



Aquifer Simulation Model

What will the ground water do?

Objective: Create contaminant sources and see how they move through an aquifer

Grades: 3-6

Materials:

Aquifer simulation model and accessories

Ground Water Contamination:

OK, now that you know about ground water and ground water contamination, you are going to do some experiments! The **aquifer simulation model** is used to see how ground water flows and also how contamination acts in an aquifer.

You will be able to simulate ground water movement and its interaction with lakes and streams and a pumping well. You can also introduce contamination from an underground storage tank, septic drainfield, or sewage lagoon.

Aquifer Simulation:

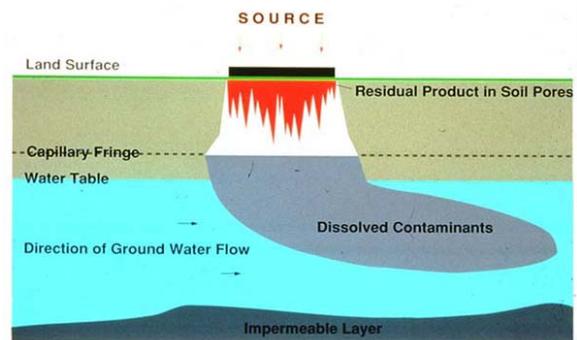
1. Fill the river up with colored water and then pump one of the wells near the river. What happens to
 - the water in the river?
 - the water level in the river?
2. By pumping one well, what happens
 - to the water level in the other wells?
 - if the water level falls below the pump intake?
 - to the water level in the two different aquifers?



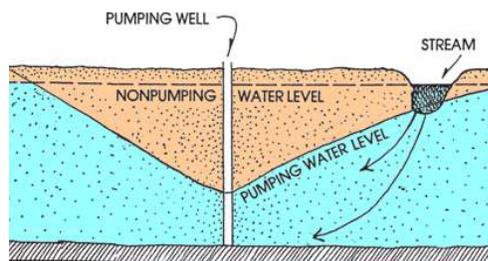
Contaminant Simulation:

1. Fill up the underground storage tanks and lagoon with different colors of water.

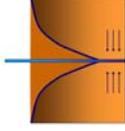
- What happens when you pump the nearby well?
- What color is the water?
- What would happen if you increase the pump rate?
- What happens to the water in the confined aquifer?



2. Place dye into the right-hand recharge chamber and clear water in the lake. What happens to the color of the water in the lake over time? Think of some other experiments and use the aquifer simulation model to see what happens.



**CERTIFICATE OF COMPLETION
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EDUCATION**

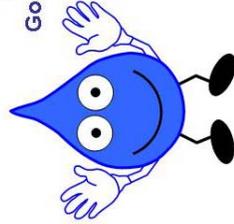


THIS CERTIFICATE IS AWARDED TO

SCHOOL

IN RECOGNITION OF COMPLETING LESSON 5

Congratulations
and
Good Job!



Teacher

Date