

Chemistry Summer Assignment

The Chemistry of Water

Use the website www.edwardsaquifer.net to answer the following set of questions. Note: This is not the official site of the Edwards Aquifer Authority, but it is a good resource.

1. Click on “Hydrogeology” and then “Water Quality and Aquifer Protection.” Read this section.
2. From another site, find a periodic table (there are many online) and color it (you can use a computer or print it and use crayons) to show which elements might be found in San Antonio’s water. Color the ions one color and the metals another. Note: some ions will not be found on the periodic table, because they contain more than one element.
3. On the back of the periodic table, write down the definitions for these terms: element, ion, metal, BMDL, $\mu\text{g/L}$. Use any source, but make sure the definitions you choose are chemistry related.
4. From the same web page, find the answers to the following questions. Answer in paragraph form on your own paper. Do not plagiarize the website: put everything into your own words.
 - Does the Edwards Aquifer act as a filter? If so, how?
 - What are the issues involved in protecting the aquifer, San Antonio’s only source of drinking water, from contamination? What obstacles prevent us from enacting protection measures?
 - Using the map titled “General Flowpaths of the Edwards Aquifer,” decide which zone you live in and describe it. Bonus: print the Bexar County portion of this map and label your home (if you live outside Bexar County, make the map larger).
5. We are fortunate in San Antonio to have a clean, abundant water supply (even though we have to restrict our water use often during the summers). But this is not true worldwide. Find a news article (from a credible source) that explains a water crisis in a foreign country (pollution, scarcity, flooding, etc.). Print or copy the article and highlight the most important facts in it. Be prepared to share your article in class.