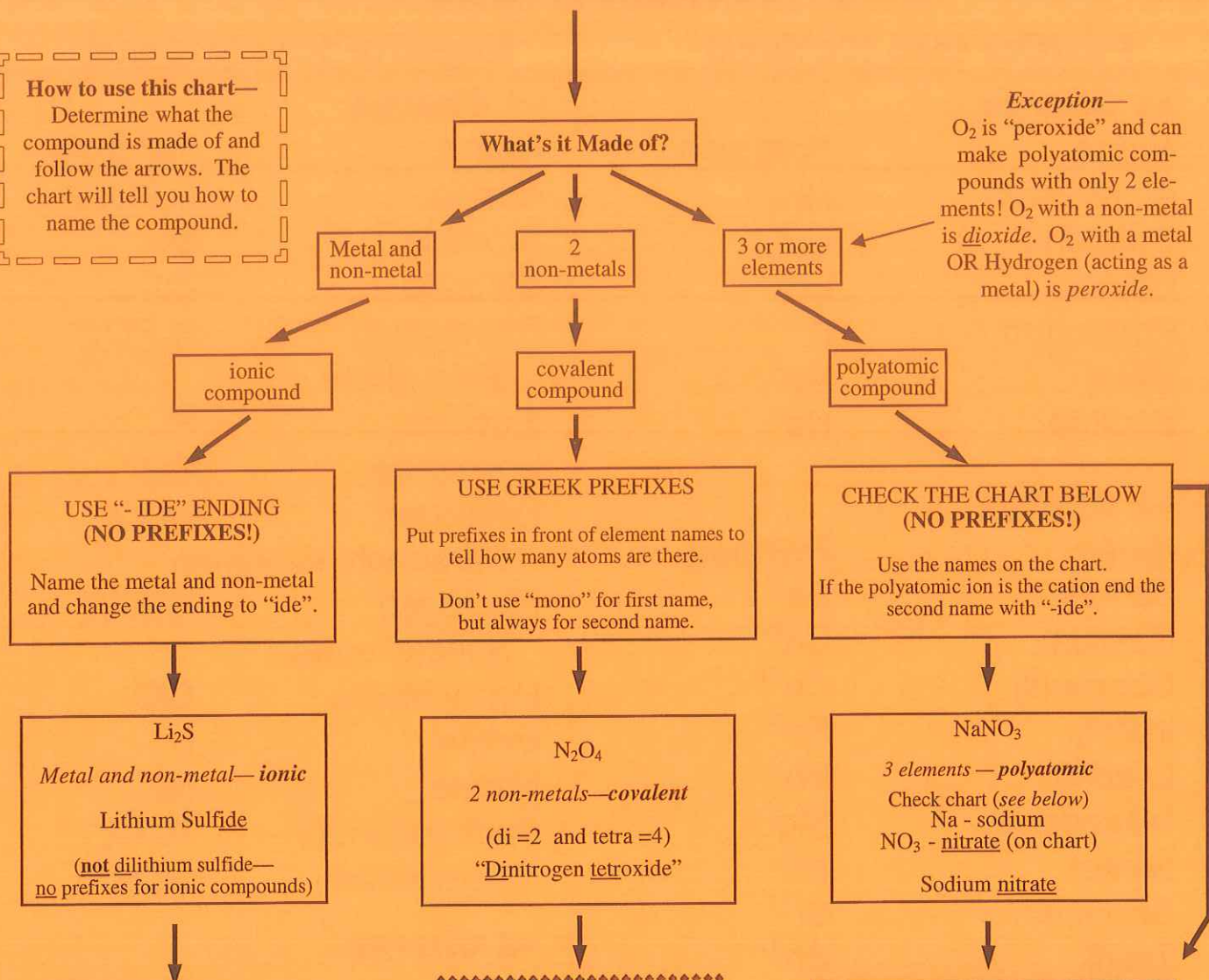


Name: _____
 Period: _____

Naming Compounds

How to use this chart—
 Determine what the compound is made of and follow the arrows. The chart will tell you how to name the compound.

Exception—
 O₂ is "peroxide" and can make polyatomic compounds with only 2 elements! O₂ with a non-metal is *dioxide*. O₂ with a metal OR Hydrogen (acting as a metal) is *peroxide*.



Why are ionic compounds so easy to name? Because most ionic compounds can only form one way, using the oxidation numbers. In covalent compounds, though, non-metals can sometimes combine in multiple ways (carbon monoxide; carbon dioxide). So, covalent compounds use prefixes.

Greek Prefixes	
Mono - 1	Hexa - 6
Di - 2	Hepta - 7
Tri - 3	Octa - 8
Tetra - 4	Nona - 9
Penta - 5	Deca - 10

Polyatomic Ions		
Oxidation #	Name	Formula
1+	ammonium	NH ₄ ⁺
1-	acetate	C ₂ H ₃ O ₂ ⁻
2-	carbonate	CO ₃ ²⁻
2-	chromate	CrO ₄ ²⁻
1-	hydrogen carbonate	HCO ₃ ¹⁻
1+	hydronium	H ₃ O ⁺
1-	hydroxide	OH ¹⁻
1-	nitrate	NO ₃ ¹⁻
2-	peroxide	O ₂ ²⁻
3-	phosphate	PO ₄ ³⁻
2-	sulfate	SO ₄ ²⁻
2-	sulfite	SO ₃ ²⁻

Transition Metals Can Have More Than One Oxidation Number

Iron (II) has an oxidation number of 2+
 Iron (III) has an oxidation number of 3+.
 When naming them you must specify WHICH ONE.

FeO—Iron (II) oxide
 Fe₂O₃— Iron (III) oxide

Hints to remember prefixes:

Monorail – one rail train
Monocle – glasses for one eye with only a single lens.
Dilemma – struggle between 2 choices.
Tricycle – 3 wheels
Pentagon – 5 five sided military building in Washington, D.C.
Octopus – 8 legs
Decade – 10 years