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| [Abstract](http://docs.google.com/abstract.html)  [Introduction](http://docs.google.com/intro.html)  [Hypothesis/Prediction](http://docs.google.com/hypo.html)  [Materials](http://docs.google.com/material.html)  [Protocol](http://docs.google.com/protocol.html)  [Literature Review](http://docs.google.com/lit.html)  [Data](http://docs.google.com/data.html)  [Statistical Analysis](http://docs.google.com/stats.html)  [Graphs](http://docs.google.com/graphs.html)  [Images](http://docs.google.com/images.html)  [Conclusion](http://docs.google.com/conc.html)  [Works Cited](http://docs.google.com/works.html)  [Recommendations](http://docs.google.com/recc.html)  [Acknowledgements](http://docs.google.com/ack.html)  [Biology Updates](http://docs.google.com/updates.html)  [Update #2](http://docs.google.com/update2.html)  [Home](http://docs.google.com/home.html) | **Biology Update #1**  I have always had an interest in Toxicology, in the last three years I have been following the company Phytotech Inc. located in Monmouth County, New Jersey. They have been working on environmental toxicology, more specifically a process in which certain plants have the ability to absorb certain metal contaminants in the ground therefore making the toxins easier to dispose of properly. Phytotech has been successful both in the extraction of metals, lead, but with uranium. Both of these environmental breakthroughs used hardy plants, Sunflowers, and Mustard Seed. The sunflower root system is very complex and covers a large amount of surface area with its small hair fibers and large roots.  These discoveries sparked my interest in that field, seeing as though the research was very new and very little is known. These remedies not only provide a cheaper solution but its a natural way of dealing with pollutants. My partner Christina and I are interested in evaluating the possibilities of using certain plants with strong root systems to absorb different types of ground toxins. We were thinking along the lines of studying components of acid rain as well as aluminum. When we researched acid rain we discovered that plants such as blueberries can deal with the acidity level. However certain crops appear to show detrimental effects from acid rain, thus destroying our agriculture.  We are interested in collecting plant samples located near refineries that emit harmful pollutants into the ground. We are also going to collect samples near areas of a heavy used freeways where pollution exists from cars, acid rain, and trucking accidents spilling contents. The idea behind collecting these plants located in these areas is to evaluate the plants structure of the plants already living there and then see whether they have started to adapt in anyway. As well as studying these collected plants we are hoping to research and then choose a few other types of plants that could both survive in these areas and also serve as an absorption system for metal pollutants.  This experiment requires a lot of research as well as a carefully designed experiment. In order to test the amount of pollutant/metal a plant absorbed we are looking to find a connection in the science world who can test the roots and soil for these metals and determine the amount present. Christina and I are starting to gather even more research prior to setting up our experiment. However, starting this weekend we are going to start brainstorming all of our options as to how to successfully carry this project out.  Christina and I intend to work together regularly every weekend and over the vacations. Although we will have to carry some of the work independent of each other |