

# 2009 Teacher Quest Tampa Bay Pilot Program

## Action Plan

**Author:** Chuck Routhier

**Lesson Title:** Databases in the Real World

**Grade Level:** 7 – 8

**Subject Area:** Technology

### Summer Work Experience

I spent my summer working for Custom Manufacturing and Engineering (CME) in St. Petersburg, FL. As the name suggests, CME is an engineering firm with an on-site manufacturing facility. Their primary customer is the U.S. military and they provide such things as mobile power platforms, extremely high-end camera equipment, sensors used for sniper detection, and border protection.

My job was to set-up a customer management database that was not being utilized. I had to learn the software, interview potential users, customize the software appropriately, build a test database with live data, create useful reports, train users, and finally, create procedure manuals and other documentation.

I learned a great deal about managing a project from beginning to end. I had a time limit and an extremely small budget, so I had to carefully manage my time and utilize my resources. I also learned I still have what it takes to work in industry and it produced a great deal of self-confidence in me. I hope to translate this project management skill and confidence from finishing a complex task to my students. I will also be stressing the importance of understanding computers and software in our increasingly technological world.

### Lesson Plan/Unit of Study

#### **Objective(s):**

Identify the components of a database

Create a database

#### **Sunshine State Standard:**

SC.H.3.3.7 - The student knows that computers speed up and extend people's ability to collect, sort and analyze data; prepare research reports; and share data and ideas with others.

**Materials:**

Computers utilizing MYSQL database software

Thirty (30) USB flash drives, 2 GB in size

Computer Projector

**Instructional Procedures:**

1. Teach students about databases.
2. Model how to build a database.
3. Students will create their own databases utilizing something that they are interested in. The database will be stored on their hard drives (or flash drives), along with a copy of MYSQL (which is open source, free database software). Students will also build a portfolio of database activities during subsequent software lessons.
4. Students will present their databases to the class.
5. Discuss with students the various careers related to databases and career pathways.

**Integration of Summer Work Experience/Follow-Up Activities:**

I will request an engineer from CME to be a guest speaker in my classroom. I will establish contacts in the engineering profession with whom I can network.

**Assessment Instrument:**

The students will demonstrate their databases to the class via a computer projector.