UMS 8th Grade 3rd Quarter Assessment Energy & Natural Resources

SY2017-2018

1. Which of the following is *not* a fossil fuel?
   1. Coal
   2. Wood
   3. Oil
   4. Natural Gas
2. Wind and water energy are both indirect forms of
   1. Nuclear energy
   2. Electrical energy
   3. Solar energy
   4. Geothermal energy
3. Which of the following is *not* a biomass fuel?
   1. Methane
   2. Gasohol
   3. Hydrogen
   4. Sugar-cane wastes
4. The particle used to start a nuclear fission reaction is a(n)
   1. Neutron
   2. Nucleus
   3. Proton
   4. Atom
5. A part of a nuclear power plant that undergoes a fission reaction is called a
   1. Turbine
   2. Control rod
   3. Heat exchanger
   4. Fuel rod.

True or False: If the statement is true, write true. If it is false, change the underlined word or words to make the statement true.

1. Products made from petroleum are called hydrocarbons.
2. The process of burning a fuel for energy is combustion.
3. Geothermal energy is an example of a nonrenewable energy source.
4. Solar energy is harnessed to run calculators using solar satellites.
5. Most of the energy used in the United States today comes from fossil fuels.

Level 3

Use the Table below to answer Questions 1-2

|  |  |  |  |
| --- | --- | --- | --- |
| Depth (m) | Temp C | Depth (m) | Temp |
| 0 | 19 | 1,000 | 9 |
| 200 | 18 | 1,200 | 5 |
| 400 | 18 | 1,400 | 5 |
| 600 | 16 | 1,600 | 4 |
| 800 | 12 | 1,800 | 4 |

1. Graphing: INSERT (use google sheets) a line graph using the data in the table. Plot depth readings on the horizontal axis and temperature readings on the vertical axis. (5 points)
2. Drawing Conclusions: Use your graph to identify the temperature range in the transition zone. (5 points)

Use the table below to answer questions 3-6

|  |  |  |
| --- | --- | --- |
| Source of Energy | Energy Units Produced 1973 | Energy Units Produced 1995 |
| Coal | 1498 | 2,179 |
| Gas | 964 | 1,775 |
| Hydroelectric | 107 | 242 |
| Nuclear | 54 | 646 |
| Oil | 2,730 | 3,228 |
| Total Energy Units: | 5,353 | 8,070 |

1. Interpreting Data: How did total energy production change from 1973 to 1995?
2. Calculating: What percentage of total world energy production did nuclear power provide in 1973? In 1995?
3. Classifying: Classify the different types of energy as renewable or nonrenewable. How important was renewable energy in 1995?
4. Drawing Conclusions: Which energy source was the most important in 1995?

Level 4

Choose the best graphic organizer/chart and apply it to best explain the data below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mineral | Hardness | Density (g/cm3) | Luster | Streak |
| Corundum | 9.0 | 4.0 | Glassy | White |
| Quartz | 7.0 | 2.6 | Glassy | White |
| Magnetite | 6.0 | 5.2 | Metallic | Black |
| Copper | 2.8 | 8.9 | Metallic | Red |
| Galena | 2.5 | 7.5 | Metallic | Lead gray |
| Talc | 1.0 | 2.8 | Pearly | White |