**Disease Transmission Lab**

**Purpose:** To simulate transmission of a disease that requires direct, physical contact.

**Materials:** Cup, unknown fluid, indicator

**Hypothesis:** How many students do you think will be infected? Explain.

**Procedure:**  
 1. Obtain a cup of “bodily fluids” from the front lab table. One of you has “infected   
 fluids” simulated by NaOH.  
 2. You are going to mingle around the classroom and “swap fluids.” ALL TOGETHER:   
 Find one partner to swap with. You will swap by pouring the liquid from one cup into   
 the other, swishing the fluids around, and then pouring half of the fluids back into the   
 original cup.  
 3. DO NOT MOVE TO YOUR NEXT PARTNER UNTIL TOLD TO DO SO.  
 4. Repeat step 2 with 2 additional partners.  
 5. All students are “tested” for the infection using phenolphthalein indicator solution.

**Data:** Create a table to record all students you swapped fluids with in order.

**Conclusions:**   
 1. What happened? Do you think this is an accurate portrayal of disease transmission?   
 Why or why not?  
 2. As a class, do your best to trace the disease back to the original source (patient 0).   
 Explain your reasoning for why you believe it was this person (briefly).  
 3. How can we help prevent the spread of infectious diseases?  
 4. How can understanding disease transmission help prevent the spread of infectious   
 diseases?