

## My Journey in Science

- What were your science experiences in school starting with elementary school?

Science in elementary school started as a pullout class that met maybe once a week. I remember that because it was a pullout class, it felt special, and so I always looked forward to going to it. We learned a lot about animals. Specifically reptiles. But otherwise, I don't remember what exactly I learned in science in elementary school.

Starting in 7<sup>th</sup> grade, I began to have science every day as its own class. In middle school I was very skeptical of science. In high school, I really hated science. My science teachers were extremely weak. The science department made national headlines because they conspired to help students cheat on a standardized test. Most of the science teachers were fired and replaced. It was not a good situation.

Then I saw a documentary on TV that changed my world. It featured the Shoemaker-Levy comet. I had never realized that astronomy was something I could study until that moment. And from then on I was hooked. And surprise, surprise! I majored in a very rigorous science: Astrophysics.

- Do you like science?

I do like many topics in science but not all. I love astronomy and physics. I tend to like life sciences and geology. I love environmental science. I tend to stay away from chemistry. I don't think a person has to like science as a whole.

- What do you think should be happening in science classrooms today?

Certainly a more unified approach to science might be good. If chemistry and physics were embedded in every level of applied science (such as geology, biology, astronomy, and environmental science), then I think we would graduate stronger scientists. Right now, we silo sciences and the connections between them are tenuous.

- If you have observed someone who has taught a good science lesson or you have taught one that you think is good, be prepared to describe it.

I remember my Planetary Physics professor in college teaching us to do Order of Magnitude thinking. His first assignment for us was to estimate how much lipstick Britney Spears has swallowed in her lifetime. That caught me right away.

- Write a preliminary statement describing your philosophy of science education/instruction.

Science should be integrated. Fun topics like astronomy or earth sciences should be offered as core courses with physics and chemistry embedded within all the curriculum. Science should also be inquiry-based and hands-on. Students should be able to make mistakes and start over in an iterative process.

INQUIRY is questioning, exploring, and experimenting. INQUIRY is NOT memorizing, lecturing, or knowing.