



### Reaction #3

**Materials**

- $\text{CuSO}_4$
- Paperclip
- 50mL beaker
- Pipette
- Waste container and distilled  $\text{H}_2\text{O}$  bottle up front.

**Procedure**

- 1) Add 5 – 10mL of  $\text{CuSO}_4$  to a small beaker.  $\text{CuSO}_4$  is toxic. Handle it with care!
- 2) Put the paper clip in the beaker containing  $\text{CuSO}_4$ .
- 3) Observe the paper clip for 5 to 8 minutes.
- 4) When finished, throw out the paper clip and recycle the copper sulfate in the waste container at the front desk. Rinse the beaker with the distilled water bottle that is up front by the waste container, so that it is clean and ready for the next class period.

\* Assume  $\text{Fe}^{2+}$  is formed in the product compound

**Observations****Type of Reaction****Word Equation****Balanced Eq. with phases****Net Ionic Equation**

### Reaction #4

**Materials**

- 0.15M  $\text{CaCl}_2$
- 0.25M  $\text{Na}_2\text{CO}_3$
- 50mL beaker
- Two pipettes
- Wash bottle with distilled  $\text{H}_2\text{O}$

**Procedure**

- 1) Pipette ~2 mL (1 pipette full) of  $\text{CaCl}_2$ , and put it in the empty small beaker.
- 2) Pipette out approximately 2mL (1 pipette full) of  $\text{Na}_2\text{CO}_3$ , and add it to the small beaker that has the 2mL of  $\text{CaCl}_2$  already in it.
- 3) Record your observations in the chart below.
- 4) Dispose of reaction mixture down the drain with plenty of water, rinse the beaker with distilled water so it is clean and ready for the next class period.

**Observations****Type of Reaction****Word Equation****Balanced Eq. with phases****Net Ionic Equation**

**Absent?** Use this link to access videos of the reactions so you can finish this worksheet.

<https://tinyurl.com/53wr4cww>

