

## Edible Aquifer Model

Groundwater is found underground in the cracks and spaces between sand and soil. These formations are called aquifers. In this activity we will create an aquifer model and compare how different sizes of rocks within an aquifer determine how much water can be stored.

Work in a team of 3 – each student choosing a different kind of candy to form their aquifer.

1. Place candy in the bottom of a clear plastic cup so that it is 1 ½ inches deep. (Representing different types of sand, gravel, or rocks).
2. Look at the spaces between the candy pieces in your aquifer and compare with your team members' aquifers. Predict which one will hold the most "water".
3. Count how many spoonful's of flavored drink is needed to cover the candy (represents water). Record how much "water" each type of candy aquifer can hold.
4. Add a layer of ice cream to serve as a "confining layer" over the water-filled aquifer.
5. Using a drinking straw, drill a well into the center of your aquifer.
6. Slowly begin to pump the well by sucking on the straw. Watch the decline in the water table.
7. Review what you have learned as you enjoy eating your edible aquifer

Adaptations: colored sugars, sprinkles or food coloring could be added to top to represent soils or contaminants on the Earth's surface. Add more flavored drink mix to represent a rain shower and observe what leaks down into the aquifer.

**Record data from each team member.**

Type of Candy	Number of spoons to fill up aquifer
1.	
2.	
3.	

### Questions for Discussion

1. Compare the amount of "water" that filled the spaces between the different types of candy aquifers. Examine the shapes and each type of candy and explain why some might hold more or less water.
2. Look at a diagram of the groundwater below Baton Rouge. How is your model different from the Baton Rouge aquifer?

