



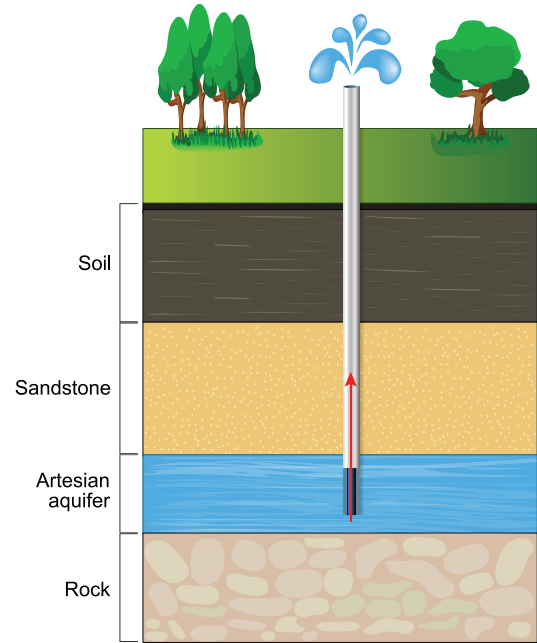
## DRINKING WATER WEEK

# Create Your Own Edible Aquifer

### Ages 3+

## 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



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.

**Flip over for directions** 

## 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**

## 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.

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