

2017 AP Biology APSI Agenda

This is our tentative schedule for the week. We can always change it or move things around to best suit your needs. We will NOT be doing all the labs in the lab manual, but we will review and critique as many as possible

DAY 1: BIG IDEA 1 EVOLUTION

AM Introductions and Overview (classroom norms & partners)
DROPOBOX
Nature of Science Activity 1
Updates on AP Curriculum, Labs, and/or Exam (Visit to AP Central)
Curriculum Framework Activities:
 Big Ideas & Enduring Understandings (bulletin board idea)
 Learning Objectives

Data Nuggets Review Assignment

LABS: (laptop needed for 2 & 3) (* = discuss and/or do)

Investigation 1: Artificial Selection (discussion only)
Investigation 2: HWE Mathematical Modeling*
Investigation 3: BLAST*

Power Words

2016 Exam debrief part 1: FRQ #1

PM Set up or Prep for:

Natural Selection in Brine Shrimp lab
Investigation 11: Transpiration lab (whole plant version)
Investigation 4: Diffusion and Osmosis
Investigation 8 and/or 9: Biotechnology*
Alternative Labs for Big Idea 1

Using Models and Representations:

POGIL
Case Study
Using the Scientific Process to Study Human Evolution (HHMI)
Sea Shell Biodiversity & Phylogeny (HHMI)
Biology of Human Skin Color activities (HHMI)

Resources for teaching evolution:

Rock Pocket Mice or Stickleback Evolution virtual lab (HHMI)
Fishy Frequencies
Evolution by Natural Selection (Serendip)
What did T. rex Taste Like? (UCMP)
Peppered Moths Simulation - <http://peppermoths.weebly.com>

Classroom Activities to Share - Quantitative Skill Modules

Reflections

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DAY 2: BIG IDEA 2 CELLULAR PROCESS: ENERGY & COMMUNICATION

AM Nature of Science Activity 2
Diversity in the Classroom: Equity & Access
Searching for the Science Practices
Introduction to Evidence-based Claims

LABS: (* = discuss and/or do)

Investigation 4: Diffusion and Osmosis
Investigation 4 Extension: Water Potential set up (w/inquiry)
Dog Evolution (set up) (**alternative to Investigation 9**)

Using Probes to Uncover Student Misunderstandings

2016 Exam debrief part 2: FRQ #2

PM LABS:

Natural Selection in Brine Shrimp lab – Day 2
Investigation 11: Transpiration – Day 2
Investigation 5: Photosynthesis – mini posters with I² strategy
Investigation 6: Cell Respiration (**alternative**)

Using Models and Representations:

POGIL
Case Study
Coral Bleaching Interactive video (HHMI)
Cell Respiration Model

Alternative Labs for Big Idea 2

Classroom Activities to Share

Reflections

DAY 3: BIG IDEA 3 GENETICS AND INFORMATION TRANSFER

AM Unpacking Illustrative Examples and Exclusion Statements

Classroom Activities to Share

2017 Exam debrief part 3: FRQ #3, #4, and #5

LABS: (* = discuss and/or do)

INVESTIGATION 11: Transpiration – Day 3
INVESTIGATION 8: Biotechnology - Bacterial Transformation*
INVESTIGATION 9: Biotechnology – Restriction Enzyme Analysis of DNA* (**See below.**)
Incorporating Inquiry into Big Idea 3 Labs 8 & 9

PM Using Models and Representations:

Case study
POGIL
James Bond: Cellular Spy
Modeling an Operon
Cell Communication Activities

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LABS: (* = discuss and/or do)

Natural Selection in Brine Shrimp lab – Day 3

Investigation 4: Water Potential results (Groups will share results)

Dog Evolution lab (**alternative to Investigation 9**)

Alternative Labs for Big Idea 3

2017 Exam debrief part 4: FRQ #6, #7, and #8

2017 AP Exam Results - (Importance of the Science Practices)

AP Instructional Planning Report (APIPR)

Teaching Students How to Answer Free Response Questions

Tips for Grading Free Response Questions

Scientific Argumentation in AP Biology

Reflections

DAY 4: BIG IDEA 4 INTERACTIONS

AM Participant Presentations - Data Nuggets

AP Insight

AP Audit and Curriculum planning time

LABS: (* = discuss and/or do)

INVESTIGATION 10: Energy Dynamics*

INVESTIGATION 11: Transpiration – Day 4 (final results)

INVESTIGATION 12: Animal Behavior *

INVESTIGATION 13: Enzyme Activity (Explanation Tool)

PM LABS:

INVESTIGATION 8: Bacterial Transformation (results)*

Alternative Labs for Big Idea 4

Using Models and Representations:

POGIL

Food Chain and Food Web Activity (HHMI)

HHMI Short Film – Some Animals are More Equal than Others

Bean Biodiversity Activity*

Wrap Up Unfinished Business from Earlier in the Week

Review & Summary

Evaluations - CB consultant number: 0204

Door Prizes

Final Reflections – THANK YOU!!!

HAVE A SUPER SUMMER VACATION!!! BE HAPPY!! ☺

Contact information: apbiobabe@gmail.com

CB consultant number: 0204