

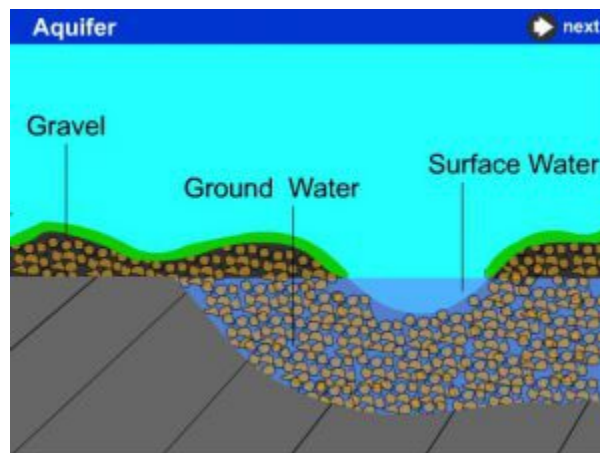
Edible Groundwater Aquifer

Lesson Goal: This experiment is to teach about the many layers within an aquifer system and how easy it is to drop something on the ground and later have it contaminate a drinking water aquifer system.

Age Group: 1 – 100 years old

Supplies List:

- Ice Cream (confining layer)
- Crushed Ice (gravel sand and rock layer)
- Sprinkles
- Clear Soda (water)
- Clear Compostable Cup
- Reusable Straw



- 1) First let's make our aquifer, place a layer of crushed ice in a cup to represent gravel, sand and rock.
- 2) Pour some soda within the cup
- 3) Add our confining layer or ice cream on top of the crushed ice. Add a little more crushed ice to the top of the ice cream layer.
- 4) Now place sprinkles on top of the crushed ice as your soils layer.
- 5) Review the layers and see if the children can notice the differences
- 6) Now place one tiny drop of food coloring on the side of the clear plastic cup. Explain that this is contamination to the ground (oils or chemicals that shouldn't be there)
- 7) Now place your straw or "drill" into the groundwater aquifer and start "pumping". Review what changes, where does the contamination go, how is the water shifted?

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- 8) Afterwards you can talk about how rainfall recharges the aquifer and pour a small amount of soda back on top and watch as the soda trickles down.
- 9) Afterwards enjoy your colored aquifer ice cream float.

References:

<https://www.palmdalewater.org/student-projects/fun-projects-build-an-edible-aquifer/>