week one: knowing your learners

The Next Generation Science Standards (NGSS) are the guidelines for science instruction in California. Los Angeles Unified School District(LAUSD), the district I anticipate working as a science educator, has adopted the “thee-course” model for high school science education(citation). This means that students take Biology, Chemistry and Physics in that order. I have decided to plan a week-long lesson in atomic theory. This has traditionally been an early unit covered in high school chemistry.

In efforts to differentiate instruction and make class materials available to all students, I have created a website for the class.

Prior academic knowledge

- assessment: Students will take a pre-assessment to determine knowledge of subject matter to be covered in the atomic theory lesson.
- data collection: Student performance on the pre-assessment will inform instruction for the coming week. The goal is to develop a real-time data collection system using web-based technology.

Cultural and linguistic resources and funds of knowledge

- assessment: I would assess cultural and linguistic resources in a two part collaborative assignment. Students will form small groups and discuss food preparation in their family. The second part of the assignment would be a discussion related to the chemistry of food.
- data collection: This will be an opportunity to build a sense of community in the classroom and an opportunity for me to build stronger relationships with my students.

Prior experience and interests and life experience(s) that may require additional academic and/or emotional support

- assessment: Students will complete a survey that will assess prior interest in Chemistry and a student information form.
- data collection: Keeping track of up to 150 students can be challenging. My plan is to utilize a database application that will allow for quick retrieval of student information. This will, hopefully, allow faster and more efficient incorporation of student data in instruction planning.

Developmental considerations

All instructional planning is subject to change and modification. Through careful reflection and observation, the assessments and activities presented here will be in a constant state of development. I am not teaching Chemistry at this point. I am working as a substitute teacher in

LAUSD. I was a social studies teacher for about seven years. I have been out the classroom for about 15 years. I see this transition as a chance to learn from my previous experience and enhance and refresh my skills. I am embarrassed to say I did not implement many of the strategies found in this assignment when I was in the classroom. I truly believe that this level of reflection and investigation would have made me a much more effective teacher.

In completing this assignment, I have conducted research and found several resources for science, and specifically Chemistry, education in LAUSD. I am grateful for the level and depth of insight provided by this assignment.