WHAT’S YOUR ENERGY KNOWLEDGE?

NAME ____________________________

We use energy all day, every day. By 2050, the worldwide demand for energy is expected to double. Where will that energy come from? Take this quiz to find out how much you know about different kinds of energy sources—those we use now, and those we may use in the future.

1. These cells convert sunlight into electricity.
   A. super cells  
   B. turbine cells  
   C. photovoltaic cells  
   D. polyester cells

2. Which device produces electricity from hydrogen?
   A. wind turbine  
   B. fuel cell  
   C. solar panel  
   D. nuclear reactor

3. The 3-D Seismic Survey is a process that uses seismic waves (waves that travel through the Earth). Geologists (scientists who study the structure of the Earth) send seismic waves deep underground. When the waves hit something reflective, they bounce back up. The longer it takes the waves to bounce back up, the further down that reflective item is. Geologists can use this process to locate.
   A. a site of high wind speed on which to build a wind farm  
   B. a site of possible oil deposits in the Earth’s subsurface  
   C. a river or waterfall with sufficient kinetic energy to generate electricity  
   D. none of the above

4. Ethanol is a biofuel. It can be made from.
   A. wheat  
   B. rice  
   C. corn  
   D. all of the above

5. Which of the following nonrenewable fuels did not form from plants and animals?
   A. coal  
   B. natural gas  
   C. oil  
   D. none of the above

6. What device inside the wind turbine produces electricity?
   A. blade  
   B. tower  
   C. gearbox  
   D. generator

7. A possible source for future energy, is the most abundant element in the universe.
   A. carbon  
   B. hydrogen  
   C. oxygen  
   D. none of the above

(cont.)
8. What is the most efficient way to generate electricity?
   A. solar power  C. biofuel power
   B. hydropower  D. fossil fuel power

9. Tidal energy involves filling reservoirs on the shore then releasing the water during low tide. The highest energy producing plant of this kind is located in France and powers 250,000 homes. Tidal energy is a form of:
   A. solar power  C. biofuel power
   B. hydropower  D. fossil fuel power

10. Which of the following could not exist without energy from the sun?
    A. wind power  C. neither
    B. hydropower  D. both

11. Which country has the highest reserve of natural gas?
    A. China  C. India
    B. United States  D. Russia

12. Which country consumes the most energy?
    A. China  C. India
    B. United States  D. Russia

13. The advantage of Liquefied Natural Gas (LNG) is that.
    A. it is easier to transport than natural gas
    B. it occupies less space than natural gas
    C. it can be stored more easily than natural gas
    D. all of the above

14. In 1882, Thomas Edison started the first power station in New York City. It supplied electricity for lighting households. It was powered by.
    A. biofuel  C. dirt
    B. coal  D. oil

**Challenge:** Have a “town meeting” about energy. With your group, convince the rest of the “townspeople” to accept your energy source for the town. Research your fuel of choice (hydrogen, biofuel, solar, wind, etc.) so you are knowledgeable on the topic and persuasive in your speech.

Visit [www.shell.us/energizeyourfuture](http://www.shell.us/energizeyourfuture) for more information about energy resources and history.

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