

# 2019 AP Biology PAPI Agenda

This is a tentative schedule. We can change it or move things around to best suit **your** needs. We will **NOT** do all 13 labs in the lab manual, but we will do, review, and critique as many as possible.

## DAY 1: BIG IDEA 1 EVOLUTION

**AM** Introductions and Overview (classroom norms & partners)

### **DROPBOX**

#### **Data Nuggets Review Assignment**

Nature of Science Activity 1

Updates on AP Curriculum, Labs, and/or Exam (Visit to AP Central)

Big Ideas & Enduring Understandings

Learning Objectives

### **BIG IDEA 1 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 for AP Biology**

#### **2019 Exam debrief part 1: FRQ #1**

### **PM** **Begin or Prep Labs:**

Natural Selection in Brine Shrimp lab (Day 1)

INVESTIGATION 11: Transpiration lab (whole plant version) (Day 1)

INVESTIGATION 4: Diffusion and Osmosis

INVESTIGATION 6: Cell Respiration (**alternative**)

INVESTIGATION 8 and/or 9: Biotechnology\*

Alternative Labs for Big Idea 1

Using Models and Representations

### **Resources for teaching evolution**

Classroom Activities to Share - Quantitative Skills Modules

Reflections

## DAY 2: BIG IDEA 2 CELLULAR PROCESS: ENERGY TRANSFER & CELLULAR FUNCTIONS

**AM** Nature of Science Activity 2

Searching for the Science Practices

Introduction to Evidence-based Claims (CER)

### **LABS: BIG IDEA 2 LABS: (\* = discuss and/or do)**

INVESTIGATION 4: Diffusion and Osmosis

INVESTIGATION 4 Extension: Water Potential set up (w/inquiry)

INVESTIGATION 5: Photosynthesis – I<sup>2</sup> strategy

### **Using Probes to Uncover Student Misunderstandings**

#### **2019 Exam debrief part 2: FRQ #2**

### **PM** **LABS:**

Natural Selection in Brine Shrimp lab – Day 2

INVESTIGATION 11: Transpiration – Day 2

INVESTIGATION 6: Cell Respiration (**alternative**)

# 2019 AP Biology PAPI Agenda

INVESTIGATION 8 and/or 9: Biotechnology\* (Day 2)

Alternative Labs for Big Idea 2

Using Models and Representations

**Resources for teaching energy transfer and cellular functions**

Classroom Activities to Share

Reflections

## DAY 3: BIG IDEA 3 GENETICS AND INFORMATION TRANSFER

**AM** Nature of Science Activity 3

Unpacking Illustrative Examples and Exclusion Statements

Diversity in the Classroom: Equity & Access

Classroom Activities to Share

**2019 Exam debrief part 3: FRQ #3, #4, and #5**

**LABS: (\* = discuss and/or do)**

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

**Resources for teaching cell communication**

**LABS: (\* = discuss and/or do)**

INVESTIGATION 11: Transpiration – Day 3

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

**2019 Exam debrief part 4: FRQ #6, #7, and #8**

**2019 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 (ADI) – Schleigh and Sampson**

Reflections

## DAY 4: BIG IDEA 4 INTERACTIONS

**AM** 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)

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**PM LABS:**  
INVESTIGATION 8: Bacterial Transformation (results)\*

Alternative Labs for Big Idea 4  
Using Models and Representations

**Wrap Up Unfinished Business from Earlier in the Week**

**Review & Summary**

**Evaluations**

**Door Prizes**

**THANK YOU!!!**

**Cheryl Ann Hollinger**

**Contact information: [apbiobabe@gmail.com](mailto:apbiobabe@gmail.com)**

**CB consultant number: 0204**

