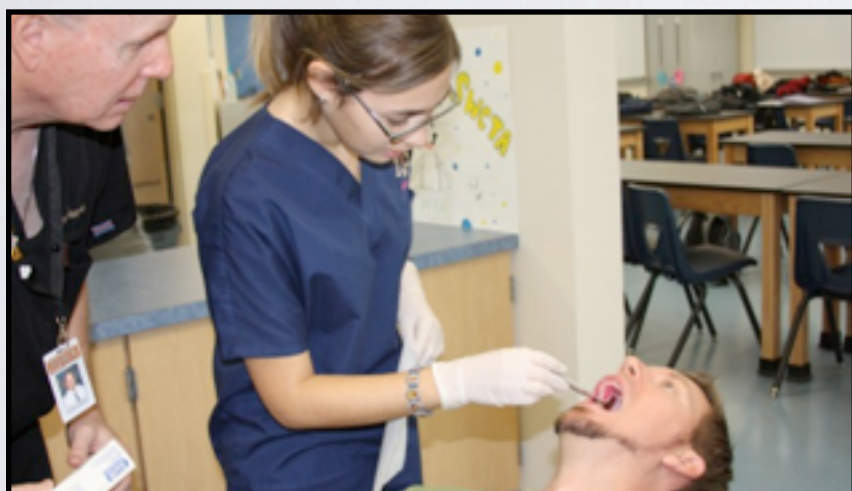


SOUTHWEST CAREER AND TECHNICAL ACADEMY

Felicia Nemcek, Craig Statucki, Angelo Pappano



CTE PATHWAYS

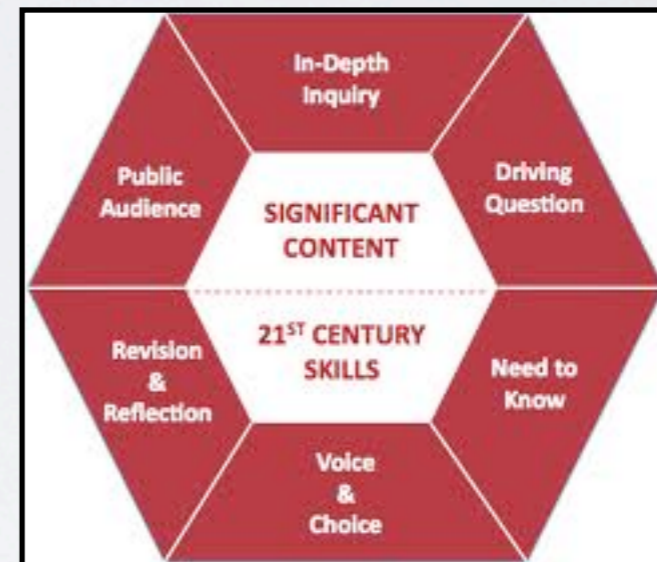


PROFESSIONAL ACADEMY



DESIGN ACADEMY

QUALITY ONGOING PROFESSIONAL DEVELOPMENT



PROJECT-BASED LEARNING



STUDENT-CENTERED LEARNING



PARTNERSHIP OFFICE

- Coordinates activities between the program areas and their respective industry partners
- Advisory Boards
- Provide campus tours to members of industry, educational leaders, and other dignitaries

COLLABORATION AND COMMUNICATION



AVAILABLE TECHNOLOGY

- Computer Labs
- Laptop Carts
- iPods and iPads
- Digital Cameras
- Video Cameras
- SMART Boards
- Google Apps for Education
- Edmodo
- Adobe Products
- Autodesk Products
- Video Editing Software
- CADD

EMBEDDING TECHNOLOGY



Google
Apps for Education



edmodo



IPAD USAGE

- 88% of the students used iPads outside of school for educational purposes
- Students averaged 14 hours per week using the iPad for educational purposes
- Most Popular Uses: Internet, Calendar, Notes

COLLABORATION AND COMMUNICATION

Digital Game II

Today April 2012

Print Week Month Agenda

Sun Mon Tue Wed Thu Fri Sat

Apr 1 2 3 4 5 6 7

Spring Break Spring Break Spring Break Spring Break Spring Break

8 9 10 11 12 13 14

Spring PBL S Java - Chapt Spring PBL P

20 21

27 28

Java Project

4 5

Spring PBL Showcase Prep

When Monday, Apr 9, 2012

Description Objective:
SWBAT demonstrate knowledge of coding concepts.

Activities:
1. Read <http://goo.gl/jyVIN>
2. Review of Spring PBL
3. PBL Presentation and Showcase Prep

Homework:
1. Dependent on group tasks.

[more details](#) [copy to my calendar](#)

Events shown in time zone: Pacific Time

Google Calendar

Sharing settings

Paste this link in email or IM:
<https://docs.google.com/a/swcta.net/document/d/1CFBfgTJollSgwv5g-3efxYyXlZCx/>
[Reset link](#)

Permissions:

People at Southwest Career and Technical Academy who have the link can view [Change](#)

Marcos Ontiveros (you) Is owner

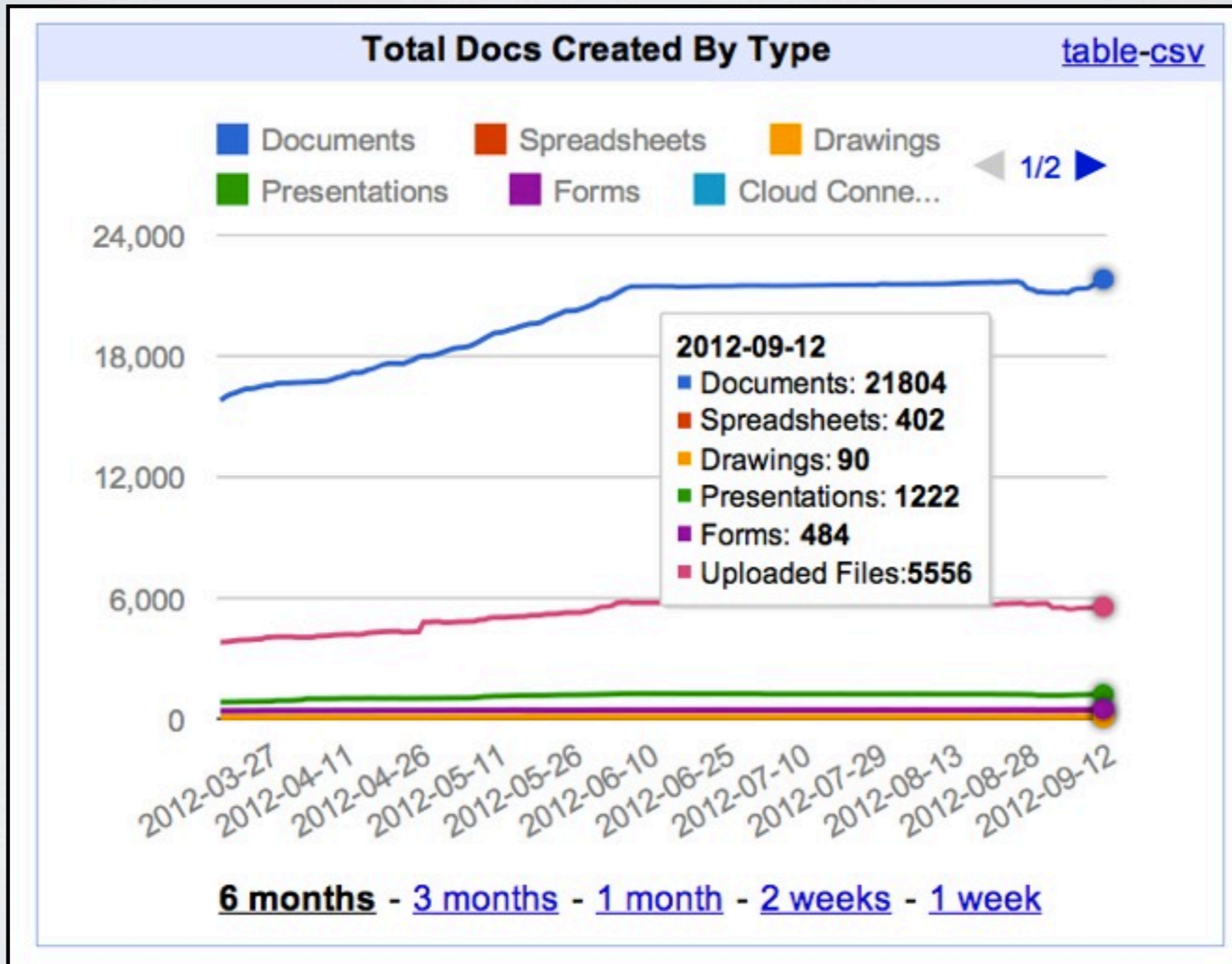
Add people: [Choose from contacts](#)

"Archie John Ilano" <1155016@swcta.net>, ra [Can edit](#)

"Austin John Ramos" <1144508@swcta.net>
"Elvin Ramos" <364194@swcta.net>
"Jacob Race" <346186@swcta.net>
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"Randi Tagorda" <515366@swcta.net>
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Item itself into the email
All notifications (recommended) will be included on this email
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GOOGLE USAGE

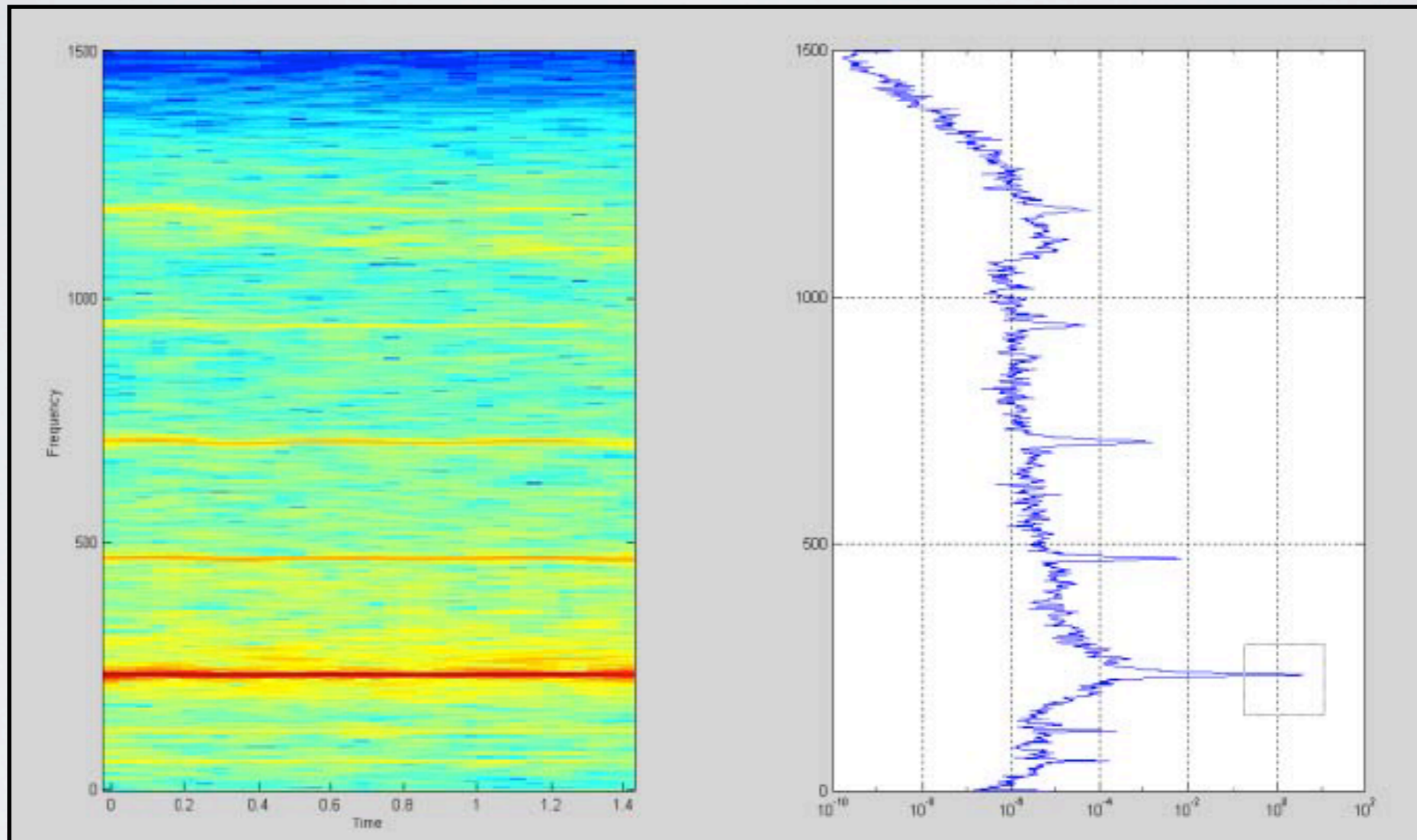


ENTERTAINMENT ENGINEERING

HISTORY OF THE GUITAR PROJECT



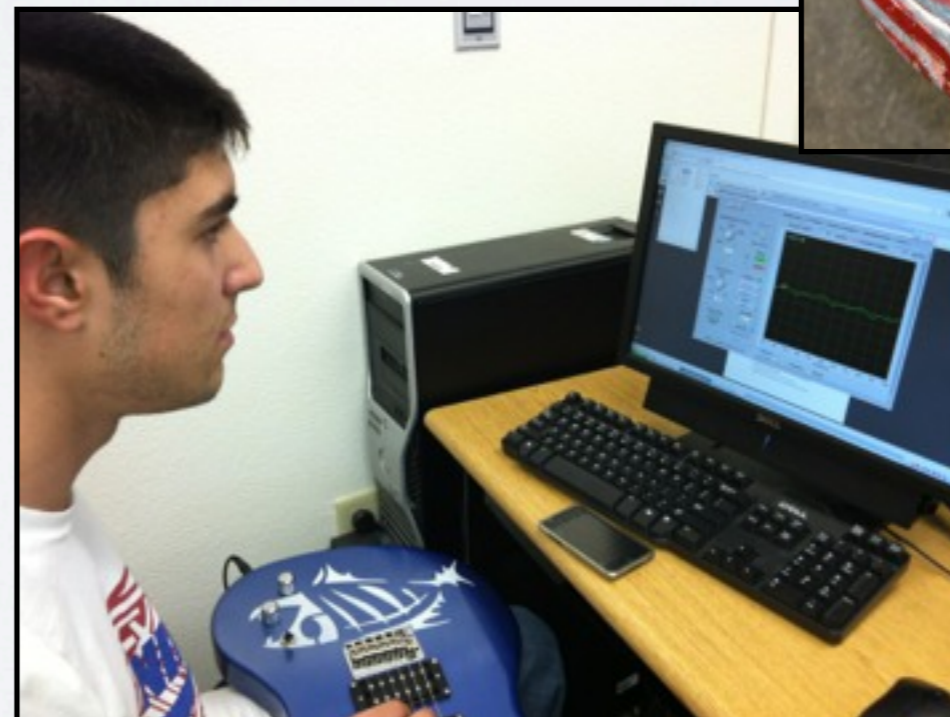
FOCUS ON STEM: SCIENCE



ANALYZING FREQUENCIES
OF A GUITAR STRING

SCIENCE COMPONENTS:

- The Decibel Scale
- Introductory Wave Behavior
- Determining String Tension Using Measured Frequencies
- Standing Waves on a Guitar String
- Density and Buoyancy in the Swirl Dipping Process



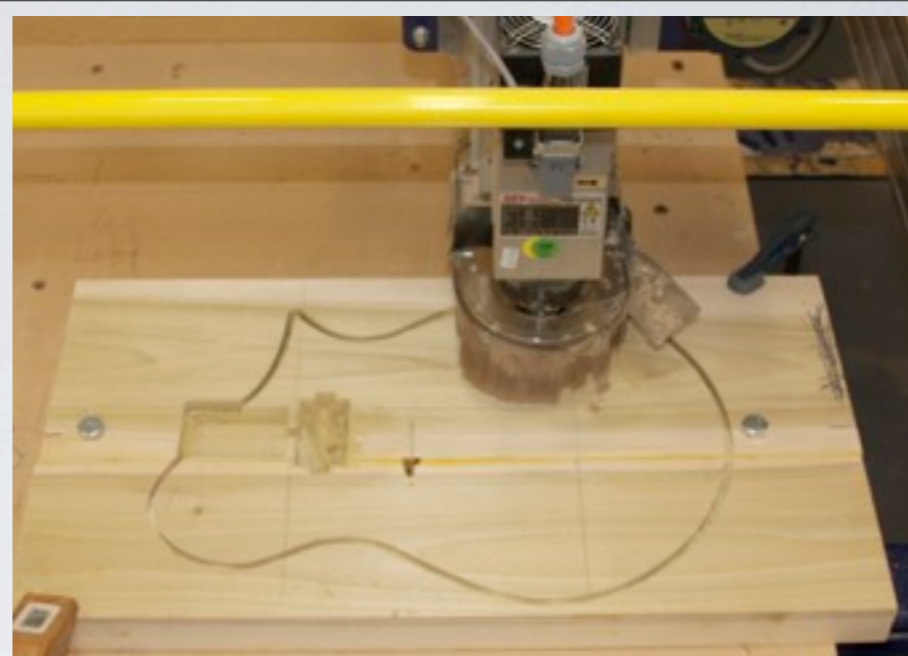
FOCUS ON STEM: TECHNOLOGY



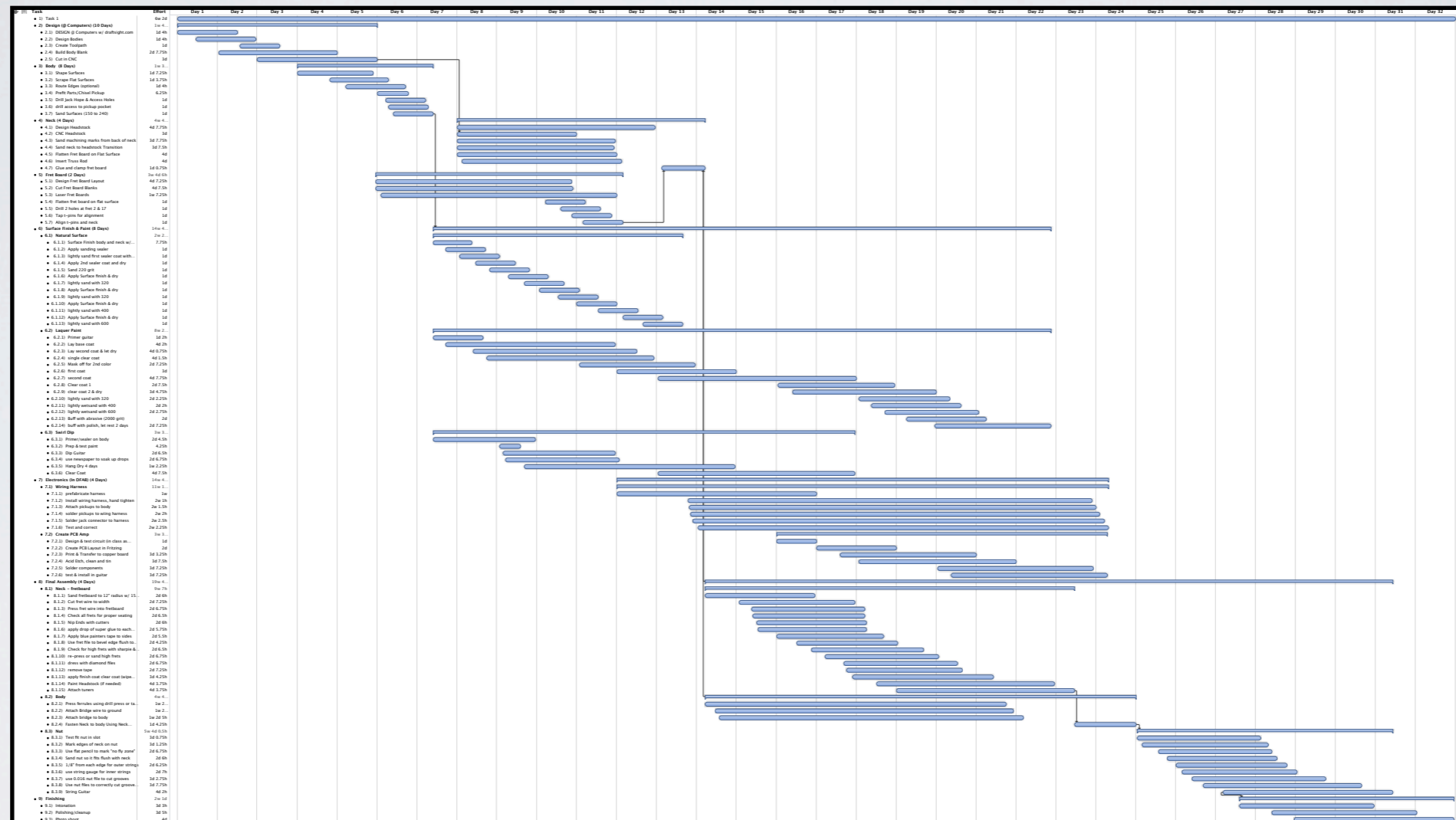
16 GUITAR NECKS BEING CUT ON
A SHOPBOT CNC MILL

TECHNOLOGY COMPONENTS:

- 2D/3D CAD Drafting to Create the Guitar Shape
- Power Tool Safety and Operations
- Setup and Operation of a CNC Machine
- Cutting Fret Boards Using a Laser Engraver
- Paints, Finishes and Paint Booth Operations



FOCUS ON STEM: ENGINEERING



THE STEM GUITAR PROJECT GANTT CHART

ENGINEERING COMPONENTS:

- The Engineering Design Process
- Gantt Charts and Project Timelines
- Tracking Cost and Efficiency
- Innovating Creativity into Existing Designs



FOCUS ON STEM: MATHEMATICS

$$p_c = (L - p_f) / 17.817 + p_f$$

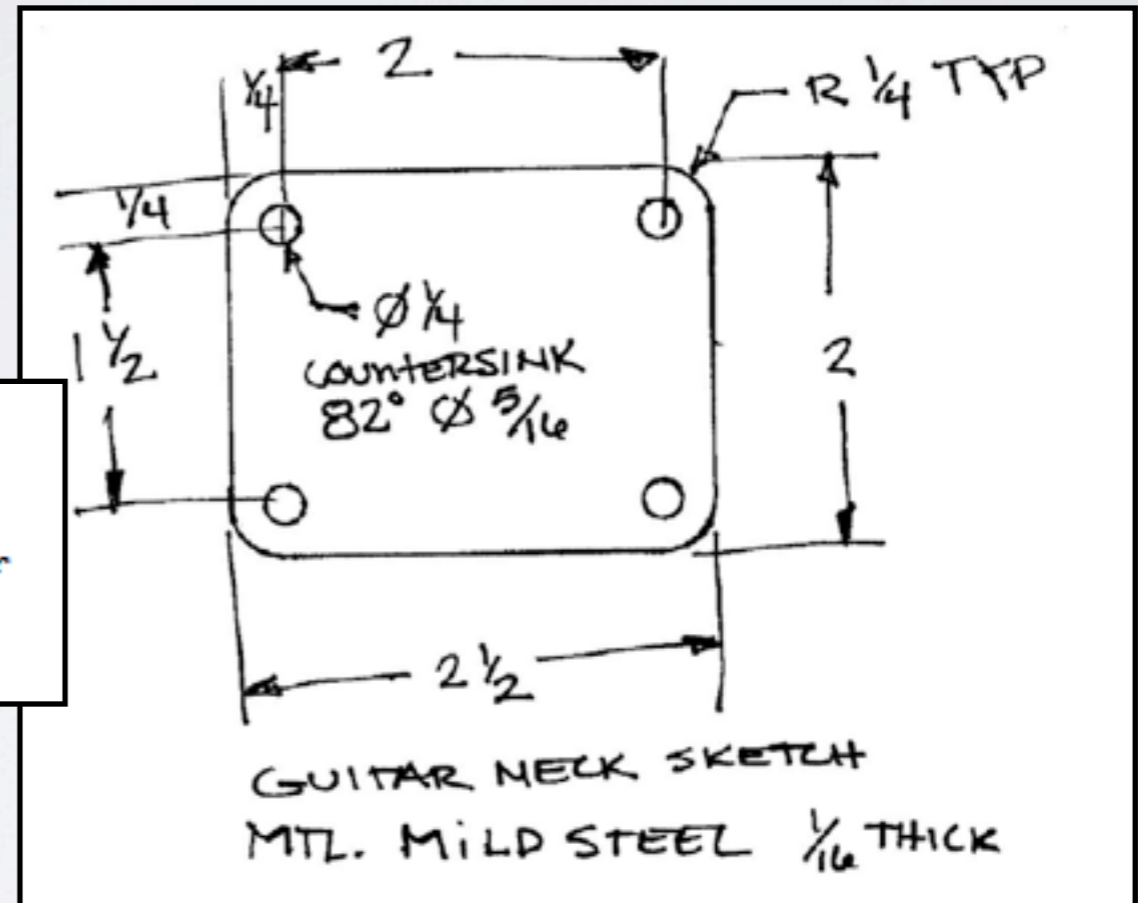
$$p_c = ((24'' - 0'') / 17.817) + 0$$

$$= (24'' / 17.817)$$

$$= 1.347$$

$$p_c = \frac{(L - p_f)}{17.817} + p_f$$

$$L = \frac{T_k T_o C}{T_i}$$



ANALYZING FREQUENCIES
OF A GUITAR STRING

SCALABILITY

- Project Length
 - 2 Months to 1 School Year
- Grade Levels
 - After-school Club through College Elective



ACHIEVEMENT DATA

11th Grade AYP Proficiency Exams	2011	2012	CCSD Goal
Science	90.83%	91.46%	N/A
Math	93.51%	93.6%	81.51%
ELA	95.78%	96.04%	76.92%

THANK YOU!

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Angelo Pappano - apappano@interact.ccsd.net

www.swcta.net