

Group WIKI research project

You will present a topic related to our chemistry course that links Chemistry with Technology, Society or the Environment. This will be done in groups of 3 or 4 students. As a group, you will create a wiki (see our website for links explaining what wiki's are) through a service called pbworks.com. As a group, you will have access to web pages which you would create and edit collaboratively over the internet. The service allows your teacher to track who has done what edits to a particular wiki, so that your progress, and your contribution to the group wiki, can be easily tracked and evaluated.

The following table provides some topics from which you may choose for your presentation. Topics from the list below will be assigned on a first-come first-served basis. The text references provide you with a starting point for your research. However, what you find in the textbook may not be sufficient to meet the requirements of your wiki assignments. Additional research using other sources may be necessary. You may also choose a topic of your own that is not in the following table, provided that it can be linked to one of our chemistry course units. Make sure you clear such a topic with your teacher in advance.

Topic	Text Reference	Unit
Air Conditioning coolants and the environment	P35	Organic
Toxicity of Organic Halides	P37 #7	Organic
History of TNT and its chemistry	P31 #7	Organic
Mustard Gas, then and now	P37 #5	Organic
Methanol as a fuel	P45 #10	Organic
Non-systematic names of common organics	P57 #8	Organic
Diabetes and Ketosis and Acidosis	P57 #10	Organic
α -hydroxy acids, structure and uses, pros and cons	P63 #10	Organic
Animal Skin Tanning and tanic acid	P68 #9	Organic
Case study of Contributor to Atomic Theory (pick 2 from list)	P168	Structure
Electronic and Magnetic spin resonance in medicine	P198 #17,18	Structure
Superconductivity	P202 #9,10	Structure
Work of Dr. Richard Bader, Quantum Mechanics	P202 #8	Structure
Types of Spectroscopy	P207 #1	Structure
Indepth study of IR Spectroscopy	P240 #30	Structure
Optical Isomers especially in medicine (example: Tholidamide)	P247 #8	Structure, Organic

Taste and molecular structure	P250 #6	Structure
Types of Contact Lenses and their structures	P267 #13	Structure
Hot and Cold packs, Chemistry and Uses	P305 #8	Thermo
Propane refrigeration	P312 #7	Thermo, Organic
Energy Debate, pros and cons of each source	Section 5.6 P341	Thermo
Chemistry of Catalytic Converters	P371 #5	Rates
Gout, its chemistry and medical info	P458 #8	Equilibrium
Haber Process in detail and its current uses	Section 7.4, P461	Equilibrium
Pregnancy and Acidity	P546 #15	Equilibrium A/B
GERD, its chemistry and treatment	P550 #9	Equilibrium A/B
Acid free paper, its chemistry and uses, pros/cons	P550 #10	Equilibrium A/B
Aniline Dyes, chemistry and uses	P580 #21	Equilibrium A/B, organic
Aspirin and the Stomach Wall chemistry	P580 #22	Equilibrium A/B, organic
Lactic acid buildup in athletes and its chemistry	P580 #23	Equilibrium A/B, organic
Acid deposition	Section 8.6 P621	Equilibrium
Electric Cars, current models and chemistry of their storage/fuel cells	P650	Electrochemistry
Chemistry and types of rechargeable cells	P690 #13	Electrochemistry
Corrosion protection for buried pipelines and other infrastructure	P714 #10	Electrochemistry

Your wiki (or collaborative web page) must contain all the information you have found about your topic, presented in an organized and pleasing-to-the-eye manner. You must present the information in your own words (ie. No copy/paste from the text of webpages. This is easy to detect, so don't try it! Doing so will earn everyone in the group a mark of zero on the wiki.[plagiarism]) You can, however, include images and multimedia content from other websites, properly referenced. However, the entire size of your wiki cannot exceed 30.0 MB.

Your wiki must contain, at a minimum, the following:

- 1) A title 'page', including your topic title, the names of all group members, and a short one paragraph description of your topic (this is often called an 'abstract').
- 2) A minimum of three additional 'pages' that contain the information from your topic. Use the 'pages' to organize your information into sections. You may use more than three

- 'pages' if you wish.
- 3) There must be links on each page to easily navigate to other pages of your wiki. See the sample projects on the wiki site for examples of how to do this in different ways.
 - 4) A final 'page' that acts as a reference section, that lists all of the sources of information you used. You may use any reference format you wish, stay consistent with one format. Information about different reference formats available here:
<http://depts.gallaudet.edu/englishworks/writing/main/style.htm> .
If you reference a web page, make the reference a clickable link.

Target Audience

Your target audience for your wiki is a typical student from grade 12. The language you use must be appropriate for this age group. The most common error I see when students attempt this is to make their work much too complex, containing a lot of scientific language and terms which a typical grade 12 student would not know. It is easy to make this mistake as much of the research material you will read is targeted to the author's peers, usually professionals in that particular field. When you present your findings, you must reword them to be appropriate for a typical grade 12 student.

PBWORKS account.

You will be given a userid and password to access the course wiki account.

Time lines:

Mon Oct 26, 2009: Groups must be chosen. You may choose anyone from any of the three enriched grade 12 chemistry courses as group members. Once chosen, a group cannot be changed.

Fri Oct 30, 2009: Group has chosen a topic and told Mr. Bontront, or a new topic (not on the list) has been approved by Mr. Bontront. You may change your topic at any time, however, you must tell Mr. Bontront what your new topic is. That way, Mr. Bontront can ensure that no topic is covered by more than one group.

Mon Mar 8, 2009: Your wiki must be complete (editing rights will be turned off on this date!)

BONUS timeline dates: From time to time, Mr. Bontront will announce a bonus due date by which a certain portion of your wiki must be completed.

Your wiki will be marked using the following rubric.

Criteria/Category	Level A (1-2 points)	Level B (3-4 points)	Level C (5-6 points)	Level D (7-8 points)
Factual Content of wiki (K/U)	Content is minimal, very little detail	Content is minimal, some detail present	Content is acceptable, appropriate detail present	Content is outstanding, great detail is present
Creators understand the content (K/U)	Language used indicates creators understand little of the content	Language used indicates creators understand some of the content	Language used indicates creators understand most of the content	Language used indicates creators understand all of the content
K/U total:	_____ / 16			
Physical layout (C)	Layout of wiki follows little logic, no organization	Layout of wiki follows some logic, minimal organization	Layout of wiki follows a logical pattern, good organization	Layout of wiki is innovative, very logical, with excellent use of organizational techniques
Artistic appearance (C)	Minimal use of multimedia content, content used is not appropriately placed	Some multimedia content, but its placement is not appropriate	Multimedia content is appropriate, well placed, and adds to the artistic impact of the document	Multimedia content adds artistic flair to the document, enhances the written content instead of just supporting it
C total:	____ / 16			
Reference sources (A)	Only 1 to 3 different reference sources	4 to 6 different reference sources, all of the same type (i.e. all websites)	More than 6 different reference sources, all of the same type	6 or more different references source, of 2 or more different types (i.e. some websites, some paper publications)
Target audience (A)	Language used is not at all appropriate to target audience (i.e. much too complex, or much too simplistic)	There is a minimal attempt at reaching the target audience with appropriate language use	Most of the language used is appropriate for the target audience.	All of the language used is appropriate for the target audience (i.e. neither too simplistic or too complex)
A total:	____ / 16			

Each of the three category marks will be given a weighting factor of 3 (equivalent to a unit test).

To make sure that all group members contribute fairly to the creation of the wiki, your editing history of the wiki will be tracked by Mr. Bontront. The wiki editing tracking information may be used to adjust individual project marks.