

## Chemical Equations I Term Sheet

**Directions:** Use your textbook to define the following terms and symbols.

1. Element -
2. Compound -
3. Atom -
4. Molecule -
5. Chemical formula -
6. Valence -
7. Chemical reaction -
8. Law of Conservation of Mass -
9. Chemical equation -
10. Subscript -
11. Coefficient number -
12. Precipitate -
13. Reactants -
14. Products -
15. Balanced equation -

16. Single replacement reaction -

17. Double replacement reaction -

18. Decomposition reaction -

19. Synthesis reaction -

20. Catalyst -

21. Identify the following letters and symbols used in chemical equations:

A. Aq -

B. s -

C. l -

D. g -

E. ↑ -

F.  $\Delta$   
→ -

G. ↓ -

H. ----->

**Chemical Equations I  
Activity Sheet**

**Part I: Directions - Using your textbook or a reference text, look up the symbols and valences for the following elements. Include valence number and sign (positive or negative)**

<b>Element</b>	<b>Symbol</b>	<b>Valence Number And Sign</b>
1. Hydrogen	_____	_____
2. Chlorine	_____	_____
3. Zinc	_____	_____
4. Copper I	_____	_____
5. Copper II	_____	_____
6. Iron II	_____	_____
7. Iron III	_____	_____
8. Silver	_____	_____
9. Mercury I	_____	_____
10. Mercury II	_____	_____
11. Potassium	_____	_____
12. Sodium	_____	_____
13. Calcium	_____	_____
14. Magnesium	_____	_____
15. Bromine	_____	_____
16. Oxygen	_____	_____
17. Aluminum	_____	_____
18. Iodine	_____	_____
19. Lead	_____	_____
20. Barium	_____	_____
21. Gold	_____	_____
22. Nitrogen	_____	_____

**Part II: Directions - Use your textbook or a reference text to look up the chemical formulas and valence numbers for the following radicals or polyatomic ions. Include valence number and sign.**

<b>Radical</b>	<b>Formula</b>	<b>Valence Number And Sign</b>
1. Sulfate	_____	_____
2. Nitrate	_____	_____
3. Hydroxide	_____	_____
4. Ammonium	_____	_____
5. Chromate	_____	_____
6. Carbonate	_____	_____
7. Acetate	_____	_____
8. Chlorate	_____	_____

**Part III: Directions - Using the correct valence numbers and signs from the above list, combine the following elements and radicals. Write the chemical formula using the correct subscript numbers and the correct chemical name.**

	<b>Chemical Formula</b>	<b>Chemical Name</b>
1. Zinc and chlorine	_____	_____
2. Copper II and hydroxide	_____	_____
3. Silver and bromine	_____	_____
4. Lead II and nitrate	_____	_____
5. Hydrogen and chlorine	_____	_____
6. Sodium and hydroxide	_____	_____
7. Potassium and chromate	_____	_____
8. Calcium and carbonate	_____	_____
9. Aluminum and oxygen	_____	_____

10. Ammonium and hydroxide

\_\_\_\_\_

\_\_\_\_\_

11. Barium and chlorine

\_\_\_\_\_

\_\_\_\_\_

12. Zinc and sulfate

\_\_\_\_\_

\_\_\_\_\_

13. Calcium and hydroxide

\_\_\_\_\_

\_\_\_\_\_

14. Potassium and chlorate

\_\_\_\_\_

\_\_\_\_\_

15. Iron III and hydroxide

\_\_\_\_\_

\_\_\_\_\_

16. Silver and acetate

\_\_\_\_\_

\_\_\_\_\_

17. Iron III and oxygen

\_\_\_\_\_

\_\_\_\_\_

18. Aluminum and chlorine

\_\_\_\_\_

\_\_\_\_\_

19. Copper II and sulfate

\_\_\_\_\_

\_\_\_\_\_

20. Magnesium and oxygen

\_\_\_\_\_

\_\_\_\_\_