Name: _____ Group: _____ Date: _____

CONCEPT REVIEW 5

Molecules and ions

EST

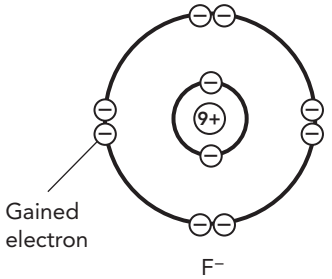
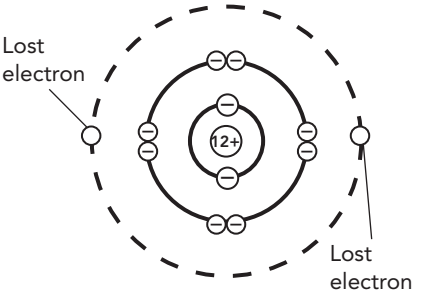
PAGES 40–48

Complete this concept review handout and keep it as a record of what you have learned.

Definitions

- A molecule is _____
- An ion is _____
- EST A polyatomic ion is _____
- EST A chemical bond is _____
- EST An ionic bond is _____
- EST A covalent bond is _____

Some characteristics of ions

	Negative ion	Positive ion
Loss or gain of electrons	_____	_____
Number of electrons to protons		
Charge		
Representation according to the Rutherford-Bohr atomic model	 F^-	 Mg^{2+}

Name: _____ Group: _____ Date: _____

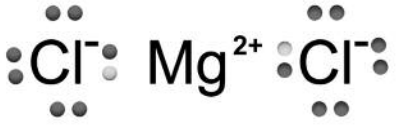
Tendency to gain or lose electrons for group A elements, and examples of possible ions

Group number	I A	II A	III A	IV A	V A	VI A	VII A	VIII A
Number of valence electrons								
Tendency		Lose 2 e^-						
Example of possible ion			B^{3+}					

EST Examples of common polyatomic ions

Chemical formula	Name	Chemical formula	Name
CH_3COO^-		NH_4^+	
HCO_3^-		CO_3^{2-}	
ClO_3^-		CrO_4^{2-}	
OH^-		NO_3^-	
NO_2^-		PO_4^{3-}	
SO_4^{2-}		SO_3^{2-}	

EST Types of chemical bonds



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