

Third Year
Chemistry Workload
Friday, June 26, 2009

Directions: On a size one paper, answer each question briefly. One or two sentences may do. Aside from your chemistry textbook, internet links are provided for your reference.

1. Even as early as 1000 B.C., the early civilizations were already skilled with different crafts like extracting metal from ores, making pottery, fermenting beer and wine, making pigments for cosmetics and painting, extracting chemicals from plants for medicine and perfume, making cheese, dying cloth, tanning leather, rendering fat into soap, making glass, and making alloys like bronze. These technologies apply concepts in chemistry. However, during that time, chemistry was regarded as an “empirical science”. On this particular context, what is the meaning of the phrase “empirical science”?
2. Alchemy focused on making valueless metals converted into gold. Moreover, alchemists were also interested in making the philosopher’s stone or the elixir of life which would give immortality to whoever possessed it. However, alchemists failed to produce gold out of ordinary metals and the philosopher’s stone. Even though these alchemists failed, some of their practices became the basics of modern inorganic chemistry. Name these alchemical practices.
3. Define the phrase “phlogiston theory”. Why do you think the phlogiston theory encountered a lot of questions and debates from the different scientist during that time?
4. Explain how Antoine Lavoisier’s *law of conservation of mass* debunked the phlogiston theory.

Reference:

<http://en.wikipedia.org/wiki/Alchemy>

<http://en.wikipedia.org/wiki/Phlogiston>

<http://www.jimloy.com/physics/phlogstn.htm>

http://www.iscid.org/encyclopedia/Law_of_Conservation_of_Mass

Third Year
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Monday, June 29, 2009

Direction: Below are different careers. In a size one paper, explain how each career applies knowledge on the concepts and principles of chemistry. A sentence or two may do.

1. doctor
2. civil engineer
3. mortician
4. crime scene investigator
5. meteorologist
6. pharmacist
7. dentist
8. forensic scientists
9. farmer
10. hair stylist

Third Year
Chemistry Workload
Tuesday, June 30, 2009

Direction: Using your book and the internet, research at least five famous Filipino chemists. Summarize the data that you get using the format below. Use at least 2- 3 size one papers for this. *Note:* Do not write anything at the back of your paper.

Filipino Chemist:

College degree and school graduated from:

Important contributions in the field of chemistry:

Why do you think his/her contributions are important?:

Third Year
Chemistry Workload
Wednesday, July 1, 2009

Direction: Answer each question on a size one paper.

1. In not more than 5 sentences, explain why the metric system of measurement is more convenient to use than the English system of measurement.
2. What are the prefixes in the metric system which are used to convert a smaller quantity to a larger quantity and vice versa?
3. Using your knowledge on the prefixes in the metric system, convert these measurements to the required unit:
 1. 10 mm = _____ cm
 2. 275 cm = _____ m
 3. 500 m = _____ km
 4. 1500 g = _____ kg
 5. 1500 kg = _____ g

Reference:

<http://www.metric4us.com/why.html>

http://en.wikipedia.org/wiki/Metric_system