

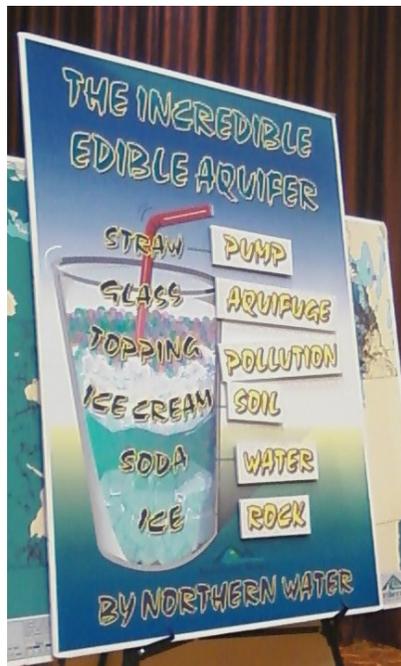
# Edible Aquifer

## Brief Description:

This activity teaches students about aquifers. Each student will create their own aquifer in a glass using edible ingredients. Each ingredient added to the cup represents a different section of the aquifer giving students an understanding of groundwater and the structure of the aquifer. This hands-on experiment also teaches how pollution can get into groundwater and how our actions can impact our drinking water.

## Vocabulary:

- Aquifer
- Confined Layer
- Groundwater
- Porous
- Saturated
- Water Table
- Recharge

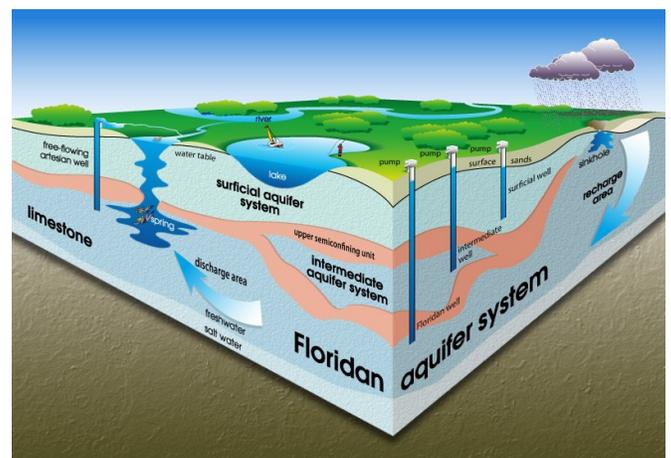


## Materials:

- Clear plastic cups
- Straws
- Crushed Ice
- Vanilla ice cream
- Lemon lime soda
- Chocolate sprinkles
- Chocolate syrup
- Green dyed coconut (optional)
- Colored sprinkles (optional)

## Preparation:

- Teach students about aquifers, groundwater, recharge, and contamination.
- Gather all the supplies and set out in order on a table for easy serving.



Picture from:

St. Johns River Water Management District

### Activity:

1. Provide each student with a clear plastic cup and napkin.
2. Add a layer of crushed ice covering about 1/3 of the cup to represent the rocks underground in the aquifer, you can also use chocolate chips instead of ice.
3. Pour lemon lime soda over the ice until the liquid is even with the top of the ice. This represents ground water.
4. Add a layer of ice cream, which represents the confining layer. This layer is usually clay or rock making it difficult for water to soak through. This layer helps restrict contamination.
5. Sprinkle chocolate sprinkles to represent the soil and if you like also sprinkle green-dyed coconut over the ice cream to represent grass and other plants.
6. To get water out of the aquifer, have the students “drill a well” by adding a straw. Have students sip some of the liquid. Explain that they have just simulated a well by using their straw to “pump” the liquid from the aquifer.
7. Squeeze some chocolate syrup and/or sprinkle colored sugar sprinkles over their aquifers to simulate a contaminate like oil, gasoline, pesticides, etc. Unfortunately, groundwater can become contaminated by improper use or disposal of harmful chemicals such as lawn care products, trash, gasoline, and many other products when they are not handled properly.
8. Pour lemon-lime soda (simulating rain which runs through the soil and flows down the aquifer) over your aquifer to show “recharge.”
9. While the students are cleaning up from making their aquifers, discuss with them other activities that could pollute the aquifer and have them come up with ways of helping to protect our groundwater. Have students notice how the ice looks around the straw and what could happen if all the water was sucked up through the well and not replenished.