AP BIOLOGY WORKSHOP DESCRIPTION

Change is here! The College Board initiated a new AP Biology curriculum framework along with a new exam in May 2013. The main focus of this workshop will be how to implement the new course. Activities will address the new curriculum framework. The four big ideas and the learning objectives and science practices that the exam questions are based on will be stressed. With the shift to an inquiry approach to the laboratory component, participants will learn how to set up, troubleshoot, and perform most of the new AP Biology Labs as presented in the new AP Biology Laboratory Manual for Students. Ideas for incorporating inquiry and mathematics into the existing labs and other lab activities will also be discussed. Other workshop highlights include how to organize your course and prepare your new syllabus for the audit. Resources for preparing class activities and lectures will also be presented. Finally, participants will review the grading of the 2016 AP Biology Examination, participate in a mini "mock reading" of sample AP Biology Free Response questions, and share successful review strategies that can be used with your students. Special attention will be given to the new exam format.

Western Kentucky University AP Summer Institute – AP Biology Weekly Agenda

Monday 6/27 **Big Idea One - Evolution**	Tuesday 6/28 **B.I. 2– Energy Transfer**	Wednesday 6/29 **B.I. 3 – Info Transfer**	Thursday 6/30 **B.I. 4 – Ecological Interactions**	Friday 7/1 **Presentations Wrap-Up**
*Welcome & Introductions *AP Biology Course Overview – Change! *What's the Big Idea? **Big Idea 1 Overview** *Lab - inquiry approach Set up Transpiration Lab (11) *Natural Selection in Brine Shrimp – Day 1 set up	*Data Collection – Transpiration Lab *Brine Shrimp data collection – design an experiment *AP Biology Curriculum Framework ***Big Idea 2 Overview** *Diffusion and Osmosis Lab (4) *Surface Area - do and debrief *Osmosis and Water Potential Discussion: inquiry approach	*Data Collection – Transpiration Lab ***Big Idea 3 Overview** *Transformation Lab (8) *Mitosis & Meiosis Lab (7)	*Transpiration Lab (11) * Data Collection *Read Transformation plates & calculate TE ***Big Idea 4 Overview** *Animal Behavior Lab (12) with chi squared analysis	*Transpiration Lab (11) *Final Data Collection and Discussion ***Big Ideas 1-4 Summary** Syllabus/Audit Work Time
Break	Break	Break	Break	Break
*Set up pGLO lab Hardy Weinberg – a variety of approaches: *rock pocket mouse *population genetics	pGLO Lab - Transformation	DNA Gel Electrophoresis Lab (9) 2015 Exam Debrief: The SHORT FRQs	Photosynthesis – Leaf disk Lab (5) Case Study Presentations -Bioethics	Case Study Presentations Share an activity Evaluations and Goodbyes
Lunch	Lunch	Lunch	Lunch	Lunch
COMPUTER LAB Hardy-Weinberg Lab (2)	Enzyme Labs (13) Options for Enzymes: *Using Probeware - Pasco *Guiacol Assay *Classic Catalase-H_2O_2	2014 Exam debrief: The GRID-Ins AP Math!	Mini Poster Presentations Syllabus/Audit Work Time	
Break	Break	Break	Break	Break
COMPUTER LAB BLAST Lab (3)	Introduction to Mini Posters Mini Poster Construction and viewing Cell Respiration Lab (6)	Gel Analysis Discussion: inquiry approach Cell Communication Science Take Out Syllabus/Audit Work Time	Syllabus/Audit Work Time AP Teacher Community Instructional Planning Reports Best Practices	
Read Labs 4, 5, & 6	Read Labs 7, 8 & 9	Read Labs 10, 11, 12 & 13	Prepare Sharing Activity	

*Agenda subject to change. Flexibility is the key☺

OVER----→

Assignments:
You have two assignment to be thinking about for Thursday/Friday

1. Case Study – You and a partner will select a case study from the website http://sciencecases.lib.buffalo.edu/cs/ . First come first served on the case selection. Fill out the Google spreadsheet when you sign up. Download and complete the case study and report out on its use in your class this coming school year. Email mark (mstephansky@gmail.com) and I will download and send the answer key to you.
2. Review and Reflection of the labs. Your lab group will construct a mini-poster from an assigned lab competed this week. Your mini-poster will focus on the lab report rubric http://www.kabt.org/2013/09/16/miniposters-authentic-peer-review/ and your commentary will focus on answering these questions:
    a. What did I learn about the lab(s)?
    b. What are/were the key ideas?
    c. What are some ways I can incorporate this into my classroom along with inquiry? If there are no ways to incorporate it, why not?
    d. What did I understand well?
    e. What do I need from others to help me so I understand it better?
    f. How does it relate to other areas of the curriculum?
    g. What suggestions would you make to a colleague who has to do these activities in a non-lab based classroom?