

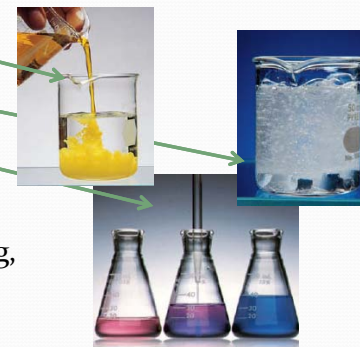
# Chemistry 101L

Experiment #4

Observing the Reactions of Household Chemicals

## Evidence of a Reaction

- Solid being formed
- Gas being formed
- Color change
- Heat released
- Heat absorbed
- Some times you see nothing, but a reaction does occur



## Household Chemicals

- **Household Chemicals:**
  - Clorox or other brand of liquid bleach (5% sodium hypochlorite)
  - Lysol Toilet Bowl Cleaner (9.5% hydrochloric acid)
  - Arm & Hammer Baking Soda (100% sodium bicarbonate)
  - Vanish Crystal Bowl Cleaner (62%  $\text{NaHSO}_4$ )
  - S & F Iris or other brand of blue food color
    - (FD & C Blue #1, listed in the Merck Index as Brilliant Blue FCF)
- **Chemicals:**
  - 0.1 M  $\text{AgNO}_3$
  - 1.0 M  $\text{CaCl}_2$
  - 6 M HCl
  - 0.1% thymol blue indicator (1.0 g/L thymol blue, sodium salt).



## Spot Plate (Known)

Do not cross contaminate!

	Blue Food Color	0.1M $\text{AgNO}_3$	0.1% Thymol Blue	1.0M $\text{CaCl}_2$	6M HCl	
Lysol toilet bowl cleaner						
Baking Soda						
Vanish crystal bowl cleaner						
Clorox liquid bleach						

## Spot Plate (Unknown)

Do not cross contaminate!

	Blue Food Color	0.1M AgNO <sub>3</sub>	0.1% Thymol Blue	1.0M CaCl <sub>2</sub>	6M HCl
Unknown #1					
Unknown #2					

You may also want to do your known next to your unknown

## Notes!!!

- Yes, I have not yet returned any labs. (This is what I will be doing this weekend.)
- Yes, you should be recording everything FIRST in your lab notebook and then on the report form.
- Yes, goggles are needed tonight as we are working with hazardous chemicals.
- Yes, experiment #2 is due tonight.
- Yes, AgNO<sub>3</sub> stains!!