STD Transmission Lab

Question: How can we simulate transmission of sexually transmitted diseases (STDs) such as AIDS?

Materials: cups, indicator, acidic solution, water

Procedures:

- 1. When the teacher gives the signal to start Round #1, find a partner and mix the liquid from both of your cups together. BE CAREFUL so as not to spill. Divide the liquid evenly back into each cup. Record your partner's name on the data table.
- 2. Follow the same procedure for Round #2 and #3.
- 3. Go back to your seat.
- 4. Your teacher will now place two drops of the STD indicator into your cup.
- 5. Record the color of the solution in the data section.
- 6. On your data sheet list the names of all the students who are "infected" (who have pink solutions).
- 7. Record the individuals who were their first, second, and third round partners. If one of these partners are NOT infected, the infected person is not the FIRST "infected" student.
- 8. To deduce the identity of the first "infected" students, cross off the names of the uninfected students from the data table. This should allow you to narrow down the infected students from the first round to two students. Those two students should obtain a sample from the stock solution with the same number, and test it with the indicator.
- 9. Use this information to infer who must have transmitted the disease to whom.
- 10. On your data table design a chart with student names and arrows to show the transition route from one round to the next.

Data

Round #	Round 1	Round 2	Round 3
Classmate's Name			

My indicator color

Names of infected persons after trials	Their partner in Round 1	Their partner in Round 2	Their partner in Round 3

Analyses and Conclusion: Answer the following questions in complete sentences.

- 1. Who is the original-infected person?
- 2. What was the total number of people infected from the simulation?
- 3. Describe what would happen if we have one more round of transfers.
- 4. Explain why health officials may ask an infected person for a list of peoples he or she have sexual intercourse with?
- 5. List all the ways that you can prevent acquiring a sexually transmitted disease.
- 6. How did you feel when the indicator was put in your glass? If I turned pink, what was your reaction? If it did not turn pink, how did you feel?
- 7. How did you feel as each of the people in the class were tested for the chemical? Were you anxious? Did you feel bad for them? What are your thoughts?
- 8. How could you be supportive to a friend if they found out they had an STD?