

What Does Your Aquifer Look Like?

Adapted from The Groundwater Foundation

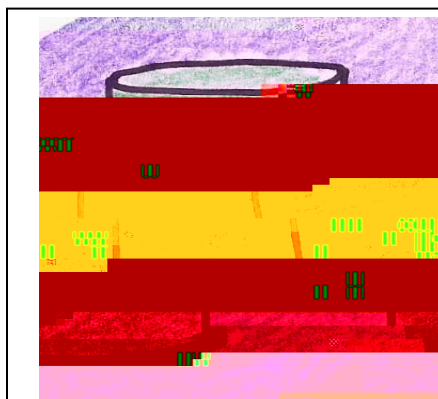
This activity is a quick and easy way to visually demonstrate the stratigraphic layers of aquifers and learn basic vocabulary.

Objectives-

- J Understand the movement and processes affecting groundwater

Estimated Time-

- J 45 minutes – 1 hour



Materials-

- J 2 clear cups
- J Sand, gravel and aquarium rock
- J Pitcher of water

Vocabulary-

- 1) Groundwater - water contained under the ground's surface, between particles of and in the cracks of sand, soil and gravel; a common source of water for drinking and irrigation.
- 2) Aquifer – the geologic formation of sand, soil and gravel where groundwater is stored.
- 3) Surface water – any body of water above ground: lake, pond, stream, river etc.
- 4) Contamination – an impurity in air, soil or water that can cause harm to human health or the environment.
- 5) Water table – the top of the saturation zone.
- 6) Saturation zone – the area where water fills the spaces between soil, sand and rock underground.
- 7) Infiltration - to increase the amount of groundwater through precipitation or surface water that absorbs into the aquifer, also called recharge.
- 8) Recharge – (infiltration)
- 9) Porosity – spaces between grains of sand, soil and gravel for water to travel through and the amount of connectedness between those spaces.

Vocabulary, continued-

10) Permeability – any material that allows water to penetrate through

Procedure-

- 1) Fill 2 cups with layers of sand and gravel to about 3/4ths from the top of each cup. Remember that in nature, aquifers consist of layers of sand, gravel and rock.
- 2) In one of the cups, pour water slowly into it. Watch how the water fills the spaces between the particles of sand a

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