**AP Biology Tentative Schedule**

**1st Semester**

***August***

**Week 1**

* School Paperwork, Course Expectations, Lab Report Format
* Emergent Properties & Reductionism Activity, Cell City Video Project (Test) – Due Wednesday, September 18
* Data Set quiz 1, Life’s Beginnings – According to Science, Synthesis Question 1
* Data Set quiz 2, Basic Cell Structure, Synthesis Question 2
* Data Set quiz 3, Biochemistry: Chemistry Basics, Synthesis Question 3

**Week 2** *Demo*

* Data Set quiz 4, Biochemistry: Water Part 1, Synthesis Question 4
* Data Set quiz 5, Biochemistry: Water Part 2, Ph/Poh activity, Quiz
* Math quiz 1, Biochemistry: Carbon, Synthesis Question 5
* Data Set quiz 6, Biochemistry: Macromolecules Pt.1, Carbohydrate/Lipid,Testing Demo, Synthesis Question 6
* Data Set quiz 7, Biochemistry: Macromolecules Pt.2, Protein Test Demo, Synthesis Question 7

***September***

**Week 1** *Demo*

* Math quiz 2, Biochemistry: Macromolecules PT.3, DNA Extraction Demo
* Data Set quiz 8, Cell Membrane & Transport Pt.1, Synthesis Question 8
* Free Response Question Practice, Data Set quiz 9, Cell Membrane & Transport Pt. 2

**Week 2** *Lab 3 & 4*

* Math quiz 3, Cell Organelles Pt.1, Lab Investigation 4 Paperwork
* Math quiz 4, Cell Organelles Pt.2, Synthesis Question 9
* Lab Investigation 4 – Parts 1A & 1B
* Lab Investigation 4 – Part 2, 3A, & 3B
* Develop Lab Procedure, Graphs & Data Tables for Lab 4 & Part 3C

**Week 3** *Lab 4*

* Test 1 –Cells
* Lab Investigation 4 part 3C
* Cell City Video Project Presentation
* Test 1: Cells Debrief
* Lab Investigation 4, Student Presentations and Justifications

**Week 4**  *Lab 13*

* Data Set quiz 1, Lining Metabolism Pt. 1, Synthesis Question 1, Lab Investigation 13 Paperwork
* Math Question 1, Living Metabolism Pt. 2, Enzyme Demo
* Lab Investigation 13, Temperature & Calulating Q10
* Lab Investigation 13, pH & Concentration
* Lab Investigation 13, Salinity - Lab Write Up Due Next Friday, October 4

***October***

**Week 1** *Lab 5*

* Math quiz 2, Photosynthesis Pt.1, Synthesis Question 2, Lab Investigations 5 Paperwork
* Data Set Question 2, Photosynthesis Part 2, Synthesis Question 3
* Math Question 3, Photosynthesis Part 3
* Data Set Question 3, Photosynthesis Pt. 4, Synthesis Question 4.
* Lab Investigation 5, Light, Dark, Colors

**Week 2**  *Lab 5 & 6*

* Lab Investigation 5 Ph
* Lab Investigation 5, Temperature & Q10, Lab Write Up Due This Monday, October 14
* Free Response Question Writing
* Math Question 4, Cell Respiration Pt. 1, Lab Investigation 6 Paperwork
* Data Set Question 4, Cell Respiration Pt. 2, Synthesis Question 5

**Week 3** *Lab 6*

* Math Question 5, Cell Respiration Pt. 3, Synthesis Question 6
* Lab Investigation 6, Temperature & Using Crickets & Q10
* Lab 6, Temperature & Using Germinating Peas
* Lab Write Up Due Monday, October 21
* Test 2: Cellular Energetics
* End Of 1st Grading Period

**Week 4** *Lab 7A*

* Data Set Question 1, Cell Cycle Pt. 1, Synthesis Question 1
* Test 2 Debrief
* Math quiz 1, Cell Cycle Pt.2, Synthesis Question 2, Lab Investigation 7A Paperwork
* Data Set Question 2, Cell Cycle Pt. 3, Synthesis Question 3
* Lab Investigation 7A – Mitosis
* Math Question 2, Cell Signaling Pt. 1

**Week 5**

* Free Response Question Writing
* Data Set Question 3, Cell Signaling Part 2, Synthesis Question 4
* Math Question, Cell Signaling Part 3

***November***

**Week 1**

* Test 3 – Cell Cycle & Cell Signaling
* Data Set Question 1, Nervous System Pt. 1
* Synthesis Question 1

**Week 2** *Lab 12*

* Test 3 Debrief
* Data Set Question 2, Nervous System Part 2, Synthesis Question 2
* Data Set Question 3, Nervous System Part 3, Synthesis Question 3
* Math Question 1, Nervous System Pt. 4, Synthesis Question 4
* Math Question 2, Nervous System PT. 5, Synthesis Question 5, Lab Investigation 12 Paperwork

**Week 3** *Lab 12*

* Free Response Question Writing
* Lab Investigation 12
* Data Set Question 4, Immune System Pt. 1, Synthesis Question 6
* Math Question 3, Immune System Pt. 2, Synthesis Question 7

**Week 4**

* Math Question 4, Immune System Pt. 3
* Test 4 – Nervous System Possible. If not then after Thanksgiving.
* Thanksgiving

***December***

**Week 1** *Lab 12*

* Test 4 – Nervous & Immune System ( If not take prior to Thanksgiving)
* Test 4 Debrief
* Lab Investigation 12 Presentations
* Endocrine Systems, Hormone Project Assignment
* Research in Computer Lab
* Math Quiz 1, Organism Development Pt., 1 Synthesis Question 1

**Week 2**

* Data Set Question 1 & 2, Organism Development Pt. 2, 3, 4, & 5
* Math Questions 2 & 3
* Free Response Question Writing
* Test Unit 5
* Project Presentations

**Week 3**

* Exams
* ***Christmas Break !!!!!!!!!!!!!!!!!!!!!!***

**AP Biology Tentative Schedule**

**2nd Semester**

***January***

**Week 1**

* Data Set 1, DNA History & Structure, Synthesis Question 1
* DNA Structure & Replication

**Week 2**

* Protein Synthesis Pt. 1
* Data Set 2, Protein Synthesis Pt. 2, Protein Synthesis Homework Activity
* Math Quiz 1, Protein Synthesis Pt. 3, Synthesis Question 2
* Data Set 3, DNA Control Mechanisms
* Math Quiz 2, Biotechnology Pt. 1

**Week 3** *Lab 8 & 9*

* Data Set 4, Biotechnology Pt. 2, Synthesis Question 3
* Math Quiz 3, Biotechnology Pt. 3, Synthesis Question 4
* Biotechnology Pt. 4, Plasmid Mapping Exercise, Lab Investigation 8 Paperwork
* Lab Investigation 8
* Debrief Lab Investigation 8
* Lab Investigation 9 Paperwork

**Week 4** *Lab 9*

* Lab Investigation 9
* Debrief Lab Investigation 9
* Math Quiz 4, Genes & Development, Synthesis Question 5
* Free Response Question Writing

**Week 5** *Lab 7*

* Data Set 5, Meiosis Pt. 1, Synthesis Question 6
* Math Quiz 5, Meiosis Pt. 2, Lab Investigation 7 Paperwork
* Lab Investigation 7
* Mendelian Genetics Pt. 1, Probability Problems

***February***

**Week 1**

* Math Quiz 6, Mendelian Genetics Pt.2
* Data Set 6, Mendelian Genetics Pt. 3, Synthesis Question 7
* Math Quiz 7, Mendelian Genetics Pt. 4, Synthesis Question 8
* Unit 6 Test

**Week 2** *Lab 11*

* Unit 6 Test Debrief
* Ecology Basics, Biome Project Assigned (Test Grade)
* Aquatic Biomes, Lab 11 Paperwork
* Data Set 1, Transition to Land,
* Math Quiz 1, Behavioral Ecology Pt. 1, Synthesis Question 2
* Debrief Unit 6 Test

**Week 3***Lab 11*

* Set up Whole Plant Transpiration Lab Investigation 11
* Math Quiz 2, Behavioral Ecology Pt. 2, Synthesis Question 3
* Weigh Plants from Lab 11 Each Day of Class
* Cognitive Treasure Hunt Activity/Quiz
* Data Set 2, Behavioral Ecology Pt.3, Synthesis Question 4

**Week 4** *Lab 11*

* Finish and Debrief Lab Investigation 11
* Math Quiz 3, Population Ecology Pt. 1, Synthesis Question 5
* Population Ecology Pt. 2
* Population Growth Newspaper Activity
* Population Ecology Pt. 3, Age Pyramid Activity

***March***

**Week 1**

* Data Set 3, Community Ecology Pt. 1, Synthesis Question 6
* Math Quiz 4, Community Ecology Pt. 2, Synthesis Question 7
* Ecosystem Ecology Pt.1
* Food Relay Activity (Quiz)
* Data Set 4, Ecosystem Ecology Pt.2, Synthesis Question 8

**Week 2**

* Data Set 5, Ecosystem Ecology Pt. 3, Free Response Question Writing
* Biome Project Presentation
* Unit 7 Test

**Week 3** *Lab 2*

* Darwin & Evolution Pt.1,& 2
* Synthesis Questions 1 & 2
* Microevolution Pt.1, Math quiz 1
* Lab Investigation 2 Paperwork
* Mock Exams
* Debrief Unit 7 test and Mock Exams

**Week 4**

* **Spring Break !!!!!!!!!!!!!!!!!!!!!!!**

***April***

**Week 1** *Lab 2*

* AP Biology Mock Reading
* Lab Investigation 2 Pt. 1 & 2 - (Hardy-Weinberg)
* Data Set question 2, Microevolution Pt.2 Synthesis Question 3
* Math Question 2, Microevolution Pt. 3

**Week 2** *Lab 3*

* Math Question 3, Macroevolution Pt.1, Synthesis Question 4
* Data Set Question 3, Macroevolution 2
* Free Response Question Writing
* Math Quiz 4, Phylogeny & Geologic Time
* Cladistic Tree Building Exercise, Lab Investigation 3 Paperwork

**Week 3**

* Lab Investigation 3 (BLAST)
* Hardy-Weinberg Problem Sheet
* Unit Test 8

**Week 4**

* Unit Test 8 Debrief
* Debrief Free Response Questions from Mock Exams
* Biodiversity Project Presentations
* Review Macromolecules
* Review Metabolism, Free Energy & Enzymes

***May***

**Week 1**

* Review Nervous System, Immune System, Statistic Basics, Cell Organelles & Cell Cycle
* Review Cell Membranes, Transport, & Cell Signaling

**Week 2**

* **AP Testing Begins**
* Review Endocrine & Development
* Review Protein Synthesis
* Review PCR, Gel Electrophoresis, Cloning, Transformation
* Review Mendelian Genetics & Probability
* Review Math Equations & Test Strategies
* Finals, Etc.