Section 5.2 The Modern Periodic Table (pages 130–138)

This section explains the organization of the modern periodic table and discusses the general properties of metals, nonmetals, and metalloids.

Reading Strategy (page 130)

Previewing Before you read, complete the table by writing two questions about the periodic table on pages 132–133. As you read, write answers to your questions. For more information on this reading strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

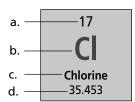
Questions About the Periodic Table			
Question	Answer		

The Periodic Law (pages 131-133)

- **1.** Is the following sentence true or false? In the modern periodic table, elements are arranged by increasing number of protons.
- 2. Explain why the number of elements per period varies. _____
- **3.** Properties of elements repeat in a predictable way when atomic numbers are used to arrange elements into groups. This pattern of repeating properties is called the ______.

Atomic Mass (page 134)

4. Label the four types of information supplied for chlorine in the diagram.



- a. _____
- b. _____
- C. _____
- d. _____

Name	Class	Date	
Chapter 5 The Periodic	Table		
5. Define atomic mass			
6. Circle the letter of each atom.	h sentence that is true about	a carbon-12	
a. It has 6 protons and	d 6 neutrons.		
b. Scientists assigned carbon-12 atom.	a mass of 6 atomic mass uni	its to the	
c. It is used as a stand	dard for comparing the mass	ses of atoms.	
d. An atomic mass ur carbon-12 atom.	nit is defined as one twelfth t	the mass of a	
C C	nce true or false? Most eleme re isotopes	ents exist as a	
8. The mass of an atom of the mass of an atom of	of chlorine-37 is f chlorine-35.	than	
C C	nce true or false? All values a ed average	1 ,	
Classes of Element 10. Name the three categoron their general properations as a contract of the contract of t	ories into which elements are erties. 	e classified based	
	nce true or false? All metals 1 ay	react with	
12. An important property form compounds	y of transition elements is th	eir ability to	
13. Circle the letter of each	h sentence that is true about	nonmetals.	
a. Nonmetals are poor conductors of heat and electric current.			
b. Many nonmetals as	re gases at room temperatur	e.	
c. Some nonmetals ar react at all.	re extremely reactive and oth	ners hardly	
d. Nonmetals that are	e solids tend to be malleable.		
Variation Across a	Period (page 138)		
	left to right, the elements bed metallic and	come	
nonmetallic in their pr			
15. Circle the letter of each	h Period 3 element that is hig	ghly reactive.	
a. sodium	b. silicon		
c. chlorine	d. argon		