

Transparency Worksheet

Name _____

Class _____ Date _____

The Periodic Table

1. What is the *modern periodic law*? _____

2. When Mendeleev organized the elements into a periodic table, what did he also predict?

3. (a) In the modern periodic table, the vertical column identifies _____.
(b) The horizontal rows are called _____.
4. Describe five ways that the periodic table is useful to you in your study of chemistry. _____

5. (a) What is meant by *representative elements*? _____
(b) Why are the inner transition metals separated out at the bottom of the periodic table?

6. What is meant by *valence electrons*? _____

Critical Thinking

7. Compare and contrast Mendeleev's periodic table with the modern periodic table. _____

8. Describe the relationship between electron configuration, the arrangement of the elements in the periodic table, and the chemical properties of the elements. To expand your discussion, take any one group from the periodic table and write the electron configuration of three or four elements in this group. What are your observations about the chemical properties of these elements?

