

Section Review

Grouping the Elements

USING KEY TERMS

Complete each of the following sentences by choosing the correct term from the word bank

noble gas

alkaline-earth metal

halogen

alkali metal

1. An atom of a(n) _____ has a full set of electrons in its outermost energy level.
2. An atom of a(n) _____ has one electron in its outermost energy level
3. An atom of a(n) _____ tends to gain one electron when it combines with another atom.
4. An atom of a(n) _____ tends to lose two electrons when it combines with another atom.

UNDERSTANDING KEY IDEAS

- _____ 5. Which group contains elements whose atoms have six electrons in their outer level?
- | | |
|------------|-------------|
| a. Group 2 | c. Group 16 |
| b. Group 6 | d. Group 18 |
6. What are two properties of the alkali metals?

7. What causes the properties of elements in a group to be similar?

8. What are two properties of the halogens?

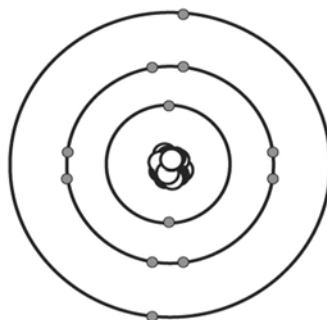
9. Why is hydrogen set apart from the other elements in the periodic table?

Section Review *continued*

10. Which group contains elements whose atoms have three electrons in their outer level?

INTERPRETING GRAPHICS

11. Look at the model of an atom below. Does the model represent a metal atom or a nonmetal atom? Explain your answer.



CRITICAL THINKING

12. **Making Inferences** Why are neither the alkali metals nor the alkaline-earth metals found uncombined in nature?

13. **Making Comparisons** Compare the element hydrogen with the alkali metal sodium.
