



Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

While you complete each activity, please follow along with this lab sheet.

## GROUNDWATER AND SURFACE WATER:

*ARE THEY CONNECTED?*

1. An \_\_\_\_\_ is an underground geologic formation able to store and yield water.
  - a. The gravel in this container will represent \_\_\_\_\_ and \_\_\_\_\_.
2. Define groundwater:

\_\_\_\_\_

- a. List four things groundwater is used for:

i.

ii.

iii.

iv.

- b. Define infiltration:

\_\_\_\_\_

\_\_\_\_\_

3. Sketch a picture of your aquifer and label the saturated and unsaturated zones of the water table

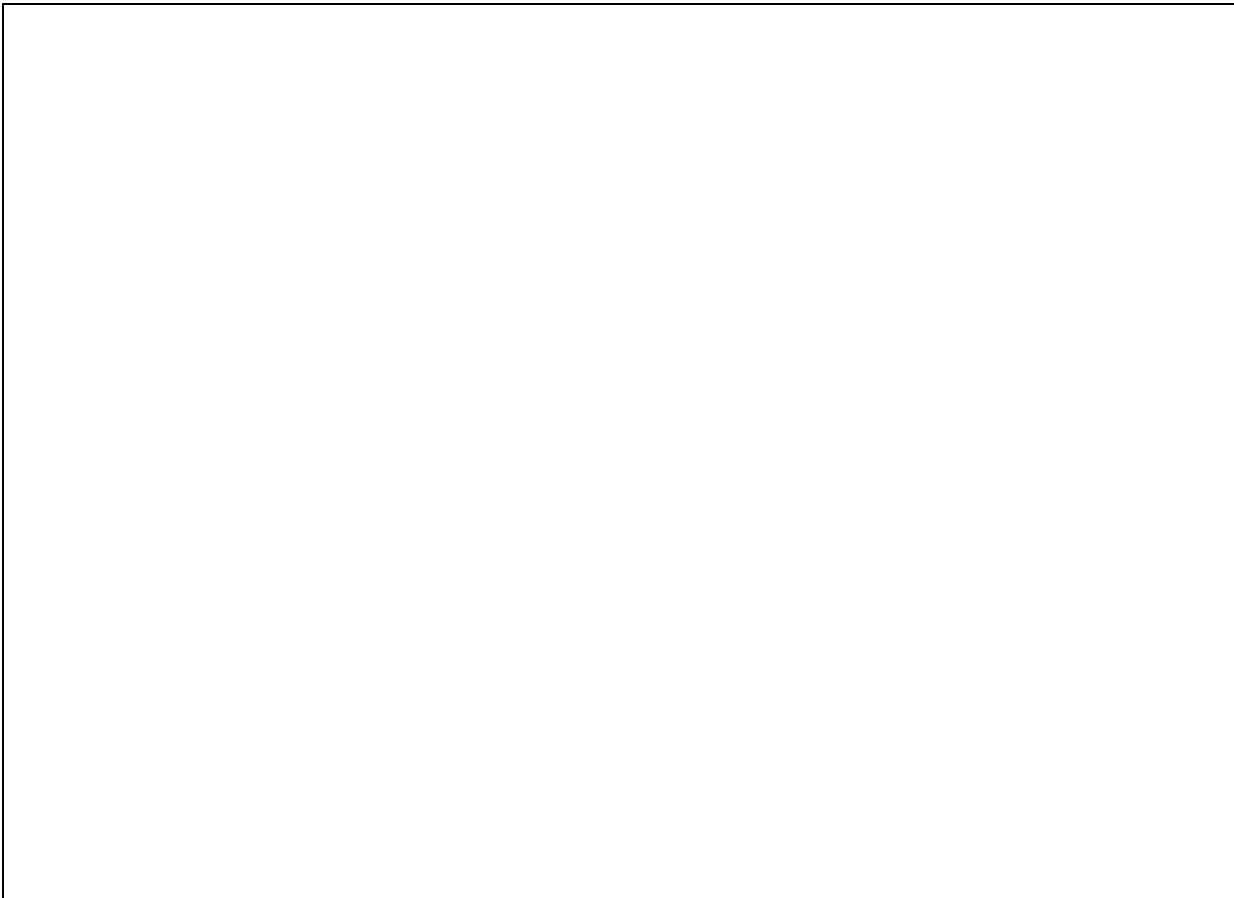
4. Define surface water: \_\_\_\_\_
5. Describe how your water table changed when you added water directly to the gravel \_\_\_\_\_

## Extension

Additional materials needed for extension activities:

- spray bottles filled with water
- different sized gravel: aquarium gravel vs outdoor patio gravel to show particle size
  - Potting soil, mulch, compost, natural materials
  - Clay
  - Colored pencils

A. Demonstrate how groundwater is a part of the hydrologic cycle. Record this by sketching a drawing of how you demonstrated the hydrologic cycle below. Label **surface water, evaporation, condensation, precipitation, runoff, recharge, groundwater, discharge**



\*Use a spray bottle or cup with holes punched in the bottom to sprinkle rain on the model, add hills, and a river to the model. Get creative with your materials\*

B. 1. Add different layers of strata to your model by using different materials (different grades of gravel, sand, soil, clay, etc.) Try different materials such as sand, clay, or foil to create bottoms of the surface water bodies in the model.

2. Include a **confined aquifer or confining layer** to the model.

3. Sketch a picture of your new model and label it with the confined aquifer

4. Add water to your new confined aquifer, note how long it takes for the water to seep into the layers

