

# TYPES OF REACTIONS

OBTAIN YOUR TEACHERS PERMISSION BEFORE PERFORMING THIS EXPERIMENT

In this experiment you will be examining TYPES OF REACTIONS (RXNs) It is very important that you MEASURE EXACT AMOUNTS OF SUBSTANCES and FOLLOW ALL DIRECTIONS EXACTLY!!!!!!

## Factors

SYNTHESIS

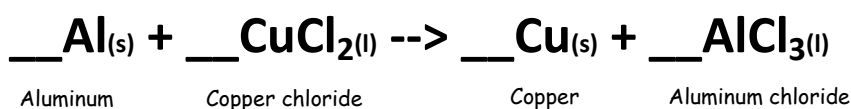
DECOMPOSITION

SINGLE REPLACEMENT

DOUBLE REPLACEMENT

## SINGLE REPLACEMENT REACTION: Aluminum (Al) and Copper (Cu)

### BALANCE THE EQUATION



#### MATERIALS:

- GOGGLE (over eyes)
- Large Test Tube
- Aluminum Foil (crumpled)
- Copper Chloride (CuCl<sub>2</sub>) .5 M
- Test tube rack

1. Make sure you understand the set-up of this lab before beginning.
2. Put 5 ml OF COPPER CHLORIDE IN A LARGE CLEAN TEST TUBE
3. DROP in the ALUMINUM FOIL, Place in test tube rack... OBSERVE
4. After a couple of minutes gently shake the test tube.

Place an "X" next to the items that indicate a chemical change is/has taken place.

- gas produced
- color change
- solid formed
- heat released

Describe the following:

	Phase	Color
Al		
CuCl <sub>2</sub>		
Cu		
AlCl <sub>3</sub>		

WHY DOES IT TAKE 3 CHLORINE ATOMS TO MAKE ALUMINUM CHLORIDE WHILE IT TAKES ONLY 2 TO MAKE COPPER CHLORIDE? \_\_\_\_\_

**CLEAN UP! ...put SOLIDS in the WASTE Container. Rinse everything else. RETURN ALL ITEMS TO THEIR PLACE**