

Teacher Quest Tampa Bay Pilot Program

2009 Action Plan

Author: Ron Jones

Lesson Title: What Software Does Industry Use for Design?

Grade Level: 9-12

Subject Area(s): Construction/Technology

Date: 7/15/2009

Summer work experience:

Company: Engraving Systems Support, Inc.

Position: 3-D Product Marketing Assistant

I was responsible for learning several computer aided design software applications for 2D and 3D design and drafting programs. I developed "how to" guides for creating models of buildings and structures, as well as printing with lasers. I also developed relevant lesson plans using lasers for teachers. Lasers have many uses that most schools and students do not know about. Many schools do not currently implement lasers because they are not aware of their many capabilities. I had to remember how to use several computer aided design software applications for 2D and 3D design and drafting programs as well as learn a few new ones. Among the programs used were: AutoCAD, RhinoCAD, CorelDraw, Photograv. As well as refreshing my memory of design programs, I also learned how to output (print) to lasers from these programs.

I was surprised by the number of different computer programs being used in industry. I want my students to understand that industry uses a wide range of design software. I hope they understand that every opportunity they take to learn a new program makes them more valuable to future employers.

Teacher Quest was an awesome experience because it reopened my eyes to the technology world. It helps to see what is changing in order to meet the needs of my students. Simply teaching what was taught before isn't acceptable, and our students deserve better. If possible, I will apply again next year.

Lesson Plan/Unit of Study:

Objective(s): Since I was surprised by the number of different computer programs I had to use, I want my students to understand that industry uses a wide range of design software. I hope they understand that every opportunity they take to learn a new program makes them more valuable to future employers.

Sunshine State Standards:

Language Arts:

- LA.A.2.4.4
- LA.A.2.4.6
- LA.A.2.4.8
- LA.B.2.4.1
- LA.B.2.4.2
- LA.B.2.4.4
- LA.C.2.4.1
- LA.C.3.4.3
- LA.D.2.4.3
- LA.D.2.4.4

Math:

- MA.E.1.4.1
- MA.E.1.4.3

Science:

- SC.H.3.4.1
- SC.H.3.4.2
- SC.H.3.4.5
- SC.H.3.4.6

The Arts:

- MU.B.2.4.1
- TH.A.2.4.1
- TH.A.3.4.1
- VA.A.1.4.1
- VA.A.1.4.2

Materials:

An LCD projector with PowerPoint will be used for presentations. Students will need to use the Internet for research. Interviews may be conducted via, email, over the phone, or in person.

Instructional Procedures:

1. Students will research a company they would like to work for in the future.
2. They will find out which design programs the company uses to develop products or structures.
3. They will describe each program as well as list some other companies which also use it.
4. They will present their findings using PowerPoint slides on an LCD projector.

Integration of summer work experience/follow-up activities:

I will definitely keep in contact with E.S.S. Their close proximity makes them ideal guest speakers or a great place to visit on a field trip. I may continue to help them develop curriculum for their lasers. I believe there will be opportunities for us to work together when I start teaching Drafting 1 in the fall of 2010.

I can't say enough how great this summer experience was. I hope to incorporate as much as I can remember into next year's construction classes. Our new Construction Technology Career Academy will benefit greatly from this program.

Assessment Instrument:

Students will be assessed on their presentation. They will be graded based on the quality of their slides (40%), the relevance of their content (40%), and the cohesiveness of their speech (20%). Inappropriate behavior during others' speeches will cause a loss of points.