

ACTIVITY ■ Classification of Elements: The Periodic Table**Identifying Unknown Elements**

Use the periodic table _____ of the textbook to identify the elements described in the statements below.

1. This element is in the same family as lead, and it has fewer protons than sodium.

2. This element has an atomic number that is one greater than platinum.

3. This element has the most protons of any element in Group 15.

4. This element has more than 50 but less than 75 protons, and it is in Group 17.

5. This Group 2 element has fewer protons than bromine, but more protons than sulfur.

6. This element has the lowest atomic number of any Group 16 element.

7. This element has an atomic number that is double the atomic number of silicon.

8. This element has more valence electrons than oxygen, fewer valence electrons than neon, more protons than sodium, but fewer protons than argon.

9. This element has an atomic number lower than that of aluminum and one less valence electron than the Group 16 elements.

10. This element is in Group 1 and has a higher atomic number than chlorine, but a lower atomic number than bromine.

ACTIVITY ■ Classification of Elements: The Periodic Table**Interpreting the Periodic Table**

Examine the hypothetical periodic table shown below. Use this periodic table to answer the questions that follow.

K													
											J		
F													
			D			R							

- Which pair of elements has the same number of valence electrons?

- Which pair of elements is in the same period?

- Which pair of elements is in the same family?

- Which element has the smallest atomic number?

- Which elements would be classified as metals?

- If the atomic number of Element D is 20, then what is the atomic number of element R?
