



## **Washing Water Directions**

**1) Write two observations about your water sample.**

**2) Controlled variable- used as a comparison for an experiment.**

**-Use your pH paper to test the pH of your drinking water and your water sample.**

**-pH is a measure of how acidic or basic a solution is; pH of 7 is neutral, less than 7 is acidic and more than 7 is basic.**

**-Record your results**

**3) Measure the conductivity of your drinking water conductivity measures the ions found in the water. Record your results.**

**3) Aeration: The mixing or turbulent exposure of water to air and oxygen.**

**-to aerate, pour the water back and forth between the top and bottom halves of the bottle 10 times.**

**-Record any observations you may see.**

**4) Coagulation; the use of chemicals to make suspended solids gather into small flocs.**

**-Carefully add  $\frac{1}{2}$  teaspoon alum crystals to the water. Do not touch the alum.**

**-Slowly stir the mixture for five minutes. You should see particles forming clumps (flocs) which will settle out.**

**-Record your observations**

**-wait 5 minutes and record what you see.**

**-wait 5 minutes more and record any changes.**

**5) Construct a filter by layering the material of your choice in the top of the bottle.**

**record how your filter was constructed.**

**-slowly pour clean water through the filter to clean it trying not to disturb the layers as you clean the filter.**

**6) pour your sample slowly through your filter.**

**-record your observations**

**7) measure the pH of your "clean water"**

**8) How does the water you cleaned compare with the original sample**

**9) Where there some contaminants that were not removed?**

**-How would you change your method of cleaning water?**