

High School Chemistry and Physics Days

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Myths

Chemistry and physics (as well as other science and technology courses) are only important if you are really smart, really good in science, or want to be a scientist. Right?

Wrong! I bought into that myth and stopped taking science after high school biology. No chemistry, no physics. Because my strengths were in communications. I opted to take two languages and to shorten my school day in order to have a paying job. BIG MISTAKE. Why? One never knows where a career leads.

My Career Path

I suspected during my freshman year of college that not taking all the science I could in high school was a mistake. To fulfill my science requirement, I took biology and at the college level, it was based on having a solid foundation in chemistry, which I did not have. I struggled but passed biology and thought “This does it now for science.” Wrong again!

I graduated as an English major, taught English courses for a while, and went to graduate school for public communications. Research methods was a required course. Again, I saw that having more experience with the scientific method, the ability to start with a hypothesis and develop a methodology to test it, would have been extremely valuable.

During the early years of my career teaching all kinds of English courses, this lack of chemistry and physics did not hurt me too much. But when I transitioned into technical communication, I was in for a big surprise.

Many careers assume that you have a solid background in science. Scientific literacy enables you to understand how the world works and enables you to communicate with scientists. As owner of a small technical writing business for over 20 years, I now know how important it is to have a solid background in the sciences as well as other content areas.

Many of the topics for which we have written manuals throughout the years require knowledge of basic concepts in the sciences, technology, math, and more.

Technical Communicators

What do technical communicators do?

- We write the instructions that accompany all the gadgets that you buy.
(cameras, video games, computers; cosmetics; medications)
- We write manuals for individuals who operate complex products.
(radiology equipment that scans your body to identify and treat broken bones or abnormal cells)
- We write manuals for the specialists who install complex equipment and service it when there is a problem.
(sterilizers that keep medical instruments free of contaminants)
- We learn about medical conditions by reading scientific papers and talking with specialists about how these conditions are treated. Then we write Web site content for individuals who want to be informed consumers when it comes to their healthcare needs.
(What are the causes of obesity and the best ways to treat it, including bariatric surgery? What are superbugs and what places us at risk, especially during hospital stays? What can you expect during an MRI – why is it important to remove all jewelry and metal objects during this exam?)
- We make sure that warnings (harm to people or damage to equipment) are included throughout all the deliverables that we write.
(flammable, electro-magnetic emissions, laser radiation, hazardous fumes, biohazards)

Is science important when we write these various documents? You bet!
Why?

- When we do our research (reading, talking with specialists, watching procedures), we need a solid foundation in order to understand the content.
- When writing, we need to communicate to our audience accurately and completely. Our work can be a matter of life and death!
- Though we may not be scientists, we need to know if something is just not right.

(the correct unit of measure, the correct conversion between US and metric, the correct abbreviation – MB is for megabyte, while Mb is for megabit; < is less than, > is more than)

- When doing our work, we need to follow a logical, methodical process.
- When organizing our publications, we need to understand where the content belongs.

(part of the mechanical, pneumatic, hydraulic, or electrical system)

Hiring Criteria

As a business owner, I match the best technical writer to the job. Those with strong science background:

- Communicate well with the specialists (speaking their languages saves time, increases credibility, and results in better publications)
- Use a scientific approach to solve problems (including those to resolve publishing issues)

Two of my top technical writers majored in physics in college!

Future Jobs

President Obama is making a commitment to energy initiatives. With the necessity now to consider various sources of energy, we all need to know the differences, the advantages, the disadvantages among energy from:

- Coal
- Natural gas
- Petroleum
- Hydroelectric sources
- Nuclear sources
- Other sources

Bottom Line

Study chemistry and physics! Whether you become a scientist, a technical communicator, or something else, you will have so much more to offer! You are our future when it comes to innovation and new technologies in health, energy, and so many other important areas. We are counting on you to solve some very big problems!