

### Copper Cycle Extension

You will now begin the process of getting the copper back into solution. In your first step you will begin with YOUR MASS of copper. \_\_\_\_\_grams Cu

In order for copper to become soluble, it must be able to undergo a double replacement reaction to make water.

Which ionic compound can you easily make with copper metal? \_\_\_\_\_  
(you would do this in a crucible over a Bunsen burner)

What type of reaction is this? \_\_\_\_\_

Write the chemical equation \_\_\_\_\_

What is the mass of your product(s)? \_\_\_\_\_

Record ALL of your steps, and ALL of your observations.

For the double replacement reaction, choose the appropriate solution, write and balance your chemical equation and calculate the amount of the solution necessary to completely react with your solid. You will do this in the ice bath!

Record ALL of your steps, and ALL of your observations.

Available Solutions:

**sulfuric acid**  $\frac{2.00 \text{ moles}}{1L}$

**Sodium chloride**  $\frac{1.75 \text{ moles}}{1L}$

**Sodium carbonate**  $\frac{1.00 \text{ moles}}{1L}$

**Calcium nitrate**  $\frac{2.50 \text{ moles}}{1L}$

Find the final volume of your solution, and give a concentration of your solution in moles per liter  $\frac{\text{moles}}{1L}$