

Name _____ Date _____ Hour _____



Study Guide 3-1

Development of the Periodic Table

Vocabulary Fill In

Use the following word bank to complete the paragraph. You may use your notes from chapter 3-1 as well as your book to help you.

Atomic number	Mendeleev	Mosley	Atomic Mass
Family	Period	Group	Periodic Law
Periodic Table	Metal	Nonmetal	Periodicity

Dmitri Mendeleev developed a chart like arrangement of the elements called the 1. _____. He stated that if the elements were listed in order of increasing 2. _____ their properties repeated in a regular manner. He called this concept 3. _____ and developed what we know today as the 4. _____. The arrangement used today, devised by 5. _____ differs from that of Mendeleev in that the elements are arranged in order of increasing 6. _____. Each horizontal row of elements is called a 7. _____. Each vertical column is called a 8. _____, or because of the resemblance between elements in the same column, a 9. _____. Although today's table was not officially developed by 10. _____, he is still known as the father of the periodic table.

Multiple choice

11. Which of the following is not a periodic phenomenon?
- Rising of the sun
 - Ocean tides
 - Ringling of 1st hour bell
 - Growth of a sunflower

12. The modern periodic table is made of _____ elements.
- 60
 - 92
 - 118
 - 25
13. In the modern periodic table, elements in the same _____ have similar properties.
- Column
 - Row
 - Period
 - Area
14. In the 1860s, chemists could make which of the following statements about the known chemical elements?
- They all had identical properties
 - They all had different properties
 - Some had similar properties
 - They could not be grouped.
15. According to the arrangement of the periodic table. Each element has one more _____ than the element directly to its left.
- Proton
 - Neutron
 - Quark
 - Neutrino
16. Which correctly describes elements in the same group?
- They have the similar properties
 - They have the same number of electrons
 - They have the same atomic mass
 - They must be in the same state of matter
17. Horizontal rows of the periodic table are called _____.
- Clusters
 - Families
 - Groups
 - Periods

Summarize what you now know about the periodic table in a complete paragraph. Your paragraph should be 5-7 sentences. Please use a separate sheet of lined paper. (3pts)