

First Semester Project
Informational Poster on an Element - Requirements
Due: Wednesday 11/13/2013

You will be assigned an element (randomly or assigned by teacher). Your task is to represent your element in a visual and informative poster. You must also author a one to two page write-up including specific information about the element. Information and visual components that must be included in your poster are explained below.

Visual/Formatting Requirements for Poster:

- Can be no smaller than 20 inches x 20 inches (no trifolds!!)
- A visual or artistic representation of your element.
 - This must be *original, creative, and created by YOU*. You cannot use a photo from the internet.
 - Can be digital, 3-dimensional, painted, drawn, abstract, literal, or anything else that you come up with but you must be able to explain the visual and how it represents the element in some way. Get your format approved by Mrs. Rugh if you have an unconventional idea you want to try.
 - The visual (in whatever chosen format) must relate in some way to a significant aspect(s) of the element (i.e. the common uses, name derivation, special properties, etc.). See <https://uwaterloo.ca/chemistry/international-year-chemistry/periodic-table-project> for examples...

Required Information on Poster (in addition to visual):

- Brief (one paragraph) explanation of your element visual
- Element Symbol
- Element name
- Atomic number
- Atomic mass
- Melting point
- Boiling point
- Density
- Electronegativity
- Number of isotopes
- State (solid, liquid or gas at room temperature)
- Color
- Classification (metal, nonmetal, or metalloid)

Required Information in Write-Up (1-2 pages, Times New Roman, double-spaced):

- Element name
- How the name was derived (named after Norse god, city, country, etc.)
- Element type (noble gas, transition metals, etc.)
- Who and when element was discovered/isolated in pure form by
- How the element was originally isolated or discovered (fractional crystallization, electrolysis, etc. Be sure to explain what the process means)
- How the element occurs naturally (minerals, organisms, etc.)
- How element is currently isolated (mined and smelted, electrolysis of ore, cooling of gas to liquid form, etc.)
- Uses
- Special properties (high melting point and thus used in alloys for jet turbine blades, biochemistry, etc.)
- Interesting historical facts about element and/or discoverer (chlorine first used as poison gas during World War I, etc.)

Required References (minimum of one each):

- Chemistry texts
- Encyclopedias
- One respectable Internet site (university, research institute, etc.)
- Suggested (super cool) references you should consider using:
 - The Periodic Table of Videos (posted in room 123)
 - Theodore Gray's book *The Elements* (good resource for general information as well as potential inspiration for visual)
 - Hugh Aldersey-Williams's book *Periodic Tales* (Mrs. Rugh has a copy and library may have some copies)

ALL REFERENCES MUST BE LISTED IN A COMPLETE WORKS CITED PAGE IN PROPER MLA FORMAT, attached to the write-up portion of the project.

**Chemistry First Semester Project
Element Poster Grading Rubric**

Name: _____

Visual Elements of Poster (30 pts total)

Creativity/originality (5 pts) _____

Visual represents a significant aspect of element (10 pts) _____

Visual is explained in one paragraph on poster (5 pts) _____

Poster is neat and written info is legible (5 pts) _____

Poster is no smaller than 20 in x 20 in (5 pts) _____

Required Information on Poster (2 pts each; 25 pts total)

Element symbol (3 pts...it's important) _____

Element name _____

Atomic number _____

Atomic mass _____

Melting point _____

Boiling point _____

Density _____

Electronegativity _____

Number of isotopes _____

State (solid, liquid, or gas) _____

Color _____

Classification (metal, nonmetal, or metalloid) _____

Required Information in Write-Up (5 pts each)

Element name and how the name was derived _____

Element type _____

Who and when the element was discovered/isolated by _____

How was it isolated or discovered (and description thereof) _____

How the element occurs naturally _____

How element is currently isolated _____

Uses _____

Special properties _____

Interesting historical facts about the element and/or the discoverer _____

Write-up is 1-2 pages, correct font and spacing _____

5 points extra credit for anything above and beyond the norm _____

Works Cited in proper MLA format (20 pt)

Includes at least one of each of the following reference types:

Chemistry texts

Encyclopedias

One respectable Internet source

Suggested resource _____

TOTAL

_____ 125