**Name/s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Chemical Reaction Lab**

**Biology**

**Materials:**

Goggles (the chemicals used in this lab are irritants)

Test tube rack w/test tubes (you will probably not use all of them)

Graduated cylinder

Bromothymol blue (this will stain your skin and/or clothes)

Calcium chloride (road salt)

Sodium bicarbonate (baking soda)

Stir rod/stick (rinse between uses)

**Obtain the following in separate test tubes, and use your senses to explore them:**

Bromothymol blue (pH indicator) – you will need two test tubes of this…10 ml each

What does it look like?

What does it smell like?

Calcium chloride (road salt) – 1 small scoop

What does it look like?

What does it smell like?

Sodium bicarbonate (baking soda) – 1 small scoop

What does it look like?

What does it smell like?

**Mix the following and record your observations:**

1 scoop calcium chloride + 10 ml bromothymol blue

What happens?

1 scoop sodium bicarbonate + 10 ml bromothymol blue

What happens?

1 scoop calcium chloride + 1 scoop sodium bicarbonate + 10 ml bromothymol blue (you can just pour the first reaction into the second or vice versa…OVER THE SINK)

What happens?

**The following are possible observations (multiple things may happen for each reaction):**

- Gets hot

- Gets cold

- Turns yellow

- Turns green

- Turns blue

- Bubbles/foams (produces gas)

**NOTE: Do NOT exchange supplies between lab tables; clean all glassware with brushes in sinks; dry lab station with paper towels; throw away paper towels and stir sticks (in trash can…not recycle bins); put away goggles (these will be counted before anyone leaves); wash hands. Lab equipment/stations, sinks, goggle cabinet, and recycle bins will be checked before anyone leaves. Turn in this lab paper by the end of class.**