|  |  |  |
| --- | --- | --- |
| *Five Reaction Types*  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues &Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_\_\_\_\_\_ |

To be completed with the help of the blue Addison – Wesley textbook *Chemistry*, by Wilbraham, et al

|  |  |
| --- | --- |
| 1a. There are three reactions on page 212. copy the first one into the box below ⮷ | 1b.  What does the book call this type of reaction?  □ single replacement reaction  □ double replacement reaction  □ combination reaction  □ decomposition reaction |
| *(It’s the one with potassium in it…)* |

|  |  |
| --- | --- |
| 2a. From p. 214 , copy the last reaction on the entire page into the box below ⮷ | 2b. What does the book call this type of reaction?  □ single replacement reaction  □ double replacement reaction  □ combination reaction  □ decomposition reaction |
| *(It’s the only one with carbonate anion in it…)* |

1. Based on what you wrote in 1 and 2 above, classify each of these as either a combination or a decomposition reaction
   1. **\_\_\_\_\_\_\_\_\_\_\_ Al(ClO3)3 🡪 O2 +AlCl3**
   2. **\_\_\_\_\_\_\_\_\_\_\_ MgCO3 🡪 MgO + CO2**
   3. **\_\_\_\_\_\_\_\_\_\_\_ Sn + N2 🡪 Sn3N4**

|  |  |
| --- | --- |
| 4a. From p. 217 , copy the second reaction on the page into the box below ⮷ | 4b. What does the book call this type of reaction?  □ single replacement reaction  □ double replacement reaction  □ combination reaction  □ decomposition reaction contain a metal? \_\_\_\_\_  4c. Now, in Box 4A draw a circle around any element that is a metal. |
| *(It’s the only one with silver anion in it…)* |

|  |  |
| --- | --- |
| 5a. From p. 219 , copy the only reaction on the page that contains the element sulfur into the box below ⮷ | 5b. What does the book call this type of reaction?  □ single replacement reaction  □ double replacement reaction  □ combination reaction  □ decomposition reaction  5c. Now, in Box 5A draw a circle around any element that is a metal. |
| *(It’s the only one with silver anion in it…)* |

1. Based on the patterns you saw in #4 and #5, decide whether each of the following is Single Replacement or Double Replacement.
   1. \_\_\_\_\_\_\_\_\_\_\_ **Li + Fe(NO3)3 🡪LiNO3 + Fe**
   2. \_\_\_\_\_\_\_\_\_\_\_ **KCl + Ba(OH)2 🡪 KOH + BaCl2**
   3. \_\_\_\_\_\_\_\_\_\_\_ **Cl2 + LiI** 🡪 **LiCl + I2**
2. Look carefully at the first picture in Figure 8.9 on page 217. Based on our recent lectures and especially the lab (you may need to look at your notes or your lab report), write a reaction for what is occurring

\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. According to pp. 222-223, which type of reaction always has two reactants and one product?

□ single replacement reaction

□ double replacement reaction

□ combination reaction

□ decomposition reaction

1. According to pp. 222-223, which type of reaction always has one reactant and two products?

□ single replacement reaction

□ double replacement reaction

□ combination reaction

□ decomposition reaction

1. classify each of the reactions below as one of the following reaction types

COMBUSTION,

DECOMPOSITION,

COMBINATION,

SINGLE REPLACEMENT,

DOUBLE REPLACEMENT

* 1. \_\_\_\_\_\_\_\_\_\_\_ any reaction that has oxygen as a reactant and water and carbon dioxide as products
  2. \_\_\_\_\_\_\_\_\_\_\_ CH4 + O2 🡪 CO2 + H2O
  3. \_\_\_\_\_\_\_\_\_\_\_ Zn + Pb(NO3)2 🡪 Zn(NO3)2 + Pb
  4. \_\_\_\_\_\_\_\_\_\_\_ Mg + N2 🡪 Mg3N2
  5. \_\_\_\_\_\_\_\_\_\_\_ H2O2 🡪 H2O + O2
  6. \_\_\_\_\_\_\_\_\_\_\_ Cd + HCl 🡪 CdCl2 + H2
  7. \_\_\_\_\_\_\_\_\_\_\_ NiSO4 + Li3PO4 🡪 Ni3(PO4)2 + Li2SO4
  8. \_\_\_\_\_\_\_\_\_\_\_ C8H18 + O2 🡪 CO2 + H2O
  9. \_\_\_\_\_\_\_\_\_\_\_ SO2 + O2 🡪 SO3
  10. \_\_\_\_\_\_\_\_\_\_\_ Fe + O2 🡪 Fe2O3
  11. \_\_\_\_\_\_\_\_\_\_\_ Fe + CuSO4 🡪 Fe2(SO4)3 + Cu
  12. \_\_\_\_\_\_\_\_\_\_\_ Li + N2 🡪 Li3N
  13. \_\_\_\_\_\_\_\_\_\_\_ Al + O2 🡪 Al2O3
  14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ The reaction we did in lab last week with the nail (see your notes )
  15. \_\_\_\_\_\_\_\_\_\_\_ Na2CO3 🡪 Na2O + CO2
  16. \_\_\_\_\_\_\_\_\_\_\_ Zn + H3PO4 🡪 Zn3(PO4)2 + H2
  17. \_\_\_\_\_\_\_\_\_\_\_ Cl2 + LiI 🡪 LiCl + I2
  18. \_\_\_\_\_\_\_\_\_\_\_ NaOH 🡪 Na2O + H2O
  19. \_\_\_\_\_\_\_\_\_\_\_ Mg + 2 HCl 🡪 MgCl2 + H2
  20. \_\_\_\_\_\_\_\_\_\_\_ FeCl3 + NaOH 🡪 Fe(OH)3 + NaCl
  21. \_\_\_\_\_\_\_\_\_\_\_ Na + H2O 🡪 NaOH + H2

*This material will be about a third of Friday’s quiz.*

*Friday’s quiz will be 1/3 each from Monday, Tuesday, and Today.*