

## **Campbell Biology Student Access Procedures**

1. Register at [www.pearsonschool.com/access](http://www.pearsonschool.com/access)
2. Your code(s) begin with the letters SS
3. Click on Covered Titles and Choose your text (Campbell Biology 7<sup>th</sup> Edition)
4. Choose Student Registration
5. Accept - Pearson License Agreement
6. Access Information -

\* Create username & password

\* Enter the Student Access Code below:

SSNAST-RANEE-OBEYS-SIDED-GUYOT-LURES

7. Account Information - complete your name & school information
8. Confirmation & Summary - link to login and join a class
9. Our class ID is **cm296169**.



# Animal Diversity Project Grading Rubric

## Sample AP Biology Project Completion Dates

Dates	Completion Checklist
6/18/2011	Ch. 50 Campbell Place Activities & Quizzes
6/18/2011	Ch. 51 Campbell Place Activities & Quizzes
6/25/2011	Ch. 52 Campbell Place Activities & Quizzes
6/25/2011	Ch. 53 Campbell Place Activities & Quizzes
7/1/2011	Ch. 54 Campbell Place Activities & Quizzes
7/1/2011	Ch. 55 Campbell Place Activities & Quizzes
7/8/2011	1. Ch. 50 terms & concepts defined
7/8/2011	2. Comparative Chart that summarizes the biotic and abiotic factors at work biomes: tropical forests, savanna, desert, chaparral, grasslands, coral reef, deciduous forests, coniferous forest, tundra, wetlands, rivers and streams, benthos
7/15/2011	oligotrophic lakes, eutrophic lakes, intertidal zones, ocean pelagic zone, estuary
7/22/2011	3. 8 themes listed, described, and example provided
7/29/2011	4. Ecosystem location (biome) explained
	5. Biological community described
	at least 7 species used to describe the community and one of the following producers, primary, secondary, tertiary consumers, decomposers
8/5/2011	6. Species niche described
	population size, location in the ecosystem, reproductive behavior, nutritional needs, food web position, sensitivity to environmental insults
	usefulness/attractiveness to humans
8/12/2011	7. Biological community interaction described
	mutualism, parasitism, commensalism, competition, predation, coevolution
8/19/2011	8. Disturbance illustrated and explained
	climate change, direct human interference, effect on each species
	humans, location in ecosystem, population size
8/26/2011	9. Analysis questions thoroughly answered
8/26/2011	Reference Page

## **AP Biology Summer Break Assignment Summer Break Assignment**

### ***Purpose***

The purpose is to become familiar with the major themes of the field of biology and to complete the ecology portion of the AP biology course syllabus. Chapters 50 - 55 in your textbook are the main resource needed to complete each aspect of your summer break assignment. This unit will not be covered in depth in class. Therefore, you are responsible for completing every aspect of the assignment. We will review the first week of school.

### **Due Date**

This assignment must be completed by September 12, 2011.

### **PART 1**

Your first task is to setup a student account at <http://www.phschool.com/access/>. Then you will become familiar with the Campbell Place Website found at <http://www.aw-bc.com/campbell>. We will utilize this website extensively throughout the year. Most chapter and unit assignments for the course can be found at the Campbell Place website. The 7<sup>th</sup> edition ebook that you will use need to complete your summer assignment is also found here. You must explore every aspect of this website. This includes the following links: Bioflix, MP3 Tutors, Discovery Channel Video Clips, Glossary, Casebook, Graph I, Case Book, and Lab bench (used for AP Exam Lab Review).

For each chapter, 50 – 55 in the ecology unit you must complete and submit several quiz assessments. A list of these assessments include the mp3 tutor quizzes, discovery channel video clip quizzes, graph it activity quizzes, and bio lab online quizzes. Additionally you are required to complete the self, pretest, chapter, and activity quizzes. Some of the chapters in the unit have all of the quiz assessments. Others may not have as many. There will be an Ecology Unit test at the end of the first week of class when you return in the fall.

### **PART 2**

Each researched component of part two will be provided in a PowerPoint of other presentation format.

- Review chapter 1 in your textbook. Chapter 1 outlines 11 themes that will be the focus of the course. For all of the 11 themes, find an example found in chapters 50 – 55. Type the themes, a description of the themes, and the examples.

- Read chapter 50 and define the following terms/concepts

Abiotic components  
Ecosystem  
Community

Biotic components  
Ecology

Populations  
Biosphere

Develop a comparative chart that summarizes the biotic and abiotic factors at work in the following biomes: tropical forests, savanna, desert, chaparral, temperate grassland, temperate deciduous forest, coniferous forest, tundra, oligotrophic lakes, eutrophic lakes, rivers and streams, wetlands estuary, intertidal zone, coral reef, ocean pelagic zone, and benthos.

### **Summer Break Assignment Part 3**

You must use PowerPoint or another presentation tool to present each researched component of part three. Students must read chapters 50 – 55 in Campbell biology 7<sup>th</sup> edition. Information from these chapters will be used to complete #5 and #6 of this assignment. Please be sure to read these chapters in their entirety.

Design An Ecosystem  
Adaptated from a lab by Karen Westerling  
[www.accessexcellence.org](http://www.accessexcellence.org)

#### ***Introduction***

In this portion of the project you are to create several species in a unique ecosystem. You will describe your species niches as well as their reproductive habits. You will then predict the expected effects of an environmental disturbance (e.g., a flood, paving over the ecosystem to build a new Western High School, clearing of everglades land, hunting, introduction of a foreign species, etc.). You may visit the web address above for an example.

#### ***Hints***

1. Keep it simple. You will not have a billion years to do this activity.
2. Look ahead. Reading the entire activity first will probably make your work more efficient. Consider the conditions associated with species endangerment while you plan your ecosystem.

#### ***Method***

1. Your mission is to design an ecosystem. You need to provide either a written and/or visual detail of your ecosystem.

2. Here are some details that you must include.
  - a. **Location:** your ecosystem may be anywhere on earth. Name and describe the biome in which your ecosystem is located.
  - b. **Biological community:** imaginary organisms are very welcome.
3. Include at least 7 species. You must have at least one species from each of the following groups:
  - a. Producers
  - b. Primary consumers,
  - c. Secondary and higher level consumers
  - d. Decomposers
4. For each species include its:
  - Population size
  - Location in your ecosystem
  - Reproductive behavior for example, mating rituals, fertilization method, number of offspring, care of offspring, etc.
  - Nutritional requirements (if an animal) or soil and water requirements (if a plant)
  - Position in food web
  - Sensitivity to environmental insults
  - Any known usefulness/attractiveness to humans
5. Include an example of each of the following symbiotic relationships in your ecosystems: co-evolution, parasitism, commensalism, mutualism, predation, and competition
6. Now that you have created a beautiful ecosystem, add a disturbance. Your disturbance may be spontaneous or human-made, intentional or unintentional, or a combination of these. Here are some ideas, but you are not limited to these.
  - A. **Climate change:** warming, cooling, change in water availability
  - B. **Direct human interference:** hunting, harvesting, land clearing, pesticides, herbicides, introduction of a foreign species, etc.
7. Identify the effect of the disturbance on each species in your ecosystems. Be as specific as possible.

### Analysis Questions

1. Draw and explain an energy pyramid that would represent part of your ecosystem.
2. How could you determine the GPP and NPP for your community?
3. For one of your species, draw and explain a survivorship curve that would represent the pattern of survival found in that species.
4. For one of your species, outline the life history by discussing the importance of:
  - a. number of reproductive episodes per lifetime
  - b. number of offspring per reproductive episode
  - c. age of first reproduction

5. Discuss limiting factors that would be present in your ecosystem. Be sure to define them as density-dependent and density-independent.
6. Specify which organism in your community could be a keystone predator? Why?
7. What are some defenses that can arise/evolve in species as a result of predation?
8. Pick one of the cycles (other than water) explained in Chapter 49 and discuss how it would work in your ecosystem. You may add additional items to your ecosystem if necessary.
9. Explain how biological magnification would occur in your community if a toxin like DDT were introduced.
10. Describe how you would figure out the population growth rate for one of the populations that lives in your ecosystem.

#### **Part 4**

All additional references other than your textbook used, must be completed in MLA format.

**Western High School**  
**Advanced Placement Biology Course Requirements**  
**Mr. Morgan**  
**(754) 323-2400**

AP Biology is a college level course. Taking this course in high school provides a student with an opportunity to earn college credit while still in high school. Each student must earn at least a 3 or higher out of 5 in order to earn college credit. Great opportunities in life usually require much time and sacrifice. AP Biology is a year long commitment that culminates with each student taking the AP Biology Exam. It is both encouraged and expected that each student will take the AP Biology Exam. The course will be intense and very challenging, and we will cover topics at a fast pace. It will require that you the student spend the necessary amount of time studying, reading, and completing required assignments. It is suggested that you form study groups with your fellow classmates to prepare for all chapter tests, mid-term exams, final exams, and the Advanced Placement Exam.

**The choices we make dictate the life we lead!**

**I. Course Materials (needed daily)**

- A. Three ring notebook
  - 1. Your binder will be used to contain your biology coursework
  - 2. Items to be placed in your biology binder include all notes, tests, quizzes, graded/ungraded assignments, science current events, etc. that are assigned throughout the semester. Binders may be examined periodically throughout the semester.
- B. Course textbook(Biology 6<sup>th</sup> Edition, Neil A. Campbell)
- C. Student Study Guide for Biology Campbell / Reese 6<sup>th</sup> Edition Martha R. Taylor available at [www.aw.com/bc](http://www.aw.com/bc)
- D. Laboratory notebook required from all students. This will contain the formal lab write-ups.
- E. Supplemental AP Biology Books(Barons, Cliff Notes, Kaplan, Princeton Review,)
- F. Writing utensil(s)
- G. Writing paper
- H. Colored pencils

**II. Evaluation and Grading**

- 1. *Grading scale:* 100-90= A, 89-87= B+, 86-80=B, 79-77=C+, 76-70=C, 69-67=D+, 66-60=D, 59 or below =F  
Your grade for each quarter is determined by adding the number of points earned, and dividing that number by the total points possible, thus equaling a percentage score. Your course semester final grade is determined by combining your grades earned during each quarter combined with your final exam grade. Below is a percentage breakdown for your quarter and semester grades:

**Homework and Classwork: 25%**

**Test and Quizzes: 50%**

**Labs and Projects: 25%**



2. **Class Participation:** It is expected that every student participates in classroom lecture discussions. It is suggested that you develop pre-class discussion notes to assist you in leading a discussion of a related topic. Each student will have the opportunity to earn participation points each week. Participation points serve as extra credit points. These points are earned by actively participating in all class activities and discussions. Tardiness and unexcused absences result in subtraction of extra credit participation points.

III. **Factors influencing the student's final grade include:**

1. attendance
2. being prepared with books, paper, and writing utensils
3. consistent completion of current events
4. Accumulation of participation points
5. scores on tests, quizzes, labs, homework, and classwork

IV. **Makeup Work**

- A. Make up work is only granted with a legitimate excused absence.
- B. If absent, check the class folder at my desk for missed assignments, and obtain class notes from a classmate. **It is the student's responsibility to find out and to complete what he or she has missed!** If an absence(s) is anticipated, it is the student's responsibility to obtain missed assignments prior to or upon returning from the absence(s).
- C. Any test, quiz, lab, or assignment missed due to one or more unexcused absences will receive zero credit.
- D. Any make up work, labs, or assignments missed due to an excused parental, guardian, or school sponsored activity must be completed on the student's own time. In order to receive full credit, students will have two days upon returning from their excused absence to make up missed work.

V. **Late Work**

Late work is only accepted one day after original due date for C credit.

VI. **Homework Policy:**

Homework is to be completed by the beginning of the following class.

VII. **Absence Policy:**

Each unexcused absence results in a 2 point reduction from the student's extra credit total.

VIII. **Tardy Policy:**

**Tardy Policy:**

Tardies to school (after 7:45 am) will be dealt with in the following manner:

- |                         |  |
|-------------------------|--|
| 1 <sup>st</sup> offense | Student warning generated by sign in printer |
| 2 <sup>nd</sup> offense | Parent contact                               |
| 3 <sup>rd</sup> offense | Voluntary lunch duty or Saturday School      |
| 4 <sup>th</sup> offense | Student assigned 2 Saturdays                 |

Tardies throughout the school day will be dealt with in the following manner:

- 1<sup>st</sup> offense = Warning
- 2<sup>nd</sup> offense = Parent contact
- 3<sup>rd</sup> offense = Detention
- 4<sup>th</sup> and subsequent offenses = Referral to school social worker

1. Each tardy counts 2 points off a student's extra credit total.
2. Each subsequent tardy after two will also result in a two point reduction off the total extra credit total.
3. Any test, quiz, lab, or assignment missed due to tardiness will receive a reduction of points.

Whether tardy to class or school students are to be given the opportunity to make up missed work for full credit. There are to be no academic penalties for tardiness. This however does not apply to extra credit.

4. Each tardy counts 2 points off a student's extra credit total.
5. Each subsequent tardy after two will also result in a two point reduction off the total extra credit total.

## The choices we make dictate the life we lead!

### IX. Consequences for Cell phone / Other Electronic Item Violations

Offense	Confiscation	Consequence
1 <sup>st</sup>	Hold until the next school day. Parent must come to school with ID to retrieve item	Parent Conference
2 <sup>nd</sup>	Hold until the next school day. Parent must come to school with ID to retrieve item	Saturday School Parent in School Conference
3 <sup>rd</sup>	Hold until the next school day. Parent must come to school with ID to retrieve item	Detention or Internal Suspension for one to two days. Student is prohibited from bringing item to school for the rest of the year
4 <sup>th</sup>	Hold until the next school day. Parent must come to school with ID to retrieve item	External Suspension for one to three days. Student no longer allowed to bring item to school for the rest of the year
5 <sup>th</sup>	Hold item until the end of the school year.	

Any test, quiz, lab, or assignment missed due to tardiness will receive a reduction of points.

### IX. Classroom Rules:

- A. No profanity or use of derogatory racial slang is allowed.

- B. Listen to instructions the first time they are given
- C. Be in class on time
- D. Have all materials ready to use when the bell rings
- E. Be respectful of self and others at all times

**X. Consequences for Inappropriate Behavior**

1. 1st offense results in a warning (students name is written down)
2. 2<sup>nd</sup> offense (2<sup>nd</sup> check) results in an after school detention and parent conference
3. 3<sup>rd</sup> offense (3<sup>rd</sup> check) results in an additional detention
4. 4<sup>th</sup> offense (4<sup>th</sup> check) results in an additional detention and referral
5. Severe disruptions may result in immediate removal from the class and a parent, teacher, and student conference.
6. Not serving assigned detentions may result in the subtraction or elimination of student extra credit points.
7. Every time a student's name is written down, 5 extra credit points are subtracted from the extra credit total.

**Possible Rewards**

Praise (daily)

Positive notes or phone calls home (random)

Whole class radio time ( random)

Various other positive perks (throughout the school year)

**The intrinsic joy of learning (each day of the school Year)**

I have read and understand the classroom policies and grading system. I also understand the consequences for not following these policies, which are clearly specified by Mr. Morgan in the paragraphs above.

Student Signature \_\_\_\_\_ Date: \_\_\_\_\_

Parent or Guardian \_\_\_\_\_ Date: \_\_\_\_\_

Parent's Home Number \_\_\_\_\_

Parent's Work Number \_\_\_\_\_

**Achievement in Every Field of Human Endeavor!**

# AP Biology Themes

- a. The cell
- b. Heritable information
- c. Emergent properties of biological systems
- d. Regulation
- e. Interaction with the environment
- f. Energy and life
- g. Unity and diversity
- h. Evolution
- i. Science, technology, & society
- j. Scientific inquiry
- k. Structure and function

# Biology Student Information Sheet

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Nickname \_\_\_\_\_

Student Number \_\_\_\_\_ Grade Level \_\_\_\_\_

Birth date \_\_\_\_\_ Birth Place \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Home Phone # \_\_\_\_\_ Email Address \_\_\_\_\_

Mother's Name \_\_\_\_\_ Father's Name \_\_\_\_\_

Mother's Work # \_\_\_\_\_ Father's Work # \_\_\_\_\_

Guardian's Name \_\_\_\_\_ Guardian's Work # \_\_\_\_\_

I live with:  Mother and Father  Mother & Stepfather  
 Mother only  Father & Stepmother  
 Father only  Other \_\_\_\_\_

Where are your parent/guardian from? \_\_\_\_\_

How many siblings do you have? \_\_\_\_\_

What school did you attend last year? \_\_\_\_\_

What science class did you take last year? \_\_\_\_\_

Who was your science teacher? \_\_\_\_\_

What is your favorite subject in school? \_\_\_\_\_

What is your least favorite subject in school? \_\_\_\_\_

Do you have a job? \_\_\_\_\_ If so, where? \_\_\_\_\_

List any athletic teams that you are a part of.

\_\_\_\_\_  
\_\_\_\_\_

List any extracurricular activities that you enjoy.

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If you are to receive an effort grade in Mr. Morgan's Biology class what will it be?

What academic grade will you work to achieve?

What type of instruction can Mr. Morgan use to help you earn the grade you desire?  
For example labs, lectures, videos, activities, etc.

What do you plan to do after high school and what are you career goals?

If you could travel anywhere in the world and do whatever you wanted, expenses paid, where would you go and what would you do?

**Please copy your entire schedule below.**

**1<sup>st</sup> period** \_\_\_\_\_ **Teacher** \_\_\_\_\_ **Room** \_\_\_\_\_

**2<sup>nd</sup> period** \_\_\_\_\_ **Teacher** \_\_\_\_\_ **Room** \_\_\_\_\_

**3<sup>rd</sup> period** \_\_\_\_\_ **Teacher** \_\_\_\_\_ **Room** \_\_\_\_\_

**4<sup>th</sup> period** \_\_\_\_\_ **Teacher** \_\_\_\_\_ **Room** \_\_\_\_\_

**THE VALUE OF TAKING AP BIOLOGY...**

These are excerpts from a Jay Matthew's column in The Washington Post (11/23/2004)  
<http://www.washingtonpost.com/wp-dyn/articles/A6900-2004Nov23.html>

Students who struggle in an AP course with its college-sized reading list and do not pass the college-level, three-hour final exam, are still much better off than if they did not take the course and the test. They have gained from the experience a visceral appreciation of what they are going to have to do to survive in college. That taste of academic challenge stays with them and helps them work hard enough to get their bachelor's degree.

A chart in the book "Do What Works: How Proven Practices Can Improve America's Public Schools," by Tom Luce and Lee Thompson give statistical proof that Advanced Placement (AP) courses lead to greater college success both for traditionally high achieving students and for disadvantaged students.

**AP'S IMPACT ON TEXAS STUDENTS**

Percent of Texas high school students receiving <b>bachelor's degrees</b> from Texas colleges and universities within five years of graduation:			
	<b>Passed an AP Exam</b>	<b>Took, Did Not Pass AP Exam</b>	<b>Did Not Take AP</b>
<b>Anglo</b> (27,627 students)	57%	43%	22%
<b>Hispanic</b> (19,868 students)	47%	26%	8%
<b>African American</b> (7,813 students)	42%	36%	11%
<b>Low-Income</b> (22,028 students)	40%	24%	7%
<b>Total</b> (78,079 students)	57%	37%	17%

*Source: National Center for Educational Accountability*

The left column in the chart, under "Passed an AP exam," is the easiest to understand. Those students showed academic talent in high school and have degree completion rates above the national average for five years after high school graduation. The exciting parts of the chart are the middle and right columns, under "Took, But Did Not Pass" an AP exam and "Did Not Take" an AP exam. Students who did not take AP in high school showed little success in college. That was not very startling. But look at the college completion percentages of students who took but did not pass an AP exam. They still substantially increased their chances of college success. Anglos who flunked an AP exam were twice as likely to get their degrees as Anglos who never took one. Hispanics, African American and low-income students were three times as likely to get their degrees if they at least tried AP. A 1999 U.S. Education Department study reported similar results from an analysis of 8,700 students.

## ADVANCED PLACEMENT AS A POSITIVE OUTCOME FOR ALL STUDENTS

The following is a reprint of an article by Kathleen Plato published by New Horizons for Learning <http://www.newhorizons.org/spneeds/inclusion/teaching/plato.htm>

*If anyone can think of an academic program in the last decade that has had as positive an impact on American public high schools as AP, I would like to hear what it is. I can't think of any that comes even close.*

— Jay Mathews, "Advanced Placement" Education Week, Aug. 7, 2002, pg 68.

Jay Mathews is education reporter for The Washington Post and author of *Class Struggle: What is wrong (and Right) About America's Best Public High Schools*. He knows a lot about Advanced Placement (AP) and change in the American High School. In the early 1990s he was the first reporter to write about teacher Jaime Escalante and the amazing change that took place at Garfield High School in Los Angeles as high numbers of low-income and minority students took and passed advanced placement calculus. The public learned of that story in the popular movie, *Stand and Deliver*. Mathews continued to study and report on the tremendous growth in AP nationally as high schools worked on reform issues to better prepare students for competitive colleges and universities. Six years ago he invented a simple way of measuring AP participation in every high school called the Mathews Challenge Index. The Index is the number of AP exams taken divided by the number of graduating seniors. The Index is the basis for Newsweek magazine's 100 Top High Schools list, published each year and posted on The Post's website.

### What is Advanced Placement?

Advanced Placement courses are college-level courses offered in high schools across the nation. The 34 different subject matter courses are standardized by the College Board. Passing the accompanying examinations may result in advanced placement or college credit. AP and advanced placement courses offered by the International Baccalaureate (IB) Organization are considered the most rigorous classes in U.S. high schools today. In May of 2003, over 1.5 million AP examinations were taken in the nation, twice the number since 1994. In Washington State, 28,378 examinations were taken, quadruple the exams taken in that same time period. Even more heartening is that fact that participation for low-income and underrepresented minority students is increasing at a steady pace.

What has sparked this tremendous growth in AP? Why are AP and IB programs ranked high on the list of reform factors transforming high schools across the nation? What positive outcomes result for all students as these programs are made available at a growing number of high schools? This article responds to these questions and presents the research and factors that support the argument for this powerful program.

### AP is a Predictor of College Success

In 1999, a U.S. Department of Education study by Clifford Adelman titled "Answers in the Tool Box" examined the factors which could be used to predict college success — the attainment of the Bachelor's degree. Adelman was not examining factors that supported college admission; his research was focused on college completion. The study concluded, "No matter how one divides the universe of students... a high school curriculum of high academic intensity and quality is the factor that contributes to a student's likelihood of completing a college degree." Courses such as AP and IB outranked, grade point, class rank, SAT scores as contributing factor. Furthermore, rigorous high school courses were shown to mitigate the effects of socioeconomic status. Just one AP course exposes a student to college-level work. Even if the



examination is not taken or passed, the challenge of the course and the emphasis on critical thinking, study skills and increased content knowledge prepares a student for college work.

### **AP as an Equity Issue**

Colleges and universities look for AP and IB on a student's transcript for this very reason. AP and IB are college level courses. AP courses and examinations represent a national standard of teaching and learning. An AP Calculus course in Olympia, Washington follows the same outline and covers areas in the same depth as one offered in Tampa, Florida or New York City. Students in these cities would be taking the exact same examination on the same day in May. Taking AP presents a challenge to students but is proven advantage in the highly competitive admissions process. Not offering AP or IB can potentially place a high school's graduates at a disadvantage at competitive institutions.

In California, this issue became the basis of a 1999 lawsuit. The American Civil Liberties Union filed a class action lawsuit on behalf of public school students who were being denied access to advanced placement courses. The state was challenged for not supporting the development of AP in all areas of the state. This resulted in a significant state funded initiative supporting AP in all high schools regardless of the socioeconomic status of the community and students. At about this same time, major federal initiatives such as the AP/IB fee reduction program for low-income students and the Advanced Placement Incentive Program aimed at schools with 40 and above percent poverty levels efforts have had a major impact on the development of new AP and IB programs in even the smallest, most rural communities with high poverty concentrations. Increased access gives greater numbers of underrepresented students the opportunity to meet the AP challenge and reap the benefits.

### **Advanced Placement Prompts Curriculum Reform and Alignment**

The education reform movement in America in the early 1990s centered on the development of standards and performance-based assessments. Virtually all states took on the task of "ratcheting up" and systematizing what students need to know and do at various grade levels and by subject. In addition some states added provisions to their reform legislation to move toward a "seamless" system of education from Kindergarten through college. Since then, the state standard movement is firmly in place, however, in many states the "seamless" system development has been hindered by conflicts between different governance systems for K-12 and various higher education options. Advanced Placement as one on several "dual credit" type options for students is that is greatly aiding this effort by bridging the gap between college and high school systems without the controversial transferring of funding out of one educational system to another.

Advanced Placement has existed since the 1960s. Over the last forty plus years, the same process for course and examination development has taken place. The College Board brings together subject matter experts from universities and secondary schools across the country. The result is coursework offered in the high school setting that is considered to be "college-level". To bring students to this level, high schools and middle schools engage in curriculum alignment through the formation of "vertical teams" by subject area, of teachers in the grades 6 through the high school grade when the AP course is taught.

In addition, some systems implement "pre-AP" courses which are those courses that prepare students at the middle level with the study skills, critical thinking skills and the increased content knowledge necessary for AP. As the process of linking the college-level standards and expectations to the grade levels below becomes established and merges with the efforts to implement the state performance standards, teaching and learning improves and all students, not just AP course and exam takers benefit.

Dan Newell, Principal of Blaine High School in Blaine Washington, sums it up this way, "It (Advanced Placement) was the most influential thing I have ever done as far as putting a new level of enthusiasm in my building and adding incredible strength to an already strong, small school schedule."

In summary, the tremendous growth of Advanced Placement and the International Baccalaureate programs in Washington State and the nation is having a powerful effect on our education system in general and providing positive outcomes for all students. Due to AP participation, Washington State's Bellevue school district had three of its high schools make the top 20 on Newsweek magazine's 100 Top High Schools list this past year, and was featured on the cover and as the lead story in the June 2, 2003 edition of Newsweek. Increased numbers of students are prepared for college-level work and success, high expectations and achievement levels are being reached as more low-income and minority students take on the most rigorous courses, closing the achievement gap, and our overall education system is being strengthened as middle and high school are being reformed and imbedded with a culture of academic achievement and high expectations.

**About the author:**

*Dr. Kathleen Plato Ph.D. is Supervisor, Advanced Placement Programs at the Washington State Office of Superintendent of Public Instruction. She has been with the state education agency for 24 years in a variety of program, policy and evaluation positions. Her areas of expertise are education research, evaluation and large-scale program management. Dr. Plato has served as principal investigator, advisor and project director for many U.S. Department of Education funded studies. Currently, she manages the Advanced Placement and International Baccalaureate Fee Reduction programs and will serve as Project Director for the newly received, federally- funded Advanced Placement Incentive Grant. The Washington State project, one of twenty-two funded nationally, will focus on increasing Pre-AP and AP classes in schools with high percentages of low-income students. She presents frequently on the topic of equity and access to AP to state policy boards and at state and national conferences. Dr. Plato is a former President of the Washington Education Research Association. Email: KPlato@ospi.wednet.edu*

## HOW TO HELP YOUR CHILD SUCCEED IN AP BIOLOGY...

### 1. Quiet structured study time

Help your child to establish a study routine by setting up a quiet study area and a consistent quiet study time nightly. The routine will help them practice good study habits for college.

#### **Should the study area be their bedroom or a family area, like the dining room?**

That depends on your household and your child. If your child is self-motivated and can work steadily without supervision, then a quiet desk space in their bedroom would work well. However, if their bedroom is equipped with distractions like a stereo or TV, then this might not be conducive to concentrating on homework and the family area may work better.

### 2. Work on Biology EVERY night

For your child to stay up-to-date in this course they need to spend some time on biology every night. The ideal would be about one (1) hour per night or approximately six (6) hours per week. This would include textbook reading, lecture review, lab notebook assignments, extra credit assignments, and test preparation. On weeks when they cannot devote that one hour on a weeknight, they should put in extra time on weekends to make up for it.

On nights where they have minimal time, your child should at least review the day's lecture notes (PowerPoint notes in their notebook and on the Web)

### 3. Support Study Groups

Encourage your child to arrange a study group with other students in the class. Each student will have different strengths and weaknesses in this course. In one unit, your child will be the teacher to other students and in a different unit they will be the student. Putting two or more heads together is always a benefit. You never learn something as well as when you have to explain it to someone else.

However let me emphasize that, while study groups and cooperative effort are strongly encouraged; on final written work, all students are required to craft their own answers and must have a completely uniquely worded answer for each question

### 4. Use a Lifeline

Encourage your child to ask for help. I can stay after any day for extra help. Also, all my AP students have my e-mail address and they can readily e-mail me for help at any time after school hours and I will make every effort to reply to them immediately. Do not allow them to feel like they are intruding, I am here to help them understand and learn to love the subject of Biology as much as I do.

### 5. Don't Panic! Stick with it!

Some parts of this course will come more easily than others. Encourage your child to work steadily and not to be discouraged. Success will build as they improve their critical thinking skills and their writing ability through practice. This is a college course and they are working on more than learning biology; they are working on skills that they will use to succeed academically for years to come.

Your child needs to work hard and work steadily and they will be rewarded in this course!

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