

EDIBLE AQUIFER

Build a Healthier Edible Aquifer

Supply List: (Per participant)

Clear Plastic Cup 8-9oz works well- well/aquifer

Straw - pump

¼ c. Cheerios or similar cereal- large particles/stones with pores for storing water.

¼ c. Rice Krispies or similar cereal/ granola...- smaller particles

½ c. Milk (Enough to stay below cereal) – Water

Optional: Small layer of whipped cream – Confining Layer

½ tsp of sugar (Best to use colored sugar crystals if available to show movement of contaminant.)

*If time allows repeat twice once with plain white sugar and again with colored sugar.

Steps:

1. Build Aquifer- Add cereal to cup with larger more porous on the bottom then add ¼ c milk.

Insert Straw and top with whipped cream if desired.

2. Take a “Water” Sample/Test your well -taste & observe changes in water level.

3. Add Contamination- shake colored sugar crystals

4. Rain- Add more milk another ¼ c

5. Test your well again

6. Students observe color change then taste and notice also flavor has changed.

7. Then we hand out spoons so the can eat and more milk if needed. I also had soy milk on hand too.

*Make substitutions based on food allergies.

Apply:

Discuss that some contaminants we see or smell and some we can't.

How does this relate to a variety of water resources? Wells, Aquifers, Reservoirs ...

Go Further: Try other activities –

- 4-H2O from <http://4-h.org/nysd> under past challenges
- SERIES “How Polluted Is It?” Add varying amounts of cornstarch to water and test with iodine.
- “Who Dirtied the Water” – Role Playing story of pollution of Boston Harbor from Native Americans to current times.- MAST Jim Spillane – contact kima@umext.umass.edu
- Build a water filtration system, windmill or water storage tank
- Set up a tour of local water authority or invite to speak to club

Facilitators Notes:

You can do with a little regular sugar the first time then the colored sugar crystals.

Give it a try! I also got the large boxes of cereal at BJ's so fairly inexpensive.

Follow food safety guidelines for your area. You may need individual serving size items, someone with SERV safe certification

4-H₂O Edible Aquifer - Adapted by Kim Pond, 4-HYDP Extension Educator & MA SET Liaison



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