Name _____ Date _____ Class _____

Chapter Review

Atoms, Elements, and the Periodic Table

Part A. Vocabulary Review

Directions: *Match the terms in Column II with the definitions in Column I. Write the letter of the correct term in the blank at the left.*

Column I

_____ 1. weighted average mass of an element

_____ 2. a sample of matter that has the same composition and properties throughout

_____ 3. states that matter is neither created nor destroyed, only changed in form

_____ 4. negatively charged subatomic particle

_____ 5. positively charged central part of the atom

_____ 6. positively charged particle in the nucleus of the atom

_____ 7. uncharged particle in the nucleus of the atom

_____ 8. elements that generally have a shiny or metallic luster

_____ 9. matter made up of only one kind of atom

_____ 10. tells you the number of protons in the nucleus of each atom of an element

_____ 11. anything that has mass and takes up space

_____ 12. atoms of the same element that have different numbers of neutrons

_____ 13. the sum of an atom's protons and neutrons

_____ 14. a small particle that makes up most types of matter on Earth

_____ 15. a pure substance whose smallest unit is made up of atoms of more than one element

_____ 16. formed when two or more substances come together but don't combine to form a new substance

_____ 17. elements that are usually dull in appearance and poor conductors of heat and electricity

_____ 18. elements that have characteristics of both metals and nonmetals

Column II

a. atom

b. atomic mass

c. atomic number

d. compound

e. electron

f. element

g. isotopes

h. law of conservation of matter

i. mass number

j. matter

k. metals

l. metalloids

m. mixtures

n. neutron

o. nonmetals

p. nucleus

q. proton

r. substance

Name

Chapter Review (continued)

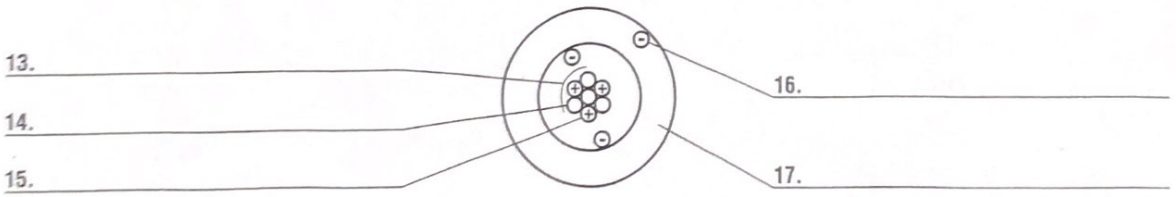
Part B. Concept Review

Directions: *Correctly complete each sentence by underlining the best of the three choices in parentheses.*

1. An element is made up of only one kind of (isotope, atom, plastic).
2. The periodic table lists (common molecules, compounds, elements).
3. Isotopes can have the same (mass number, atomic number, number of subatomic particles).
4. Most elements are (metals, nonmetals, metalloids).
5. On the periodic table, metalloids are found (on the left side, on the right side, between the metals and nonmetals).
6. A (metal, metalloid, nonmetal) has no luster and is a poor conductor.
7. Many (metals, metalloids, nonmetals) can conduct heat and electricity, but they are not the best conductors.
8. The (metals, metalloids, nonmetals) all are malleable, have luster, and are good conductors.
9. The elements in a (mixture, solution, compound) are always combined in the same proportion by mass.
10. The compound ammonia contains three atoms of hydrogen for every atom of nitrogen, so the chemical formula for ammonia is (NH_3, N_3H_3, N_3H).
11. An example of a homogenous mixture is (vegetable soup, air, granite rock).
12. A mixture is heterogenous if (it is made of two compounds, one of its parts is water, you can see its individual parts).

Directions: *Study the following diagram. Then label the atom using the correct terms from the list.*

electron **electron cloud** **neutron** **nucleus** **proton**



Directions: *Classify the following by writing* **matter** *or* **not matter** *in the blank before each item.*

_____ 18. hydrogen

_____ 19. a wish

_____ 20. the sun

_____ 21. any atom

_____ 22. heat

_____ 23. light