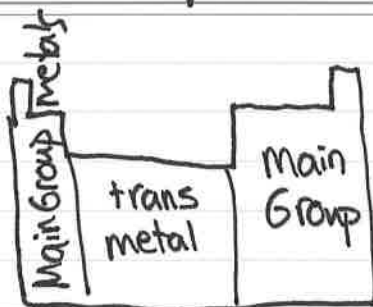


## EOC Unit 4 Concepts

## 1. Element Groups



## 2. Classification of compounds

	Ionic	Covalent
Type 1	MGM & MGNM	two nonmetals
Type 2	MGM & PAI	
Type 3	TM & NM	
Type 4	TM & PAI	
exceptions Zn, Ag, Pb, Sn, Bi		

## 3. Rules for naming

Type 1	$Mg_3N_2$	metal: proper name nonmetal: change end -ide magnesium nitride
Type 2	$NaC_2H_3O_2$	name metal & PAI sodium acetate
Type 3	$CuBr_2$	TM: use Roman numeral for charge nonmetal: same as above Copper (II) Bromide
Type 4	$FeSO_4$	TM: use Roman numeral PAI: state name Iron (II) sulfate
Exception		Ag/Zn no Roman numeral Silver Chloride Pb/Sn/Bi need Roman numeral Lead (II) iodide
Covalent		use greek prefixes diphosphorous hepta sulfide

#### 4. Rules for writing formula

Type 1 Sodium Chloride

Compound neutral use subscripts accordingly  
NaCl

Type 2 Magnesium Chlorate

Same  
 $Mg(ClO_3)_2$

Type 3 Nickel (II) Chloride

(II) = charge  
 $NiCl_2$

Type 4 Cobalt (II) nitrate

Same  
 $Co(NO_3)_2$

Exceptions Zinc Oxide

Zn always +2  
ZnO

Bismuth (III) Sulfide

(III) = +2  
Bi<sub>2</sub>S<sub>3</sub>

Covalent Dinitrogen pentoxide

Greek prefix is subscript  
 $N_2O_5$