

Period

Date

4.1 CHEMICAL ENERGY AND ATP

Choose the letter of the best answer.

- **1.** Which of the following statements is true for *all* cells?
 - **a.** They use solar energy.
 - **b.** They use photosynthesis.
 - **c.** They use chemical energy.
 - d. They use chemosynthesis.
- **2.** Which phrase best describes the function of the ATP molecule?
 - **a.** stores energy
 - **b.** carries energy
 - c. absorbs energy
 - d. converts energy
 - **3.** Where does the chemical energy to produce ATP come from?
 - **a.** the conversion of ATP to ADP
 - **b.** the use of chemicals from the environment to build sugars
 - c. the addition of a phosphate group to ATP
 - d. the breakdown of carbon-based molecules into smaller molecules
 - **4.** Energy is released from an ATP molecule for cellular processes when it
 - **a.** has a phosphate group removed.
 - **b.** stores an extra phosphate group.
 - c. converts a phosphate group to ADP.
 - **d.** produces a sugar molecule.
 - **5.** Which of the following is the source of energy used in chemosynthesis?
 - **a.** sunlight
 - **b.** heat from hydrothermal vents
 - **c.** chemical compounds
 - **d.** amino acids