

## In Class Activity #1 – Experimental Hypotheses

Name \_\_\_\_\_ Name \_\_\_\_\_

Name \_\_\_\_\_ Name \_\_\_\_\_

**Instructions:** You have a beaker of water containing yellow food coloring on your table. In this experiment you will add four drops of another color of food coloring. Before you do that, you will need to determine both a testing hypothesis ( $H_1$  – what you expect to observe) and a null hypothesis ( $H_0$  – everything you do NOT expect to observe - all observations except  $H_1$ ). Based on the color of food coloring your group receives, fill in the blanks below.

$H_1$  (*testing hypothesis*): After we add four drops of \_\_\_\_\_ food coloring, we expect the liquid to turn \_\_\_\_\_ (color).

$H_0$  (*null hypothesis*): After we add four drops of \_\_\_\_\_ food coloring, we do **NOT** expect the liquid to turn \_\_\_\_\_ (color).

Add four drops of the new food coloring, and gently stir the water in the beaker. What color does the water turn?

**Color:** \_\_\_\_\_

Based on your observation, do you accept or reject your null hypothesis: **accept / reject** (circle one)

Based on your observation, do you accept or reject your testing hypothesis: **accept / reject** (circle one)

(You *must* reject at least one of your hypotheses. You may reject both)