

Name: _____ Period: _____ Lab Team: _____ Date: _____

LAB: Pathology & Disease Transmission

Objective: The purpose of this lab is to learn how bacteria and other disease causing agents spread through a population and what techniques are used to study and prevent them. (Standards: Biology, 1.5, 1.7, 1.8, & 1.17)

Instructions: Follow each step of the procedure for the different activities below and complete the analysis questions.

ACTIVITY 1: Shaking Hands and Kissing Babies

1. 3 People in your class have been unknowingly infected with the dreaded Glo-Germ™. The symptom of the Glo-Germ™ disease is glowing skin under a blacklight.
2. Shake hands with 2 people in the classroom.
3. Using a blacklight, determine which students are now infected with the disease.

ACTIVITY 2: Wishy-Washy

1. Place Glo-Germ™ on your hand and thoroughly rub it in, especially at the fingernails, cuticles, and between your fingers. Use the blacklight to ensure full coverage.
2. Your instructor will assign you to a group and tell you which procedures to use to wash your hands.
3. Use the blacklight to determine how much of the Glo-Germ™ is left on your hands and compare the effectiveness of different washing procedures.

ACTIVITY 3: Typhoid Mary

1. Retrieve a prepared well-plate from your instructor
2. Using a pipette, transfer a small amount of liquid from one well to another, and draw an arrow to show the move on the well-plate diagram.
3. Clean the pipette thoroughly by rinsing it with clean water and repeat step 2 a total of 50 times being sure to use each well at least once (label each move arrow with a number, 1-50.)
4. Add a drop of phenolphthalein to each well. If that well has been exposed, the well will turn a pink-purple color. Mark the infected wells on the diagram. Using the diagram, track the exchanges to determine the source of the infection.

DIAGRAM: Well-Plate # _____



