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Purifying the Arkansas

My project is about purifying water from the Arkansas River. This project is important because it is very important that we know how to purify water in case you get stuck in a natural disaster. I tested water from the Arkansas River for chlorine, nitrate, phosphate, and dissolved oxygen. My hypothesis was that the boiling method of purification will be the most effective method. I thought that it would be the boiling method because when you boil water all of the bacteria in the water dies when water reaches its boiling point. For the filtration method, I built a slow sand filter and poured 500ml of water for it. For the boiling method I would pour 500ml in the pot and let it boil for 3 three minutes. For the chemical method I poured 250ml of river water in to a collection bottle and put 1 drop of bleach in the water and let it sit for 30 minutes. For the distillation method I poured 500 ml of water in to a flask and I would let all of the water evaporate in to the collection bottle on the other side of the tube. When I performed my experiments I found that the boiling method, and distillation method were the most effective. My results were partially consistent with my initial hypothesis because both the boiling and the distillation methods were the most effective. With both the boiling and distillation method the dissolved oxygen and phosphate went down.