#### **Science Fair Help**

Science fair can be an exciting and stressful time of the school year. In order to maximize excitement and minimize stress, Start Early!

## **Planning Help:**

Here are some sources to help you get started on the most important step in your project, planning.

This <u>Handbook for your Science Fair project</u> covers all steps, from coming up with an idea to displaying your finished work. Since it is written by PNM and UNM it is not only wonderful, it is written by the people who help put on our Science Fair so you know it will tell you exactly what they expect of our students.

Other places you get Science Fair advice:

The Internet Public Library has a good site for help choosing a topic:

For more general advice, the <u>Library of Congress</u> has a list of links for Science Fair help in choosing topics and doing research:

The Rio Grande Valley Library has a very good book about how you can use the Internet effectively while working on your project. The book is *Science Fair Success: Using the Internet*, written by Marc Alan Rosner, published by Enslow Publishers, Inc., 2006.

# **Water Experiments**

If you think you would like to do a project with water, this site has a list Science Fair ideas about water chemistry experiments for grades K-3, 4-6, 7-9, 10-12.

## Water-Related Ideas for Science Fair Projects – Elementary

- How does volume change with shape? Predict the volume of different shapes of containers. Measure the amount of water it takes to fill up containers of different shapes.
- What is the best kind of pool cover? Put identical containers of water next to each other in your home. Leave one cup uncovered. This is your control and represents a pool without a cover. Cover the others with paper, cling wrap, leather or whatever you can think of. You can try different colors to see if that makes a difference too. Hold the cover in place with a rubber band. See how much water is left after a week in each container. You might be able to invent a better pool cover!
- Does shape effect how much water evaporates? Pour 8 ounces or 250 mL of water into each
  of several cans that have varying diameter (bigger or smaller bases). Leave them next to each
  other in your home. Measure how much water evaporates from each in a set amount of time.
- How much water is wasted in a leak? Measure how much is wasted in 10 minutes, and then use math to figure out how much water is wasted in an hour, a day, a week, a year.
- How much water do you really use? There are websites that can help you keep track:

<u>The Center for Innovation in Engineering and Science Education (CIESE)</u> has a site to help you track your water usage.

The Environmental Protection Agency has a site to help you <u>keep track your water</u> <u>usage</u> and another site to help you <u>calculate your water usage</u>.

# Water-Related Topics for Science Fair Projects - Middle or High

Try to find something you are interested in and make sure that you chose a question that is answerable.

Some topic ideas are:

- Greywater This is the water from your bathroom sink, dishwasher, washing machine, or shower. Can we use greywater for watering lawns and plants? For a look at an award-winning project on this topic, look at the <u>Science Buddies</u> web site.
- How much water is wasted washing a car? Time how long it takes to wash your car. To calculate how much water it would take to do this without any conservation measures find out how much water comes out of your hose in 10 seconds and then figure out how much in a minute. How many minutes did it take to wash the car? Can you come up with a better way to wash your car and use less water? (Note: Wash your car in the yard, not on the street or driveway where the water is wasted and runs into the storm drains.)
- How much water could you save by harvesting rain water? You may want to order a Water Utility Authority pamphlet on rain harvesting for background information.
- What is the best kind of mulch to reduce the temperatures around landscaping plants? The best for reducing evaporation? What is the best kind of mulch around landscaping plants in Albuquerque?
- Where and how many trees should we plant in public areas? The City of Albuquerque has an interesting tree site that might help you get started planning the perfect city located in a desert.
- How much water do xeric plants save? The Water Utility Authority has a good <u>xeriscape</u> <u>pamphlet</u> to help you learn background information about xeriscaping.

If you need specific information about water use or conservation for your project, please contact Sharon Sivinski at 768-3245.