

## 7

**COMPOUNDS AND REACTIONS** from the *Elements of Chemistry Series*  
**Post-Test**

**Directions:** Fill in the blank with the appropriate term from the list below.

anode  
cathode  
chemical reaction  
electrochemistry

electron  
element  
ionic bond  
mass

mixtures  
molecules  
orbitals  
oxidation

polarity  
proton  
radiation  
reduction

1. When there is a change in the chemical composition of a substance, it is called a \_\_\_\_\_.
2. When two or more ions are held together by the electrical attractions between them it is called an \_\_\_\_\_.
3. A covalent bond is when electrons are shared between atoms. These bonds are usually called \_\_\_\_\_.
4. In a battery, the place where oxidation, or the giving up of electrons, occurs is called the \_\_\_\_\_.

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**True or False**

**Directions:** Fill in the blank with True or False. If the statement is false, change it to make the statement true. Rewrite the true statement in the space provided.

5. \_\_\_\_\_ Nuclear changes occur when electrons move from atom to atom.
6. \_\_\_\_\_ Ionic bonds occur when the electrons of one atom merge with the electrons of another atom.
7. \_\_\_\_\_ When electrons are shared between atoms, they form covalent bonds, or molecules.
8. \_\_\_\_\_ A chemical reaction only occurs when molecules are formed.
9. \_\_\_\_\_ Oxidation-reduction, or redox reactions, occur when molecules merge.

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**Essay Section**

**Directions:** Answer the following questions in complete sentences. Use the back of this page or a separate sheet of paper to complete your answers.

10. Explain how ionic bonds are formed.
11. Explain how covalent bonds are formed.
12. Explain the term chemical reaction.