

## 2017-18 Summer Reading Assignment- Chemistry I Honors

Welcome to Chemistry I Honors. I look forward to meeting you and helping you learn chemistry.

This poster project will give you the opportunity to earn up to 20 points of extra credit for your first quarter grade. While the project is extra credit, viewing the videos is required. You will be tested on this material the first week of class. It is strongly recommended that you preview the videos before you come to class on the first day.

Projects will be due no later than August 17<sup>th</sup> or 18<sup>th</sup>. Late projects will not be accepted.

It is my hope that the following assignment options will help you realize how chemistry impacts your world.

Before you begin your project. Be sure to watch and take notes on the video tutorials listed below. The tutorials provide information that will help you distinguish between chemical and physical properties and change. This information is prior knowledge you will need to know to start your chemistry class.

Classification of Matter: <https://www.youtube.com/watch?v=WBWf1T4V7xE>

Physical vs. Chemical Changes <https://www.youtube.com/watch?v=4ZGULLWEy1c>

Physical vs. Chemical Properties <https://www.youtube.com/watch?v=Z5L2NOMEWT0>

<https://www.youtube.com/watch?v=oF0IN0jZYx0>

Density <https://www.youtube.com/watch?v=PpMGjzdSCiE>

<https://www.youtube.com/watch?v=36d1VdcUEJI&t=319s>

Separation of mixtures <https://www.youtube.com/watch?v=JanmdsuyUc4>

Choose one of the two following options:

### **Option 1: PHYSICAL AND CHEMICAL PROPERTIES OF POSTER MATTER PROJECT**

**Objective:** Using elements you find most interesting, you will discover uses for these elements in everyday life, the human body or medicine and differentiate between the elements chemical and physical properties.

**Targets:** I can differentiate between physical and chemical properties of matter.  
I can find evidence from informational sources to support analysis, reflection, and research.  
I can cite specific textual evidence to support analysis of science and technical texts.

## Instructions:

Select any 7 elements from the periodic table. Research each element's chemical and physical properties. Discover how the elements are used in daily life, the human body, or medicine. Make a colorful poster that demonstrates how the element is used and a chart to organize information about the chemical and physical properties.

Your project may be more interesting if you pick elements that are useful in medicine. These may include, but not limited to: [lanthanum](#), [technetium](#), [yttrium](#), [gallium](#), [arsenic](#), [antimony](#), [iodine](#), [cerium](#), [selenium](#), [cobalt](#), [platinum](#), [manganese](#), [boron](#), [bismuth](#), [sulfur](#), [gold](#), [copper](#), [magnesium](#), [aluminum](#), [silicon](#) and even [beryllium](#).

Each element on the poster must feature the following information:

- a. the element's name and symbol.
- b. two pictures that illustrate how that particular element is utilized in everyday life, human health or medicine.
- c. Each picture must have a caption that explains to the reader how it is being used in the product being displayed.
- d. The poster must be larger than 8.5" by 11".

Research the difference between physical and chemical properties. You will need to list 2 examples of each property for each of your 7 elements. You will find many terms for which you are not familiar. After looking up the definition of the term, if you still do not understand what it means, do not include that characteristic in your chart. Each element has many chemical and physical properties. You will not have difficulty finding characteristics you do understand.

- e. Include a chart with the following information about each of the 10 elements:
  1. 2 chemical properties
  2. Definitions of each chemical property
  3. 2 physical properties
  4. Definitions of each physical property
  5. List of uses for the element
- f. List your sources in APA format. If you need help with this process, the following website will be helpful. For full credit you must have at least 5 sources.  
<https://owl.english.purdue.edu/owl/section/2/>

## **OPTION 2: CHEMICAL AND PHYSICAL PROPERTIES BROCHURE or POWER POINT PROJECT.**

If you prefer to do your work on a computer, this option is for you. Option 2 would include all of the requirements of the poster project but in the form of a brochure or power point.

## Grading Rubric

CATEGORY	EXCEEDS EXPECTATIONS	MEETS EXPECTATIONS	APPROACING EXPECTATOINS	DOES NOT MEET EXPECTATIONS
Content	Includes all required information for more than 2 physical and chemical properties in chart form with 2 uses for each of 7 elements clearly described for each picture.  14 points	Includes all required information for 2 chemical and physical properties in chart form with 2 uses for each of 7 elements clearly described for each picture.  10 -13 points	Contains pictures for the 7 elements but is missing 1-3 pieces of information in the chart and/or pictures are not clearly identified.  6-9 points	Does not contain 7 elements and/or is missing 4 or more pieces of information in the table or poster.  0-6points
Appearance/ Creativity	Exceptional product with colorful pictures cut out neatly and arranged in a visually pleasing way.  4	Most pictures are colorful, cut out and arranged neatly.  3 points	Contains 14 pictures but collage is disorganized.  2 points	Missing pictures and/or very little effort evident.  0 points
Sources	Five or more sources are correctly cited in APA format.  2 points	Three sources are correctly cited in APA format.  1.5 points	Two sources are correctly cited in APA format.  1 points	0 source correctly cited in APA format.  0 points

NGSSS Benchmark SC.912.P.8.2:

I can differentiate between physical and chemical properties and physical and chemical changes of matter.

LACC Benchmark 1112.WHST.3.9:

I can find evidence from informational texts to support analysis, reflection, and research.

LACC.910.RST.1.1:

I can cite specific textual evidence to support analysis of science and technical texts.