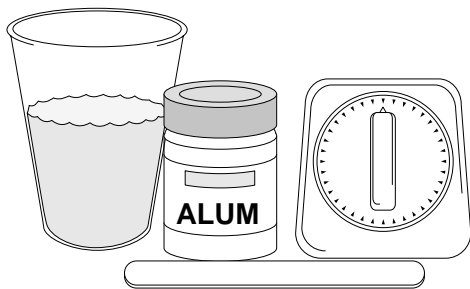


The Science of CLEAN WATER!



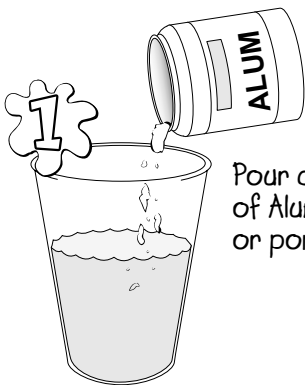
Sedimentation:

This experiment will demonstrate how "Sedimentation Tanks" work at a wastewater treatment facility. When we use water all sorts of things get dissolved in it. Here's one way to get them out.



Here's what you'll need:

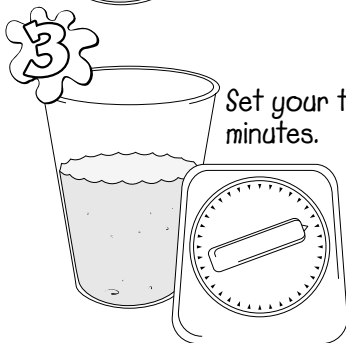
- Plastic cup about 1/2 full of pond or rain water.
- About 1 tablespoon of Alum.
- A stirring stick.
- An ordinary kitchen timer.



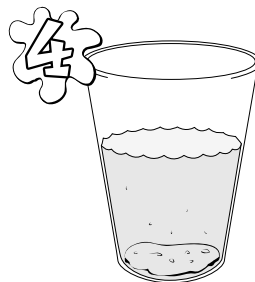
1 Pour about 1 tablespoon of Alum into the cup of rain or pond water.



2 Stir this solution until all of the Alum dissolves.



3 Set your timer for ten minutes.



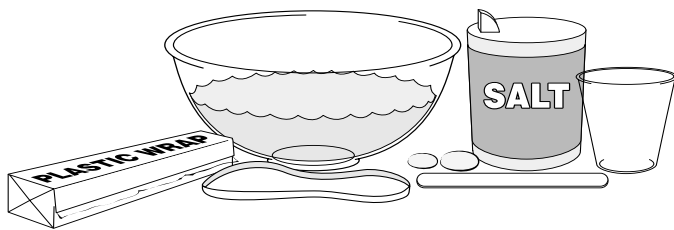
4 Now look and see what is on the bottom of your cup of water. This is all of the solid stuff that was "dissolved" in the water.

Summary: Rain water & pond water have many solids dissolved in them; sand, grit, etc. The Alum "binds" on these solids and brings them out of solution and makes them heavy so they settle to the bottom of your cup.



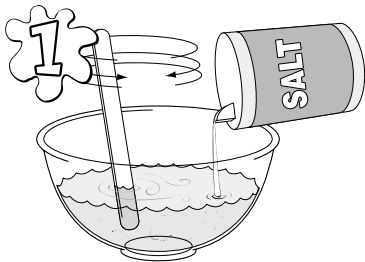
Distillation:

Here is another way to get solid stuff out of water. For example, do you know how you can make saltwater into freshwater? Try this experiment and learn how!

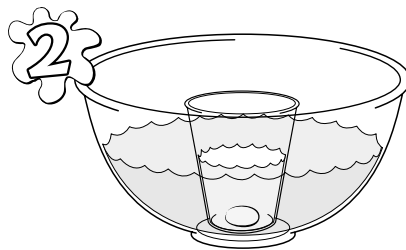


Here's what you'll need:

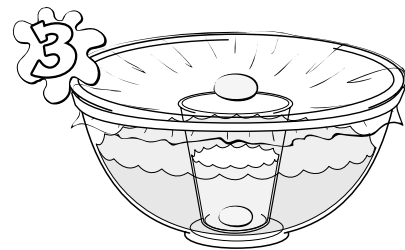
- A large bowl about half full of warm water.
- Salt.
- A small plastic cup.
- Plastic wrap.
- A stir stick.
- Two small, clean stones.
- A large rubber band or some string.



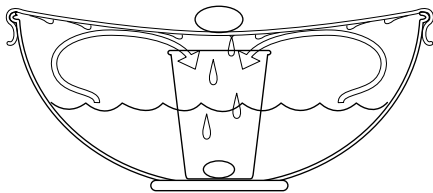
1 Stir about one cup of salt into the bowl of warm water.



2 Immerse the empty cup in the saltwater. Weigh it down with a stone if necessary.



3 Stretch plastic wrap over the top of bowl and place a small stone over the cup. Don't let the plastic wrap touch the cup though. Now place the bowl in the sun and check from time to time to see what's happening.



Summary: As the bowl is warmed by the sun the water begins to evaporate and condense on the plastic wrap. The salt is left behind and freshwater runs down the plastic wrap and falls into the cup.