

STATION 1

CLASSIFYING ELEMENTS AND COMPOUNDS

Identify the following elements and compounds using the words provided:

Ionic compound, covalent compound, multivalent metal, polyatomic ion, metal ion, non-metal ion

1. Chromium _____
2. ScCl_3 _____
3. SF_6 _____
4. Neon _____
5. Nitrate _____
6. Ammonium _____
7. Vanadium _____
8. NO _____
9. Calcium chloride _____
10. Dihydrogen monohydride _____
11. Cobalt _____
12. Cyanide _____
13. Phosphide _____
14. Tungsten _____
15. Palladium _____

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STATION 2
SUBATOMIC PARTICLES

Element Name	Element Symbol (charge!)	Atomic Number	Number of Protons	Number of Electrons	Number of Neutrons	Family Name
Sodium ion						
Bromine ion						
	Kr					
	Ca ²⁺					
		54		54		
Barium ion						
	F ⁻					

A **metal** forms a _____ (cation/anion) with a _____ (positive/negative) charge by _____ (giving/receiving) an electron

A **non-metal** forms a _____ (cation/anion) with a _____ (positive/negative) charge by _____ (giving/receiving) an electron

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STATION 3
BOHR MODELS

Before bonding: draw **atoms**

Na Cl	O F F

After bonding: draw **compounds/molecules**

NaCl	OF ₂
Ionic / Covalent ? (circle one)	Ionic / Covalent ? (circle one)

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STATION 4
NAMING COMPOUNDS

Write the names of these ionic or covalent compounds

1. CsBr
2. OF₂
3. CuCl₂
4. Cr₂(CO₃)₃
5. MnO₂
6. LiNO₃
7. P₄Cl₇
8. Mg₃(PO₄)₂
9. FeCl₃
10. Ca(HCO₃)₂

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STATION 5

WRITING FORMULAS FOR COMPOUNDS

Write the formulas of these ionic or covalent compounds

1. Aluminum fluoride
2. Chromium (IV) oxide
3. Nickel (II) sulfate
4. Triphosphorus monobromide
5. Iron (III) phosphate
6. Sulfur tetraiodide
7. Lead (IV) hydroxide
8. Sodium sulfate
9. Nickel (III) acetate
10. Magnesium hypochlorite

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