

## SECTION

## 2

## Reinforcement

## How Elements Bond

**Directions:** Correctly complete the following paragraphs using terms from the list below. Some terms may not be used, and some terms may be used more than once.

electrons	losing	positive	covalent
molecules	protons	gaining	negative
random	gains	regular	ionic
nonpolar	ions	polar	sharing
	neutral		
	loses		

Elements in Group 1 become more stable by 1. \_\_\_\_\_ an electron. These elements form 2. \_\_\_\_\_ ions because they have more 3. \_\_\_\_\_ than 4. \_\_\_\_\_. Chlorine readily 5. \_\_\_\_\_ an electron, forming a 6. \_\_\_\_\_ ion. The attraction between sodium ions and chlorine ions forms 7. \_\_\_\_\_ bonds. In sodium chloride, the ions are lined up in a 8. \_\_\_\_\_ pattern.

Unlike sodium and chlorine, some atoms become more stable by sharing 9. \_\_\_\_\_, forming 10. \_\_\_\_\_ rather than charged 11. \_\_\_\_\_. The bonds in a molecule of oxygen are 12. \_\_\_\_\_ 13. \_\_\_\_\_ bonds, while the bonds in a molecule of water are 14. \_\_\_\_\_ 15. \_\_\_\_\_ bonds.

**Directions:** Next to each formula, write the number of atoms of each element found in one unit of the compound.

16. potassium iodide, KI \_\_\_\_\_
17. sodium sulfide, Na<sub>2</sub>S \_\_\_\_\_
18. silicon dioxide, SiO<sub>2</sub> \_\_\_\_\_
19. carbonic acid, H<sub>2</sub>CO<sub>3</sub> \_\_\_\_\_

**Directions:** Complete the following activity.

20. Hydrogen combines with sulfur much like hydrogen combines with oxygen. Draw an electron dot diagram showing hydrogen combined with sulfur and write the chemical formula below.