

**Skills Worksheet**

**Directed Reading A**

**Section: Alternative Resources**

1. What are two reasons why people need alternative energy resources rather than continuing to use fossil fuels?

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**SPLITTING THE ATOM: FISSION**

2. The energy released by a fission or fusion reaction is  
 a. megawatt energy.  
 b. chemical energy.  
 c. British Thermal Energy.  
 d. nuclear energy.
3. What is the common unit of measurement for all forms of energy?  
 a. megawatt  
 b. joule  
 c. British Thermal Unit  
 d. barium-142
4. The process by which the nuclei of radioactive atoms are split into two or more smaller nuclei is called \_\_\_\_\_.
5. What is one reason people do not use nuclear energy more often as a replacement for fossil fuels?

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**COMBINING ATOMS: FUSION**

6. The joining of two or more nuclei to form a larger nucleus is \_\_\_\_\_.
7. Name one place where fusion happens naturally.
8. What is the main advantage of fusion?

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**Directed Reading A continued**

9. What is the main disadvantage of fusion?

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**CHEMICAL ENERGY**

10. Fuel cells produce chemical energy by combining  
 a. carbon and oxygen.  
 b. hydrogen and oxygen.  
 c. carbon and hydrogen.  
 d. carbon, hydrogen, and oxygen.
11. What is the only by-product of fuel cells?  
 a. smog  
 b. methane  
 c. radioactive waste  
 d. water
12. The energy released when a chemical compound reacts to produce a new compound is called \_\_\_\_\_.

**SOLAR ENERGY**

13. Which of the following is a common use for solar collectors?  
 a. powering cars  
 b. turning windmills  
 c. heating water  
 d. lighting homes
14. The energy received by Earth from the sun in the form of radiation is \_\_\_\_\_ energy.
15. Is solar energy a renewable or nonrenewable resource?
16. What are solar cells and solar panels used for?
17. What is one disadvantage to solar energy?