

Unit 2: Chemical Reactions Station Review

Station #1

Name the Following:

- a) NH_3
- b) P_4S_{10}
- c) S_2O_7
- d) AlBr_3
- e) K_2S

Write the formula:

f) cupric oxide

Station #2

Complete the following name/formula

- a) potassium chlorate
- b) tin (IV) hypochlorite
- c) sodium phosphite
- d) $\text{Fe}(\text{BrO}_3)_2$
- e) NaHCO_3
- f) aluminum hydrogen phosphate

Station #3

Write names/formulas

- a) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
- b) $\text{HF}_{(\text{aq})}$
- c) hydrosulfuric acid
- d) $\text{HNO}_{4(\text{aq})}$
- e) $\text{H}_2\text{CO}_{3(\text{aq})}$
- f) sulfuric acid

Station #4

Complete the following chart:

Oxy Anion Name	Oxygen Content	Acid Name
	one more	
	normal	
	one less	
	two less	

How do you name binary acids?

Station #5

Balance the following equations:

- a) $\text{CaO} + \text{C} \rightarrow \text{CaC}_2 + \text{CO}$
- b) $\text{Na}_2\text{CO}_3 + \text{H}_3\text{PO}_4 \rightarrow \text{Na}_3\text{PO}_4 + \text{H}_2\text{O} + \text{CO}_2$
- c) Name the 5 types of reactions and give general equations

Station #6

Complete the following reactions

With excess oxygen



With insufficient oxygen



- c) If you were to look at a flame, how could you tell if it is complete combustion?
d) What evidence would lead you to believe you have incomplete combustion?

Station #7

Complete the following table/reactions

- a) Metal carbonates \rightarrow
b) Carbonic acid \rightarrow
c) Metal nitrate \rightarrow
d) Metal hydroxide \rightarrow
e) What type of reactions are these?

Station #8

Magnesium is burnt in oxygen to produce X. X is then reacted with water.

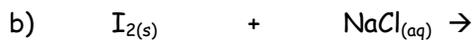
- a) Write out both balanced chemical reactions
b) Repeat the same for the element carbon.
c) Describe the difference between the reaction of non-metal oxides + water and metal oxides + water

Station #9

What is the activity series? How does it work?

What is the halogen series? How does it work?

Complete



Station #10

Are the following aq or s in water?

- | | |
|-----------------------------|--------------------|
| a) NaCl | e) NaNO_3 |
| b) Na_2SO_4 | f) AgCl |
| c) Ag_2SO_4 | g) BaSO_4 |
| d) CaCO_3 | |

Station #11

Complete the following:

- a) $\text{Cu}(\text{NO}_3)_2(\text{aq})$ + $\text{MgCl}(\text{aq}) \rightarrow$
- b) $\text{Ba}(\text{OH})_2(\text{aq})$ + $\text{Fe}_2(\text{SO}_4)_3(\text{aq}) \rightarrow$
- c) $\text{Mg}(\text{OH})_2(\text{s})$ + $\text{H}_2\text{SO}_4(\text{aq}) \rightarrow$