

Name: _____

SCH11U
Teacher: C.Halupka

Unit Test-2 V.5: **“Chemical Reactions”**

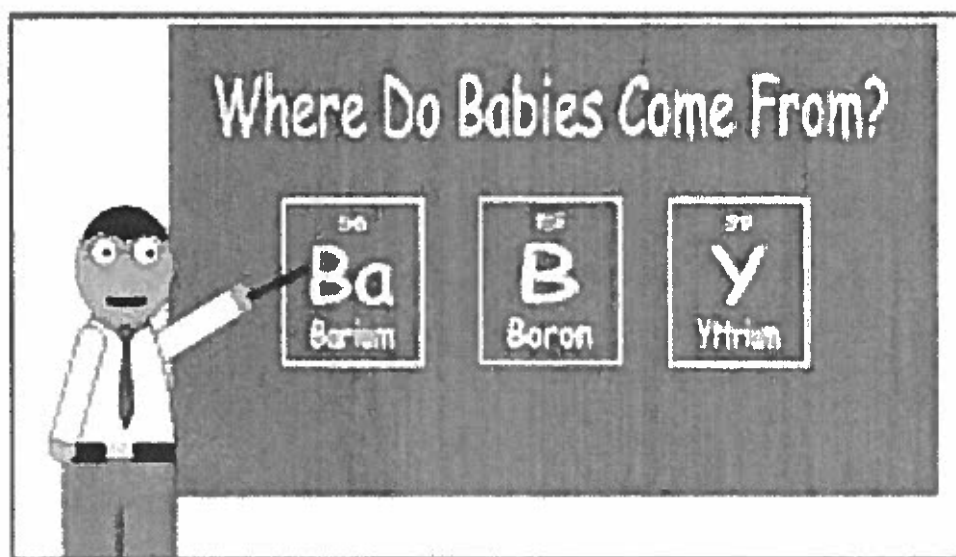
K/U: /46

T/I: /10

Com: /12

M/C: /12

Total: /80

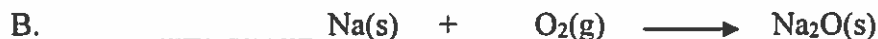


**Due to budget cuts, science and health were both taught
by the chemistry teacher!**

A: Knowledge & Understanding (K/U)----Total (52):

/5

1. Determine if the following reactions are single displacement, double displacement, synthesis, decomposition or combustion.



/3

2. Balance the following equations:



/10

3. Fill in the blanks

A. _____ A pH of 7.5 is considered this.

B. _____ & _____ An acid mixed with a base make these substances

C. _____ When there is not enough Oxygen and heat this gas will be made.

D. _____ True or False....a H^+ ion and a Proton are the same?

E. _____ True or False....Gold is less reactive than Lithium

F. _____ Bases produce this type of ion.

G. _____ A pH of 4 is considered (Acidic, Basic, Neutral).

H. _____ This gas is odourless and colourless and can kill you.

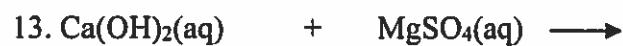
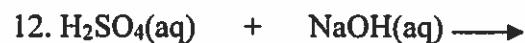
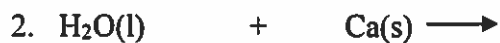
I. _____ Used to spin solutions to get solids to the bottom of test tube.

/28

4. Complete the following reactions below, include the following:

A. Determine products

B. Determine the states (s, l, g, aq)



B: Thinking & Inquiry (T/I)----Total (10):

/4

5. Determine what chemicals will be made along with their states (Solid (s) or Aqueous Solution (aq)) when the following chemicals are mixed together.

- A. $\text{AgNO}_3(\text{aq}) + \text{KI}(\text{aq}) \text{ ----->}$
- B. $\text{Ba}(\text{OH})_2(\text{aq}) + \text{K}_2\text{SO}_4(\text{aq}) \text{ ----->}$
- C. $\text{NH}_4\text{Cl}(\text{aq}) + \text{Na}_2\text{S}(\text{aq}) \text{ ----->}$
- D. $\text{H}_2\text{SO}_4(\text{aq}) + \text{Ca}(\text{s}) \text{ ----->}$

/6

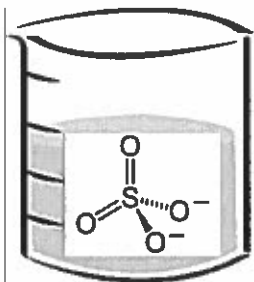
6. Chemists often want to test for various ions in water. They do this by adding a selected aqueous solution to the water sample to see how cloudy it gets. The more cloudy (precipitate) a water sample is means that there are more of the selected ion present.

Determine an aqueous solution that you could add to a glass of water (sample) to determine the presence of the following ions below. Include the full chemical formulae (not just the required ion). Eg. Sodium chloride....not just Cl^{-1})



A) Name of Aqueous solution used to Testing for Pb^{+2} ions...

Full chemical name:= _____?



B) Name of Aqueous solution used to Testing for SO_4^{-2} ions

Full chemical name:= _____?

C: Communication (Com)----Total (12):

Use proper sentences to explain the following. Marks are given for content and proper sentences.

/2

7. If a solution is **neutralized** than what does this mean? Explain all chemicals made.

/4

8. What is the difference between an **aqueous solution** and a **liquid**? Draw a picture to demonstrate your understanding of aqueous and liquid by showing two glasses containing NaCl(aq) vs. NaCl(l)

/3

9. Explain what a **precipitate** is.

/3

10. Explain the difference between **incomplete combustion** and **complete combustion**. Include conditions needed for each and their products made.

D: Making Connections (M/C)-----Total (12):

/3

11. Explain why many experiments prefer distilled water instead of tap water?

/9

12. **Complete and Convert** the following word equations into a **balanced chemical** reactions along with **states**.

A. Nitrogen monoxide gas + Oxygen gas produces Nitrogen dioxide gas.

B. Aqueous Hydrogen Flouride + aqueous Barium Hydroxide produces?

C. A piece of Lithium metal mixed with Aluminum hydroxide solution produces?