



## ***My Drinking Water Well Isn't So Well***

Student Name: \_\_\_\_\_

Class: \_\_\_\_\_

*Object:* Determine the impact groundwater contamination will have on a drinking water well.

*Time Needed:* 10 minutes

*Simulator Conditions:* Slide the simulator aquarium pump so that the full amount of flow is being delivered to the recharge area (slide pump to the right). Make sure that the aquifer compartment drain valve at the bottom of the simulator's back water reservoir is closed. Make sure the stream drain valve is open. Make sure the lake drain valve is closed.

*Materials needed:* color dye; pipette; squirting wash bottle; large syringe

*Procedure:*

1. Carefully extract a small amount of red dye using the skinny eyedropper, stick the eyedropper down into Well #2, release the red dye into the well. Take the washing squirt bottle, slowly squirt and force the dye out of the bottom of the well so that a "nickel sized" to "quarter sized" amount of dye is in the sand.
2. In this exercise, the dye represents a harmful contaminant that will travel with the groundwater from the recharge to the discharge area.
3. When the dye is 5 cm from Well #5 begin drawing water up using either the large syringe, representing a homeowner or community actively pumping groundwater up through the well for drinking water.
4. Observe what happens to the contaminant and the drinking water supply. Write your observations below.

*Observations:*

