

Section 4.1

Atomic Theory and Bonding

Before You Read



1. Words to Know

Directions: Match the correct definition to the term on the left.
Scan pages 168 – 180 to find the definitions.

Words to Know	Definition
___ atomic number	A. a pure substance that is composed of two or more atoms combined in a specific way
___ Bohr diagram	B. electrons in the valence shell, which is the outermost shell in an atom that contains electrons
___ compound	C. when certain metal atoms join with certain non-metal atoms, one or more electrons <u>transfer</u> from each atom of the metal to each atom of the non-metal
___ covalent bonding	D. two or more atoms joined together chemically
___ ions	E. an illustration that shows how many electrons are in each shell surrounding the nucleus
___ ionic bonding	F. a diagram that illustrates chemical bonding by showing only an atom's valence electrons and the chemical symbol
___ Lewis diagram	G. same as the term "nuclear charge", it is the term given to the electric charge on the nucleus, and it is simply found by counting the number of protons
___ molecule	H. non-metal atoms overlap slightly, and one unpaired electron from each atom will pair together to be <u>shared</u>
___ valence electrons	I. when atoms gain or lose electrons they become these electrically charged particles

2. Predicting the Main Ideas of Section 4.1

Directions: Scan pages 168 – 180 looking at the pictures and titles within this section. Predict five things you think you will learn in this section.

1. _____

2. _____

3. _____

4. _____

5. _____

