Roatan Bilingual School
10th Grade Chemistry Evaluation
SEMESTER RECUPERATION

Name: _____   Date: _____

Ms. April Brown   100%

Read each question or exercise carefully. RESPOND IN YOUR OWN WORDS. to show your work and leave all evidence possible.

TRUE OR FALSE

Read each statement carefully. Write a T on the line next to it if it is true. Write an F if it is false and EXPLAIN WHY.

1. _____ The formula for Carbon Monoxide is CO_2.

2. _____ KBr is Potassium Baromdiide.

3. _____ NaF is a covalent compound.

4. _____ ZnI is an ionic compound.

5. _____ Pressure is a force or characteristic that can be measured in gasses.

   The unit used to measure pressure is calories.

6. _____ H_2O is a molecule.

7. _____ Ne is a noble gas.

8. _____ H_2O and N_2 are examples of matter that are in plasma state.

9. _____ Temperature is measured ONLY in Celsius.

10. _____ Mass is usually measured in L.

11. _____ CaCO represents Calcium Nitrate

12. _____ Calories are used to measure temperature.

MULTIPLE CHOICE
Circle the best answer. If your choice is ¨none of the above¨ explain why.
1. **This is a polyatomic compound**
    a. Acetate
    b. $NaNO_3$
    c. K_3PO_4
    d. All of the above

2. **Name KOH**
    a. Cerium Oxide
    b. Kallium Oxihydride
    c. Potassium Hydroxide
    d. None of the above _____

3. **What does the subscript in $Al_2(SO_4)_3$ represent?**
    a. There is no subscript
    b. This is a formula for a different compound
    c. This is a covalent compound
    d. None of the above _____

4. **Equation for a chemical reaction in which the number of atoms for each element in the reaction and the total charge is the same for both the reactants and the products**
    a. Potassium, Copper, Carbon
    b. Calcium, Magnesium, Silver
    c. synthesis reaction
    d. None of the above _____

5. **Avogadro´s number**
    a. 1 x 10 E23
    b. 6.02 x 10 E23
    c. 62.0 x 10 E23
    d. None of the above _____

6. **Unit used to measure the amount or quantity of substances in a chemical reaction.**
    a. Liters
    b. Moles
    c. Atoms
    d. None of the above _____

7. **(2.016 g/mol) is the molar mass of:**
    a. N2
   b. H2

c. Cl2

d. None of the above _____

8. **A state of matter in which particles are NOT tightly packed together.**

a. liquid

b. plasma

c. solid

D. None of the above _____

9. **In the equation CO2 + H2O + ATP —> O2 + C6H12O2, which compound is part of the product?**
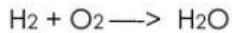
a. H2O

b. CO2

c. ATP

D. None of the above _____

9. **In the equation CO2 + H2O + ATP —> O2 + C6H12O6, which compound is part of the reactants?**

a. H2O

b. C6H12O6

c. O2

D. None of the above _____

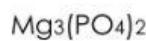**PRACTICAL EXERCISES**

1. Name the parts of an equation

$$C + O_2 \longrightarrow CO_2$$
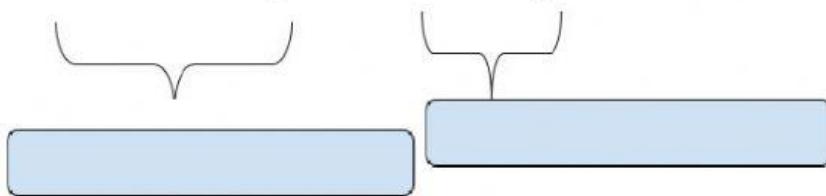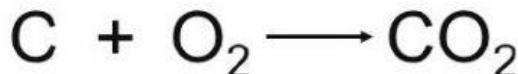
2. Balance the equations

$H_2 + O_2 \longrightarrow H_2O$

$HCL + 2Na \longrightarrow NaCl + H_2$

3. Write a synthesis reaction: N, H, 2NH₃ (balance the equation)

4. Write a decomposition reaction: Zn, S, ZnS

5. Name the compounds

   $Mg_3(PO_4)_2$

   $NH3$

   $C_6H_{12}O_6$

   $Al_2(SO_4)_3$

6. Write the formula

   Glucose=

   Lead Nitrate

   Calcium Hydroxide

7. Tell whether single displacement or double displacement

   $H_2SO_4 + 2NaOH \rightarrow Na_2SO_4 + 2H_2O$

   $Zn + 2HCl \rightarrow H_2 + ZnCl_2$

8. Point out the subscripts.

   $$3Fe_{(s)} + 4H_2O_{(g)} \longrightarrow Fe_3O_{4(s)} + 4H_{2(g)}$$

Reactants

Iron

Hydrogen

Oxygen

Products

Iron

Oxygen

Hydrogen

9. Point out the coefficients

$$3Fe_{(s)} + 4H_2O_{(g)} \longrightarrow Fe_3O_{4(s)} + 4H_{2(g)}$$

Reactants

Iron

Hydrogen

Oxygen

Products

Iron

Oxygen

Hydrogen

1. Describe the 4 states of matter discussed in class. 1pt

2. Name the following compounds. 4pts

Ca(OH)

HCL

NaCl

3. Convert the temperatures. Use the conversion factors. 2pts

110F to C

50C to F

4. Convert the amounts. Use the conversion factors. 3pts

1 L = 1000mL 1 kg = 1000g 1hr = 60min

360min to hr

600 mL to L

8900g to Kg

5. Balance the equations. 2pts

_____ CH2O + _____ H2 → _____ CH3OH

_____ P4 + _____ H2 → _____ PH3

6. Find the molar mass. 4pts

Ethane C2H6

KCl

7. Covert from moles to grams. 2pts

7.5 moles of CO2

10 moles of H2

8. Convert from grams to moles. 2pts

454 g of NH3

70g of NO2

9. Identify the formula units. 2pts

0.533 mol NH4

1. 65 g of H2

CELSIUS TO FAHRENHEIT

$$T_F = \left(\frac{9}{5} T_C\right) + 32$$

FAHRENHEIT TO CELSIUS

$$T_C = \frac{5}{9}\left(T_F - 32\right)$$