

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
GRADE 10
CHEMISTRY

WEEK 9

LESSON 1 - WORKSHEET

Ionic and Molecular (Covalent) Compounds. Naming and Formula Writing Review

1. Write the formula for the following binary ionic compounds.

- a. calcium chloride _____
- b. sodium fluoride _____
- c. magnesium oxide _____
- d. aluminum fluoride _____
- e. aluminum sulfide _____
- f. lithium oxide _____
- g. lead(IV) oxide _____
- h. copper(II) fluoride _____
- i. sodium phosphide _____
- j. lithium nitride _____

2. Name the following binary ionic compounds.

- a. SrI_2 _____
- b. Li_2O _____
- c. AgF _____
- d. FeCl_3 _____
- e. CuO _____

3. Write the formula for the following covalent compounds.

- a. carbon tetrachloride _____
- b. carbon trioxide _____
- c. dinitrogen pentoxide _____
- d. sulfur hexafluoride _____
- e. dinitrogen heptoxide _____
- f. phosphorus pentachloride _____

4. Name the following covalent (molecular) binary compounds.

- a. CO _____
- b. N₂O _____
- c. N₂O₃ _____
- d. PCl₅ _____
- e. CS₂ _____

5. Name the following ionic compounds that contain polyatomic ions.

- a. CuSO₄ _____
- b. Mg(OH)₂ _____
- c. NaHCO₃ _____
- d. CaCO₃ _____
- e. NaNO₃ _____
- f. BaSO₄ _____
- g. AlPO₄ _____
- h. KClO₃ _____

6. Write formulas for the following ionic compounds containing polyatomic ions.

- a. barium sulfite _____
- b. ammonium nitrite _____
- c. lithium sulfate _____
- d. sodium acetate _____
- e. calcium carbonate _____
- f. barium hydroxide _____
- g. calcium chlorate _____
- h. magnesium chlorite _____

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Worksheet – Answer

7. Write the formula for the following binary ionic compounds.

- a. calcium chloride CaCl₂
- b. sodium fluoride NaF
- c. magnesium oxide MgO
- d. aluminum fluoride AlF₃
- e. aluminum sulfide Al₂S₃
- f. lithium oxide Li₂O
- g. lead(IV) oxide PbO₂
- h. copper(II) fluoride CuF₂
- i. sodium phosphide Na₃P
- j. lithium nitride Li₃N

8. Name the following binary ionic compounds.

- a. SrI₂ strontium iodide
- b. Li₂O lithium oxide
- c. AgF silver fluoride
- d. FeCl₃ iron(III) chloride
- e. CuO copper(II) oxide

9. Write the formula for the following covalent compounds.

- a. carbon tetrachloride CCl₄
- b. carbon trioxide CO₃
- c. dinitrogen pentoxide N₂O₅
- d. sulfur hexafluoride SF₆
- e. dinitrogen heptoxide N₂O₇
- f. phosphorus pentachloride PCl₅

10. Name the following covalent (molecular) binary compounds.

- a. CO _____ carbon monoxide _____
b. N₂O _____ dinitrogen monoxide _____
c. N₂O₃ _____ dinitrogen trioxide _____
d. PCl₅ _____ phosphorus pentachloride _____
e. CS₂ _____ carbon disulfide _____

11. Name the following ionic compounds that contain polyatomic ions.

- a. CuSO₄ _____ copper (II) sulfate _____
b. Mg(OH)₂ _____ magnesium hydroxide _____
c. NaHCO₃ _____ sodium hydrogen carbonate _____
d. CaCO₃ _____ calcium carbonate _____
e. NaNO₃ _____ sodium nitrate _____
f. BaSO₄ _____ barium sulfate _____
g. AlPO₄ _____ aluminum phosphate _____
h. KClO₃ _____ potassium chlorate _____

12. Write formulas for the following ionic compounds containing polyatomic ions.

- a. barium sulfite _____ BaSO₃ _____
b. ammonium nitrite _____ NH₄NO₂ _____
c. lithium sulfate _____ Li₂SO₄ _____
d. sodium acetate _____ NaC₂H₃O₂ _____
e. calcium carbonate _____ CaCO₃ _____
f. barium hydroxide _____ Ba(OH)₂ _____
g. calcium chlorate _____ Ca(ClO₃)₂ _____
h. magnesium chlorite _____ Mg(ClO₂)₂ _____