

Home Instruction Packet for (GENERAL SCIENCE)

MR. AMSHEYUS –GENERAL SCIENCE RESOURCE

In this packet are materials and directions.....

Check your e-mail daily. This work will be graded and counted towards your marking period grade. WORK ASSIGNMENTS and SUBMISSION DATES will be posted on GENESIS. A group e-mail will also be sent the day the assignment is issued and its due date.

I am available to support you during the hours 7:50am-2:50 pm to answer any of your questions. I will be responding to your emails within the hour.

You contact me at: (CAMSHYUS@RPSD.ORG)

<p>Week 1-</p> <p>Lesson 1: Naming and writing binary compounds; determining differences in metals and non-metals reactivity.</p> <p>Objective: Balance binary compounds, name binary compounds from formulas; compare reactivity of metals and non-metals within a group or period.</p> <p>Assessed: Send work submitted by email within 24 hours.</p>	<p>PART 1 (1-5) Write the formula for each binary compound. Balance the binary compounds as necessary. These are Metals combined with Non-metals.</p> <p>PART 2 (6-10) Name the binary formula.</p> <p>PART 3 (11-14) Explain why each of the following statements are true.</p> <p>Directions: Read directions and hints carefully, answer questions. Submit work to camsheyus@rpsd.org</p>
<p>Lesson 2: Writing transition metal compounds</p> <p>Objective: Determine the charge of the transition metal; balance the compound.</p> <p>Assessed: Send work submitted by email within 24 hours.</p>	<p>PART 4 (1-10) Write the formula for the following transition metal compounds.</p> <p>Directions: Read directions and hints carefully, answer questions. Submit work to camsheyus@rpsd.org</p>

<p>Week 2-</p> <p>Lesson 1: Naming Transition metal compounds</p> <p>Objective: Analyze a transition metal compound to determine the charge of the transition metal and apply the proper roman numeral when naming.</p> <p>Assessed: Send work submitted by email within 24 hours.</p>	<p>Part 5 (1-9) Write the formula for the transition metal with non-metal compounds.</p> <p>Directions: Read directions and hints carefully, answer questions. Submit work to camsheyus@rpsd.org</p>
<p>Lesson 2: Naming and writing Non-metal compounds.</p> <p>Objective: Utilize prefixes when naming covalent compounds; utilize prefixes to write covalent formulas.</p> <p>Assessed: Send work submitted by email within 24 hours.</p>	<p>Part 6 (1-8) Name the covalent compound given a formula.</p> <p>Part 7 (9-16) Write the formula for the covalent compound.</p> <p>Directions: Read directions and hints carefully. Submit work to camsheyus@rpsd.org</p>
<p>Week 3-</p> <p>Lesson 1 Review naming and writing compounds</p> <p>Objective: Review of writing and naming ionic, transition, covalent, and ternary (polyatomic) compounds</p> <p>Assessed: Send work submitted by email within</p>	<p>Part 8 UNIT REVIEW (1-15)</p> <p>A review of all information covered in parts 1-7.</p> <p>Directions: Read directions and hints carefully. Submit work to camsheyus@rpsd.org</p>

<p>24 hours.</p> <p>Lesson 2: Formula writing</p> <p>Objective: Interpret chemistry symbols to articulate and write a chemical formula</p> <p>Assessed: Send work submitted by email within 24 hours.</p>	<p>PART 9 Formula writing (1-4)</p> <hr/> <p>Directions: Read directions and hints carefully. Submit work to camsheyus@rpsd.org</p> <hr/> <p>IN THE CASE OF INTERNET FAILURE, A HARD COPY OF YOUR ASSIGNMENT MUST BE SUBMITTED UPON YOUR RETURN</p> <p>POWERPOINT PRESENTATIONS are posted on Genesis for your reference.</p> <hr/>
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PART #1 Writing binary compounds

Directions: Write the formula for each binary compound. Balance the binary compounds as necessary. These are Metals combined with Non-metals.

HINT: find the group, check the charges (+,-) then balance

1. Lithium Bromide _____
2. Magnesium Chloride _____
3. Sodium Sulfide _____
4. Potassium Phosphide _____
5. Calcium Nitride _____

PART #2 Naming binary compounds

Directions: Name the binary formula.

HINT: Always use "ide" when combining a metal with a non-metal

6. K_2S _____
7. $CaCl_2$ _____
8. MgO _____
9. Li_3P _____
10. BeI_2 _____

PART # 3

Directions: Explain why each of the following statements are true:

HINT: Metals with less valance e- are more reactive. The larger the atomic radius of a metal, the more reactive it is.

HINT: NON-Metals with more valance e- are more reactive. The smaller the atomic radius, the more reactive it is.

11. Potassium is a more reactive metal than sodium.

12. Sodium is more reactive metal than magnesium.

13. Fluorine is more reactive nonmetal than sulfur

14. Chlorine is a more reactive nonmetal than sulfur

PART #4

Directions: Write the formula for the following transition metal compounds.

HINT: Roman numerals indicate the charge of the transition metal. Compounds must be balanced.

1. Iron(II) Chloride _____
2. Chromium(VI) Oxide _____
3. Vanadium (V) fluoride _____
4. Copper (II) Chloride _____
5. Lead (IV) Sulfide _____
6. Chromium (VI) Phosphide _____
7. Manganese (IV) Bromide _____
8. Tin (IV) Oxide _____
9. Iron (II) Bromide _____
10. Lead (IV) Oxide _____

PART #5

Directions: Write the formula for the transition compound

HINT: Remember that transition metals can have multiple oxidation states (charges), so you are required to indicate the appropriate oxidation state in parenthesis using roman numerals when naming them. You must use the subscript and charge of the anion (-) to help determine the charge of the cation (+) transition metal.

EX: CrP₂ Cr has an unknown charge, P has a -3 charge and there are two of them in the formula so the answer is Chromium (VI) Phosphide

1. CuF _____
2. Cu₂ O _____
3. Cu₃ N _____
4. PbF₂ _____
5. PbS _____
6. Pb₃ N₄ _____
7. FeF₃ _____
8. Fe₂ O₃ _____
9. FeP _____

Part 6 Write the names of the covalent compounds (2 non-metals)

HINT: Two non-metals: use the prefixes (mon, di, tri, tetra, penta, hexa, hepta, octa, nona, deca). Never use "mon" for the first element.

1. P_4S_5 _____

2. O_2 _____

3. SeF_6 _____

4. Si_2Br_6 _____

5. SCl_4 _____

6. CH_4 _____

7. B_2Si _____

8. NF_3 _____

PART 7 Write the formulas for the covalent compounds.

9. Dicarbon tetrachloride _____

10. Carbon tetrachloride _____

11. Phosphorus pentachloride _____

12. Antimony tribromide _____

13. Hexaboron silicide _____

14. Chlorine dioxide _____

15. hydrogen iodide _____

16. Iodine pentafluoride _____

PART 8

Writing binary compounds

1. Write the formula for barium fluoride _____
2. Write the formula for potassium sulfide _____
3. Name this compound LiBr _____

Writing polyatomic and transition metal compounds

4. Write the formula for Beryllium Chlorate _____
5. Write the formula for Iron (III) Chloride _____

Naming binary, ternary, compounds

6. Name this compound LiBr _____
7. Name the compound KSO_3 _____
8. Name the compound KSO_4 _____
9. Name the compound NaOH _____

Writing ternary and polyatomic compounds (use poly sheet)

10. Ammonium Hydroxide _____
11. Ammonium Dichromate _____
12. Strontium Hydroxide _____

Naming two nonmetals

Word bank: mono, di, tri, tetra, penta, hexa, hepta, octa, nona

13. Name the compound H_2O _____
14. Name the compound N_2O_5 _____

15. Name the compound SCl_4 _____

PART 9 Write the Formula equation

HINT: Use the parts below. All compounds must be balanced! Use poly sheet.

(g) = gas

(s) = solid (precipitate)

(l) = liquid

(aq) = soluble, aqueous, dissolved in water

(-->) = reacts with, forms

(+) = reacts, combines, and (product side)

1. An aqueous solution of beryllium chloride reacts with solid silver nitrate to form an aqueous solution of beryllium nitrate and solid silver chloride.

2. Magnesium nitrate reacts in a solution with potassium hydroxide to yield a magnesium hydroxide precipitate and soluble potassium nitrate

3. Aqueous sodium chloride reacts lead (II) nitrate to yield a lead (II) chloride precipitate and aqueous sodium nitrate

4. Aqueous zinc chloride reacts hydrogen sulfide gas to form a zinc sulfide precipitate and hydrochloric acid (HCl).