Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_

**WEEK 27 AGENDA: Unit 6 (H) website: kachemistry.weebly.com**

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| --- | --- | --- |
| **Date** | **Topic** | **Homework** |
| **Honors** |
| M – Mar 16 | Net Ionic Equations | Finish WS from Class, #1 |
| T – Mar 17 | Predicting Products Review | 8-16 |
| W – Mar 18 | QUIZ, PLAN Review | 17-21 |
| Th – Mar 19 | Redox Reactions | 22-25 |
| F – Mar 20 | Redox Reactions Cont. | 26-27 |

**\*Complete the following problems on a separate sheet of paper in your chemistry notebook.**

1. For each reaction below, determine the states of matter of the products (use the table below), **then** write the total ionic and net ionic forms of the equation:
	1. 2NaCl (*aq*) + Pb(NO3)2(*aq*) 🡪 PbCl2 (\_\_\_) + 2NaNO3 (\_\_\_\_)
	2. 2(NH4)3PO4(*aq*) + 3Zn(NO3)2 🡪 Zn3(PO4)2(\_\_\_\_\_\_) + 6NH4NO3(\_\_\_\_\_)
	3. BaBr2(*aq*) + Na2SO4(*aq*) 🡪 2NaBr(\_\_\_\_\_) + BaSO4(\_\_\_\_\_\_\_)
	4. Na2CO3(*aq*) + FeCl2(*aq*) 🡪 FeCO3 (\_\_\_\_\_\_\_) + 2NaCl(\_\_\_\_\_\_\_)



For questions 8-15, determine the type of reaction and complete and balance the equation. Be sure to include the states of matter for all products!! (Watch out for diatomics and check your charges in compounds!)

1. C3H8 *(g)*+ O2 *(g)* 🡪
2. LiClO*(aq)* + KOH*(aq)* 🡪
3. Ca*(s)* + O2*(g)* 🡪
4. BaCl2(aq) + Na2SO4(aq) 🡪
5. Cu*(s)* + FeSO4*(aq)* 🡪
6. MgSO4(aq) + Na2CO3(aq) 🡪
7. Ba(OH)2 🡪
8. AgNO3(aq) + KCl(aq) 🡪
9. For the double replacement reactions in #8-15, write the total ionic and net ionic forms of the equations.
10. Name three things that always stay the same in a chemical reaction.
11. What changes in a chemical reaction?
12. Define “reactant” and “product” in your own words.
13. How many atoms of each type of element are present in the following compounds:
	1. BeSO4 e. Al(ClO2)3
	2. 3BeSO4 f. 5Ba3(PO4)2
	3. KClO4 g. Li2MnO4
	4. 7KClO4 h. 6Li2MnO4
14. Balancing Practice
	1. \_\_\_NaClO3 🡪 \_\_\_NaCl + \_\_\_O2
	2. \_\_\_(NH4)3PO4 + \_\_\_Pb(NO3)4 🡪 \_\_\_Pb(PO4)4 + \_\_\_NH4NO3
	3. \_\_\_C5H11 + \_\_\_O2 🡪 \_\_\_CO2 + \_\_\_H2O
15. What does it mean if a substance is oxidized in a reaction?
16. What does it mean if a substance is reduced?
17. Define oxidizing agent. Define reducing agent.
18. Determine the oxidation number of each atom in the following substances:
	1. NF3 N F
	2. K2CO3 K C O

 c. NO3- N\_\_\_\_\_\_\_\_\_ O\_\_\_\_\_\_\_\_\_\_

1. HIO4 H I O
2. Determine the oxidation number of each atom on the reactants and products side of the reactions below. Which element is being oxidized? Which is being reduced?

 a. Mg + HCl 🡪 MgCl2 + H2

b. Fe + V2O3 🡪 Fe2O3 + VO

1. Use the following reaction:

Cu + HNO3 🡪 CuNO3 + H2

* 1. Use your rules to assign oxidation numbers to each atom
	2. Which substance is oxidized?
	3. Which substance is reduced?
	4. What is the oxidizing agent?
	5. What is the reducing agent?
	6. Write the oxidation half reaction.
	7. Write the reduction half reaction.
	8. Write the balanced redox reaction.
1. Use the following reaction:

2H2 + O2 🡪 2H2O

* 1. Use your rules to assign oxidation numbers to each atom
	2. Which substance is oxidized?
	3. Which substance is reduced?
	4. What is the oxidizing agent?
	5. What is the reducing agent?
	6. Write the oxidation half reaction.
	7. Write the reduction half reaction.
	8. Write the balanced redox reaction.