ ___ ___ ___ ___ ___ fuels provide around 66% of the worlds electrical power and meet 95% of the worlds total energy demands.

15. Oil and Coal ___ ___ ___ ___ ___ plants produce harmful environmental emissions.
16. Nuclear power is also considered a ___ ___ ___ ___ ___ ___ ___ ___ ___ __ ___ energy resource.

17. ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ power is generated using uranium and produces around 11% of the worlds energy needs.

18. The heat required to produce steam, which turns the turbine is created using a process called ___ ___ ___ ___ ___ ___ ___ where atoms split and release energy in the form of heat.

19. ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ energy resources include water, solar and wind.

20. ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ power plants take advantage of the downward flow of water to turn the blades of a turbine.

21. Wind works similarly, the wind blows and turns the blades of the ___ ___ ___ ___ ___ ___ ___.

22. Solar power plants generate electricity by converting the ___ ___ ___ ___ ___ ___ ___ energy from sunlight to electrical using specific materials within the solar panel.

23. ___ ___ ___ ___ ___ Systems must have: source of energy, process and load.

24. The flow of energy within any system can be documented using energy flow ___ ___ ___ ___ ___ ___ ___.

25. One type of energy flow diagrams are called ___ ___ ___ ___ ___ ___ Diagrams.

Select your answers from the following words:

- Renewable
- Nuclear
- fission
- forms
- Fossil
- Mechanical
- turbine
- Chemical
- Nonrenewable
- gasoline
- Thermal
- Nuclear Sankey
- Hydroelectric
- energy
- converted
- Sankey
- power
- chemical
diagrams
- Nonrenewable
- resources
- Power
- Radiant
- Electrical
- radiant
Fill in the blank with the letter next to the word that best completes the sentence.

1. Advancements in the processing and controlling of __________ resources have been an enabling factor in the development of technology.
   a. Renewable
2. __________ energy: energy made available by the flow of electric charge through a conductor.
   b. Mechanical
3. These nonrenewable resources are forms of __________ energy created from natural occurring elements.
   c. converted
4. __________ Systems must have: source of energy, processand load.
   d. Hydroelectric
5. __________ energy: is energy stored in the bonds of atoms and molecules. Biomass, petroleum, natural gas, and coal are examples of stored chemical energy.
   e. Nuclear
6. __________ energy: or heat, is the vibration and movement of the atoms and molecules within substances
   f. nonrenewable
7. One type of energy flow diagrams are called __________ Diagrams.
   g. power
8. __________ fuels provide around 66% of the worlds electrical power and meet 95% of the worlds total energy demands.
   h. Thermal
9. The designed world is the product of a design process, which provides ways to turn __________ - materials, tools and machines, people, information, energy, capital, and time - into products and services
   i. Nuclear
10. Nuclear power is also considered a __________ energy resource.
    j. forms
11. The flow of energy within any system can be documented using energy flow __________ .
    k. Electrical
12. __________ power plants take advantage of the downward flow of water to turn the blades of a turbine.
    l. Fossil
13. __________ energy resources include water, solar and wind.
    m. diagrams
14. The heat required to produce steam, which turns the turbine is created using a process called __________ , where atoms split and release energy in the form of heat.
    n. chemical
15. __________ resources include fossil fuels such as coal, oil, and natural gas.
    o. resources
16. First Law of Thermodynamics—Energy cannot be created or destroyed, it can be _________ from one form to another.

17. _________ energy (light): is electromagnetic energy that travels in transverse waves

18. _________ energy: is energy stored in the nucleus of an atom the energy that holds the nucleus together.

19. Solar power plants generate electricity by converting the _________ energy from sunlight to electrical using specific materials within the solar panel.

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23. Oil and Coal _________ plants produce harmful environmental emissions.

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25. The major _________ of energy are: thermal, radiant (light), electrical, mechanical, chemical, and nuclear.