

## An Introduction to Matter and Measurement

### An Introduction to Chemistry and the Scientific Method

#### **An Introduction to Chemistry [Page 1 of 1]**

Professor Harman: When you say, "What is chemistry?" say it a little more exaggerated and have a long, pregnant pause. What a dumb question.

Professor Yee: What is chemistry and why should you study it? A pretty dumb question, don't you think?

Professor Harman: How many times have you opened your textbook and that's the first sentence? "What is chemistry? What is biology? What is geology?"

Professor Yee: Well, we're here to show you the answer, not tell you the answer. We're hoping that our enthusiasm for the science that we do is going to get you excited about chemistry.

Professor Harman: My name's Dean Harman. I'm a professor of chemistry at the University of Virginia.

Professor Yee: And my name is Gordon Yee, and I'm at the University of Colorado.

Professor Harman: And we're really excited to bring chemistry to you in this completely new format. We're not bound by the pages of the traditional textbook. We can show you cool demos. We can take you cool places. We can do cool things.

Professor Yee: And one of the things that we would like to emphasize in this product is to try to create the idea that you can visualize chemistry on the atomic molecular level. It's, after all, the way that we visualize what's going on. So, instead of seeing things as just macroscopic on a big scale, we're going to try to shrink you down to the level of the atom and the molecule and understand what's really going on by seeing it in your mind's eye.

Professor Harman: We also would like to break down the barrier between general chemistry and organic chemistry. Very often, these are treated as separate sciences almost—or seemingly so to the beginning student. What we'd like to do is emphasize that organic molecules are just like inorganic molecules. They're molecules, and they react, and their structure is based on the same fundamental relationships. And we're going to bring chemistry to you in that context.

Professor Yee: Finally, I guess I could say that one reason why you should study chemistry is because it's all around you. Your kitchen is a laboratory, your bathroom is a laboratory, the street outside is a laboratory, and chemicals are all around you: soap and health products and things like that. So to be an informed citizen, to understand how to function in this society (and another thing you're going to have to do is function as a voter, make decisions about nuclear energy or hydroelectric power), you need to know something about what's going on and that's really why you should study general chemistry, at least one of the reasons. So let's get started.