

# Create Your Own Edible Aquifer Ages 3+

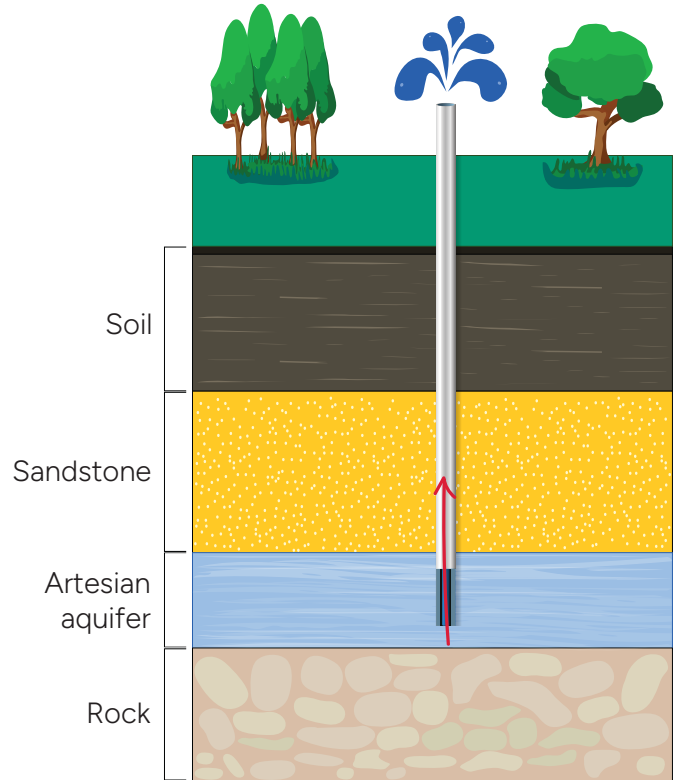
An aquifer is an underground layer of water-bearing, permeable rock, rock fractures, or unconsolidated materials. Groundwater from aquifers can be extracted using a water well. Water from aquifers can be sustainably harvested through the use of qanats. Aquifers vary greatly in their characteristics.

## What You'll Need:

- Clear cups
- Ice cream scoop
- Spoons
- Blue/red food coloring
- Drinking straw
- Vanilla ice cream or fruit sorbet
- Clear soda
- Small gummy bears, chocolate chips, crushed cookies, breakfast cereal or crushed ice
- Variety of colored cake sprinkles or sugars

## Directions

01. Fill your cup one-third of the way full with your "sand/gravel" ingredients.
02. Add enough "water" to just cover the candy/ice
03. Add a layer of "confining layer" over the water-filled aquifer.
04. Then add more "sand/gravel" on top of the confining layer.
05. Sprinkle on your "porous top layer"
06. Add the food coloring to the soda. The food coloring represents contamination.
07. Can you think of any examples of contamination?
08. Watch what happens when the contamination is poured on top of the aquifer.
09. Using a drinking straw, drill a well into the center of the aquifer.
10. Slowly begin to pump the well by sucking on the straw. This shows a decline in the water table.
11. Notice how the contaminants get sucked into the well area and end up in the groundwater by leaking through the confining layer.
12. Now recharge your aquifer by adding more soda. This represents a rain shower.



## KEY

**Gummy Bears/Chocolate Chips/Crushed Ice = Sand/Gravel**

**Soda = Water**

**Ice Cream = Confining Layer**

**Sprinkles/Sugar = Porous Top Layer**

**Food Coloring = Contamination**

**Drinking Straw = Well**

*Thank you to SouthWest Water Company for this fun recipe!*



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