TEACHING TRANSPARENCY WORKSHEET



The s-, p-, d-, and f-Block Elements

Use with Chapter 6, Section 6.2

1.	What are the four sections, or blocks, of the periodic table?
2.	What does each block represent?
3.	What do elements in the s-block have in common?
4.	What is the valence electron configuration of each element in group 1?
5.	What is the valence electron configuration of each element in group 2?
6.	Why does the s-block span two groups of elements?
7.	Why does the p-block span six groups of elements?
8.	Why are there no p-block elements in period 1?
9.	What is the ending of the electron configuration of each element in group 4?
10.	What is the electron configuration of neon?
11.	In what period does the first d-energy sublevel appear?
12.	Why does the d-block span ten groups of elements?
13.	What is the ending of the electron configuration of each element in group 3?
14.	What is the electron configuration of titanium?
15.	In what period does the first f-energy sublevel appear?
16.	Determine the group, period, and block for the element having the electron configuration [Xe]4f ¹⁴ 5d ¹⁰ 6s ² 6p ³ .
	a. group b. period c. block

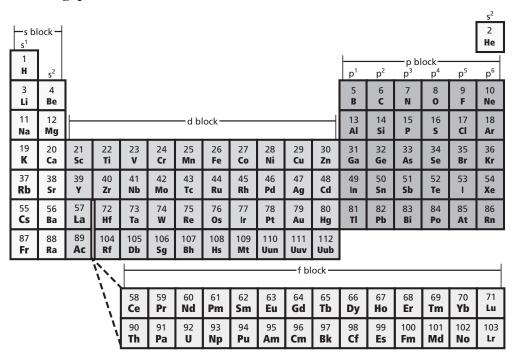


STUDY GUIDE

Section 6.2 continued

In your textbook, read about s-, p-, d-, and f-block elements.

Use the periodic table on pages 178–179 in your textbook and the periodic table below to answer the following questions.



- **18.** Into how many blocks is the periodic table divided?
- **19.** What groups of elements does the s-block contain?
- **20.** Why does the s-block portion of the periodic table span two groups?
- **21.** What groups of elements does the p-block contain?
- **22.** Why are members of group 18 virtually unreactive?
- **23.** How many d-block elements are there?
- **24.** What groups of elements does the d-block contain?
- **25.** Why does the f-block portion of the periodic table span 14 groups?
- ____
- **26.** What is the electron configuration of the element in period 3, group 16?