**Chemistry In the World Project – Version B Spring**

**DUE DATE: Wednesday, May 20**

\*\*This will count as a quiz grade. If you are absent the day it is due, you must send me an email with your powerpoint by 7:25 a.m..

**Directions:** Use internet resources to find out as much information about your topic. Then create a 3 fold poster with slides about your topic. You will be sharing your topic with your peers during a 2-3 minute presentation that we will do as a simulated conference poster session.

**\* Things that MUST be included!**

1) organized, relevant, appropriate information

2) pictures/diagrams

3) at least one chemical structure or chemical reaction

4) a slide about how your topic DIRECTLY relates to what we learn in THIS chemistry class

5) a list of scientific sources that will be cross-checked by me (NOT Wikipedia).

**\* Other things you could include:**

What is it used for?

How does it affect your body or the environment?

How is it created?

How does it work?

Where is it found?

Why is it significant?

Is it beneficial or harmful?

**Topics to choose from**:

* Where does chlorine in pools come from?  Why is it there?  At what pH should a "healthy" pool be kept?
* What is EDTA, what is it good for, and how does it work?
* List 5 harmful chemicals in cigarette smoke, and tell what they do to your body.
* What is pectin? What is cellulose? Where are they found? What do they do?
* What is gunpowder, chemically? How good an explosive is it?
* What is the difference between silicon and silicone? What are their different properties? What are their respective best uses?
* How does the liquid crystal display in your watch work?
* What experiment made Stanley L. Miller and Harold C. Urey famous in 1953? What did they learn?
* What is terra forming? Do we care? Why or why not?
* What is thalidomide? Why isn't it common today? When was it common? Is all thalidomide the same? Explain.
* How does spray-on static guard work?
* How does dry-cleaning work? Why is it "dry?" What chemicals are used? Is it better or worse than regular cleaning?
* What is the formula for chloroform? What does it do in your body? What are the side effects?
* Is there such a thing as artificial blood? What is used? What is the chemical idea behind it?
* Is it possible to breathe a liquid, like in the movie, "the Abyss?" Tell me about it.
* Why do transition metals form so many pretty colors when dissolved in water?
* What is the formula for gibberilic acid? For what is it used for? Why is it hard to get hold?
* What are the five most addictive drugs/substances known? Describe the chemistry behind each one.
* Describe how it is possible for cement to "dry" underwater? What is the difference between cement and concrete?
* What is testosterone? Draw this molecule. Tell where it comes from and what it does.
* Where is taxol found and what is it used for?
* What is the connection between urea and ammonia and cleaning gerbil cages?
* Is there such a thing as a UV or IR "rainbow?" Who would be able to see it? Where could you find one?
* How is mercury used in the gold mining industry?
* Why is the sky blue? Explain the science behind why we see certain colors.
* For what is PCR used?  Briefly describe what this is and why it is so important.
* Where/what is the coldest place in the universe? How cold is it? Why?
* What is the average pressure in outer space?  Support your answer/show your work.
* What is the average temperature in outer space?  Support your answer/show your work.
* What are endorphins? Show the chemical structure of one. Where do they come from, and what do they do?
* What chemical makes up the film on which movies are printed? What was it made of in the 1920s? Why was this a problem?
* What's the big deal with BGH? Why won’t you find it in a health food store?
* What common substance contains theobromine? Compare the structure of it to the structure of caffeine
* What is estrogen? Draw this molecule. Tell where it comes from and what it does.
* What is tetrodotoxin? Draw this molecule. Tell where it comes from and what it does.
* What is the chemical formula for phosgene? For what is it used? What does it do?
* What is the chemical formula for mustard gas? For what is it used? What does it do?
* What is lycopene and where is it found? Is it good or bad?
* What are the symptoms of antimony poisoning? How does it kill you?
* What's the story with DDT? What is its chemical formula?
* What was the “Lake Nyos Disaster?” Tell me about the chemistry involved.
* For what does the human body use folic acid?
* Compare and contrast the chemistry of ether and laughing gas.
* What is the structure of chloroacetophenone? This substance is used as tear gas.  How does it work?
* Why do salt water fish die in fresh water, and visa versa? Are there any fish that can live in both salt water and fresh water?
* What is napalm, chemically? How does it work? Would it make good matches?
* How do nerve gases work, generally?
* How do refrigerators work?
* What is the chemical that makes spicy food spicy? How does it work?
* What is turmeric? Is it good or bad for us?