

Name: _____

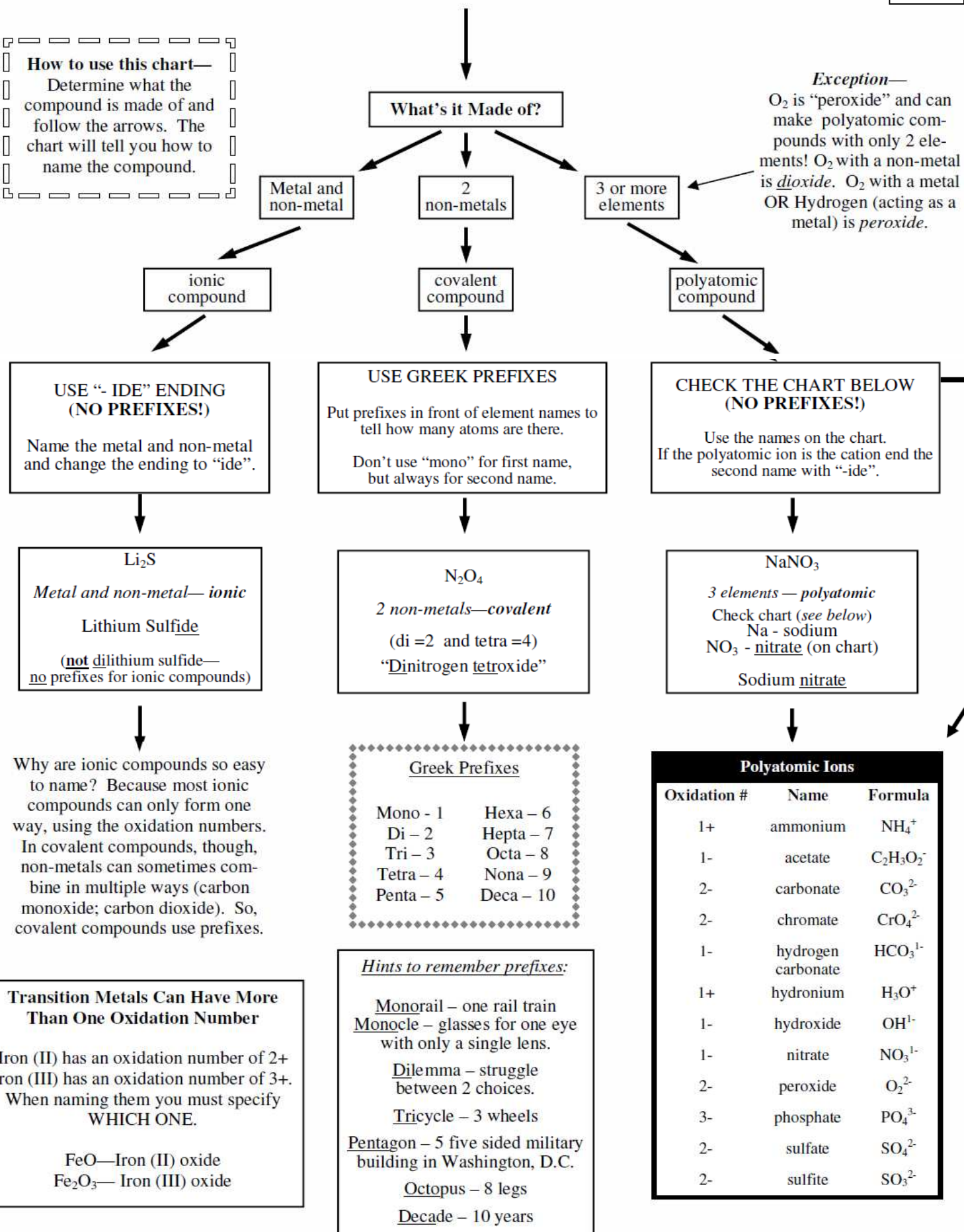
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Naming Compounds

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*.

<u>Metal or Non-metal?</u>	<u>Ionic or Covalent?</u>	<u>Name These Ionic Compounds</u>	<u>Use the Polyatomic Ion Chart on the front of the worksheet to name these Polyatomic Ions:</u>
<i>M N</i> Iron Oxide	<u>Ionic</u>	MgF ₂ Magnesium Fluor- <u>ide</u>	HCO ₃ ¹⁻ <u>Hydrogen carbonate</u>
Barium Chloride	_____	Li ₂ O Lithium Ox- _____	SO ₄ ²⁻ _____
Carbon Dioxide	_____	NaCl Sodium Chlor- _____	O ₂ ²⁻ _____
Magnesium Oxide	_____	K ₂ O Potassium Ox- _____	SO ₃ ²⁻ _____
Aluminum Fluoride	_____	CaS _____ Sulf- _____	NO ₃ ¹⁻ _____
Nitrogen Tribromide	_____	BeI ₂ _____ Iod- _____	NH ₄ ⁺ _____
Chromium Fluoride	_____	AlBr ₃ _____ Brom- _____	CrO ₄ ²⁻ _____
Potassium Oxide	_____	CaF ₂ _____	OH ¹⁻ _____
		MgO _____	PO ₄ ³⁻ _____
		LiCl _____	CO ₃ ²⁻ _____

<u>Define these Greek Prefixes</u>	<u>1. CO₂</u>	<u>A. Carbon monoxide</u>	<u>Name These Covalent Compounds</u>
Penta = _____	2. C ₂ O ₄	B. Carbon dioxide	Si ₂ O ₃ Disilicon ____oxide
Nona = _____	3. C ₃ O ₅	C. Dicarbon monoxide	N ₃ Cl ₄ ____nitrogen tetrachloride
Mono = _____	4. CO	D. Tricarbon pentoxide	SO ₂ Sulfur ____oxide
Octa = _____	5. C ₂ O	E. Dicarbon tetroxide	PO ₅ Phosphorous ____ox ____
Tri = _____	6. CO ₈	F. Carbon octoxide	S ₂ F ₄ ____sulfur ____fluor ____
Tetra = _____			
Hexa = _____			
Hepta = _____			
Deca = _____			
Di = _____			

<u>Name these Polyatomic Compounds (Remember — no prefixes!)</u>	<u>Classify and Name These Compounds</u>	
	<u>Ionic, Covalent, or Polyatomic</u>	<u>Name</u>
CaSO ₄ Calcium _____	1. BaCl ₂ <u>Ionic</u>	<u>Barium chloride</u>
K ₂ CO ₃ _____ carbonate	2. CO _____	_____
CuNO ₃ Copper (I) _____	3. Ag ₂ O _____	_____
NH ₄ Cl _____ chloride	4. K ₂ SO ₄ _____	_____
Mg(NO ₃) ₂ Magnesium _____	5. MgBr ₂ _____	_____
K ₃ PO ₄ Potassium _____	6. SO ₃ _____	_____
Li ₂ (CrO ₄) Lithium _____	7. P ₂ O ₄ _____	_____
Mg(OH) ₂ M _____ H _____	8. Be(CrO ₄) _____	_____
Al(PO ₄) A _____ P _____	9. LiF _____	_____
K(NO ₃) _____	11. CO ₂ _____	_____
Ca ₂ SO ₃ _____	12. OF ₂ _____	_____