

Section Review

Arranging the Elements

USING VOCABULARY

1. Write an original definition for *periodic*.

UNDERSTANDING CONCEPTS

2. **Comparing** What is the difference between a period and a group on the periodic table?

3. **Identifying** Identify the elements in the compound NaCl.

4. **Describing** What is atomic number, and what relationship does it have to the periodic table?

Section Review *continued*

5. Classifying What class of elements makes up the groups on the right side of the periodic table?

6. Describing On the basis of what property did Mendeleev position the elements on the periodic table?

CRITICAL THINKING

7. Identifying Relationships An atom that has 117 protons in its nucleus has not yet been made. Once this atom is made, to which period and group will element 117 belong? Explain your answer.

Section Review *continued*

INTERPRETING GRAPHICS

Use the image below of part of a periodic table to answer the next three questions.

1	1 H 1.0079 Hydrogen				
2	3 Li 6.941 Lithium	4 Be 9.01218 Beryllium			
3	11 Na 22.98977 Sodium	12 Mg 24.305 Magnesium			
4	19 K 39.0983 Potassium	20 Ca 40.078 Calcium	21 Sc 44.955910 Scandium	22 Ti 47.867 Titanium	

8. Making Comparisons To which region of the periodic table does this image correspond?

9. Making Comparisons How does the information shown compare with the information shown in the periodic table in your book?

10. Applying Concepts Can you determine the number of protons in an atom of sodium from this image? Explain your reasoning.

Section Review *continued*

CHALLENGE

11. Applying Concepts Locate sodium, lithium, and magnesium on the periodic table. Identify the group and period for each. Are the properties of sodium more like the properties of lithium or of magnesium? Explain your answer.

Section Review

Grouping the Elements

USING VOCABULARY

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

noble gases

alkaline-earth metals

halogens

alkali metals

1. Elements in the leftmost column of the periodic table are _____.
Elements in the rightmost column of the periodic table are _____.
2. Elements that are very reactive nonmetals are _____.

UNDERSTANDING CONCEPTS

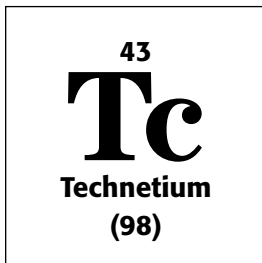
3. **Listing** List two properties of the alkali metals.

4. **Describing** Explain why the properties of the elements in a group are usually similar.

Section Review *continued*

INTERPRETING GRAPHICS

Use the image below from the periodic table to answer the next two questions.



5. Classifying Could this element be classified as a noble gas? Explain your answer.

6. Analyzing What can you tell about the properties of this element?

CRITICAL THINKING

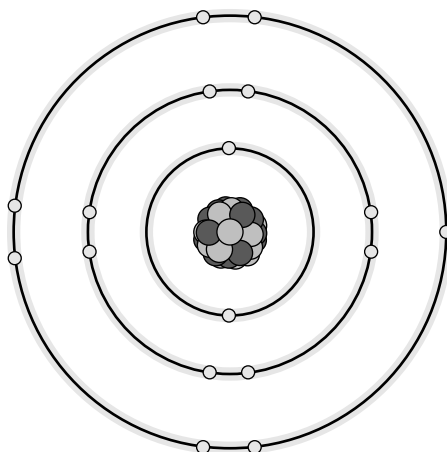
7. Applying Concepts Why would you not be able to make jewelry out of sodium?

8. Identifying Relationships Identify the region on the periodic table where nonmetals are found. Does this region contain the noble gases?

Section Review *continued*

INTERPRETING GRAPHICS

Use the model of the atom below to answer the next question.



9. Applying Concepts Does the model represent a metal atom or a nonmetal atom? Explain your answer.

CHALLENGE

10. Making Inferences In general, the noble gases were discovered later than many of the other elements. Suggest a reason for this fact.
