

8 grade F A L L 2 0 1 0
SCIENCE *comes alive*

*****INQUIRY THROUGH ACTION*****

What's up for this quarter?

- Science as Inquiry and Process (conducting research on the local environment)
- Concepts of Physical Science (exploring changes in state as well as physical and chemical properties)
- Concepts of Earth Sciences (cycles in nature, geologic events, and energy flow)

Students take on Scientific Investigations! ✕

Safety in the Lab

Students are both acting like and thinking like scientists these days! With this in mind, one thing scientists always do in the lab is to wear goggles. Not only does this look cool, it also prevents unwanted substances from damaging eyes.



LIQUID VOLUME LAB



Students used scientific equipment and the metric



system to follow a lab procedure to measure liquid volume. The result was a rainbow of specific volume if directions were followed exactly!

Science Notebooks....

are a way scientists keep track of all their data and experiments. It is also a tool used in science as a class to teach students organizational skills. Students

are required to keep an accurate Table of Contents for all entries in their notebook. Students keep all notes from class as well as lab work in their notebooks.





Testing for Acids and Bases

Students looked at 2 dozen regular household substances and tested them for their acidic strength. This gave students an awareness as to the chemicals that they use in daily life.... and that they eat! Students learned that the pH scale is a logarithmic scale. This means simply that something like lemon juice or coke with a pH of 2-3 is something that you consume, but if it has a pH of 1 it will dissolve your skin! Now that's scary! On the same note, our blood has a pH of 7.4. If blood's pH rises to 7.8 or drops to 7.0 (neutral)... you are dead.



Taking it Outside

Using Esatkuat Lagoon behind the middle school, students tested for not only the acidity level of the water, but also oxygen content, nitrogen level, turbidity, temperature and evidence of living organisms. Back in lab students looked at the Tadpole



Shrimp that were found in the water. Students then analyzed the overall health of the lagoon.

Setting a transect

Students are now investigating the long term implications of a changing climate. They are continuing a 3 year study of the active soil layer freeze-up. Measurements are taken weekly until the soil freezes. data will be compared to measurements taken in previous years to examine if climate change is affecting Barrow.

