

Section 2.1 Matter

12pts

	charge	location	Relative size	Involved in bonding? Yes or No?
Protons				
Neutrons				
Electrons				

Elements and the Periodic Table

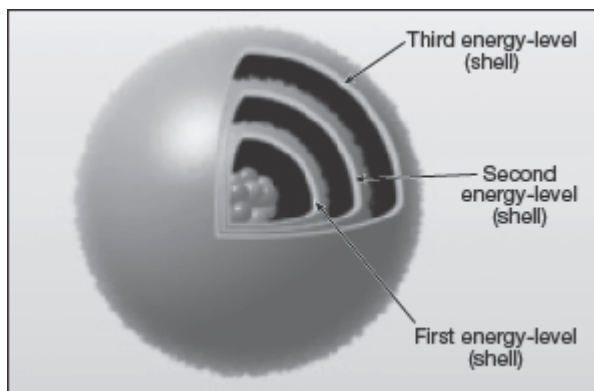
- A substance that cannot be broken down into simpler substances by chemical or physical means is called a(n) _____.
- The document in which elements are organized by their properties is known as the _____.
- Circle the letter of the name for the columns within the periodic table.

a. periods	b. groups
c. metals	d. compounds

Atoms

- What is an atom? _____

- The **atomic number** of boron is 5. What does this tell you about an atom of boron?



- From which energy level in the diagram would atomic particles be transferred to form a compound? _____

Isotopes

7. Is the following sentence true or false? An isotope is an atom that has the same number of protons as usual, but a different numbers of neutrons—so atomic mass changes.
8. Is the following sentence true or false? The total mass of an atom is found by adding the protons and the neutrons.

Why Atoms Bond

9. How do you make a **compound**? _____

10. What is likely to happen to an atom of oxygen that does not contain the maximum number of electrons in its outermost energy level? _____

11. What will an atom do if it DOES have a complete set of electrons in the outermost energy level?

Types of Chemical Bonds

Match each description with its type of chemical bond.

	Description	Chemical Bond
_____	12. <input type="radio"/> when one metal ion shares electrons with another metal ion	a. covalent b. ionic c. metallic
_____	13. <input type="radio"/> when a positive ion is attracted to a negative ion	
_____	14. <input type="radio"/> when one atom shares electrons with another atom	