



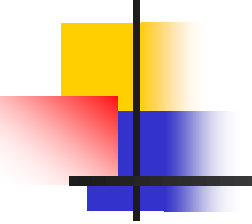
Carol and Matt

Rocky Mountain High School

- Fall Semester
 - Biology for Life
 - Anatomy and Physiology

- Spring Semester
 - AP Biology
 - Anatomy and Physiology

Anatomy and Physiology

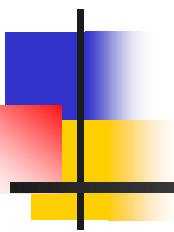
- 
- Intro of Matt
 - Personal History
 - Tiny glimpse of Research
 - SLOVENIA (why, what, collaboration)
 - Size and Scale (neuron migration) activity
 - Making of tissue sections (2-4 students cut at CSU)
 - Fluorescent Microscopy (Jeff Bright)
 - Hall of Fame molecules in physiology
 - Stress/Anxiety Lesson(s)
 - Feedback loops and homeostasis
 - Use of Animal Models/Research
 - Interactive case study
 - Follow up with another example (Blood Sugar)

Anatomy and Physiology (continued)



- LabQuest activities (enhance and extend)
 - Surface Temperature
 - Grip Strength
 - EKG
 - CO₂/O₂ (develop for respiratory system)
- Keep LabQuest research at end of semester

AP Biology

- Central dogma
 - CSI type case study followed by wet lab
 - Amgen lab support
 - Algae Biofuels (Theme: conservation of energy)
 - Grow algae
 - Isolate/combust fuel component
 - Bioinformatics
 - Given DNA sequence
 - Students utilize NCBI to determine gene
 - What is the protein product and associated disorders
- 



AP Bio continued...

- Cell cycle regulation
 - Standard intro
 - Youtube movie of cell cycle regulation
 - How does contact inhibition signal regulators?
 - Develop classroom simulation with students playing the roles of cells/regulators and demonstrating cell-cell communication



Summary

- Strong presence in Anatomy and Physiology
- Several new concepts with expansion of some existing units (what does the data tell us)
- Utilize some existing GK12 units
- Rough ideas for spring semester AP Bio
- Open to hear about the interdisciplinary classroom pilot (would change fellow utilization)
- Develop additional ideas for Bio for Life