# CALIFORNIA STATE SCIENCE FAIR
## 2002 PROJECT SUMMARY

**Name(s)**
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**Project Number**
**J0817**

**Project Title**
## Pure Water-Safe Earth: The Effect of Different Filters on Time It Takes to Filter the Water and on Quality of the Water

**Abstract**

**Objectives/Goals**
In my experiment I wanted to find out how different filters(coal, charcoal, kelp and sand)effected the time it took the water to filter and on quality of the water.

**Methods/Materials**
I used granulated coal, charcoal, kelp and sand. I put them into a paper filter which was in a funnel one at a time, and i put a 10cm long plastic tube at a 45 degree angle into the filter, and I poured 300ml of water with 7 drops of oil and some dirt through it. I timed how long it took the water to filer and i compared the water to my scale of cleanness. I did 13 and 14 trials.

**Results**
The fastest filter was sand with 21.7 seconds and the slowest filter was kelp with 27.5 seconds. The coal was the best quality filte with 4.69 and the worst quality filter was kelp with 4.

**Conclusions/Discussion**
My hypothesis was supported because sand was the quickest filter and coal was thre best quality filter. Knowing the data about the ability of natural filters we know can use them in our drainage system, so that the water that goes into the ocean is oil and dirt free.

**Summary Statement**
My project is about how different natural filters clean dirty oily water

**Help Received**
My parents bought my materials