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A Cleaner Water Supply? Removing Nitrates and Phosphates from Contaminated Water

The purpose of this project was to see if there is an easier way to clean nitrates and phosphates out of water. The procedure was to contaminate water and then use different methods to clean the water. There were physical methods and chemical and biological methods. The physical methods were distilling, filtering, and running contaminated water through rocks. The chemical and biological methods were adding iodine tablets, chlorine tablets, and activated sledge to the contaminated water. In the end, the most effective physical method was distilling which resulted in the elimination of almost all nitrates and phosphates. The most effective chemical and biological change was the activated sledge for the nitrates and the chlorine tablets for the phosphates. The activated sledge added more phosphates to the water most likely because the activated sledge had phosphates in it before and it was then let out when mixed with the contaminated water. The chlorine tablets got rid of some phosphates, but not very many nitrates. In the end the activated sledge worked best though because it eliminated almost all of the nitrates. The chlorine tablets had a very small effect on the amount of nitrates and phosphates in the water.