AP Biology Course Audit Document

Curriculum Requirements	Pages
CR1 Students and teachers use a recently published (with in 10 years) college level biology textbook.	**2**
CR2 The course is structured around the enduring understandings within the big ideas as described in the AP®Biology Curriculum Framework.	**3-14**
CR3a Students connect the enduring understandings within Big Idea 1 (the process of evolution drives the diversity and unity of life) to at least one other big idea	**3-14**
CR3b Students connect the enduring understandings within Big Idea 2 (biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis) to at least one other big idea	**3-14**
CR3c Students connect the enduring understandings within Big Idea 3 (living systems store, retrieve, transmit, and respond to information essential to life processes) to at least one other big idea.	**3-14**
CR3d Students connect the enduring understandings within Big Idea 4 (biological systems interact and these systems and their interactions possess complex properties) to at least one other big idea	**3-14**
CR4a The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 1.	**3, 4, 5, 6, 8, 9, 10**
CR4b The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 2.	**3-7, 9, 10, 11**
CR4c The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 3.	**3-10**
CR4d The course provides students with opportunities outside of the laboratory investigations to meet the learning objectives within Big Idea 4.	**3-11**
CR5 The course provides students with opportunities to connect their biological and scientific knowledge to major social issues (e.g., concerns, technological advances, innovations) to help them become scientifically literate citizens	**4, 7-11**
CR6 The student-directed laboratory investigations used throughout the course allow students to apply the seven science practices defined in the AP Biology Curriculum Framework and include at least two lab experiences in each of the four big ideas	**3-11**
CR7 Students are provided the opportunity to engage in investigative laboratory work integrated throughout the course for a minimum of 25 percent of instructional time.	**3-14**
CR8 The course provides opportunities for students to develop and record evidence of their verbal, written and graphic communication skills through laboratory reports, summaries of literature or scientific investigations, and oral, written, or graphic presentations.	**3, 15**

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AP Biology Syllabus

Gompers Preparatory Academy

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Course Overview

The Advanced Placement Chemistry course is designed to provide a first-year college Biology experience. By structuring the course around the four big ideas, enduring understandings, and science practices I assist students in developing an appreciation for the study of life and help them identify and understand unifying principles within a diversified biological world.

What we know today about biology is a result of inquiry. Science is a way of knowing.Therefore, the process of inquiry in science and developing critical thinking skills is the most important part of this course.

At the end of the course, students will have an awareness of the integration of other sciences in the study of biology, understand how the species to which we belong is similar to, yet different from, other species, and be knowledgeable and responsible citizens in understanding biological issues that could potentially impact their lives.

Instructional Context

I teach AP Biology to juniors and seniors at a high school that has a diverse population and is 65% disadvantaged. Students must have completed both first year biology and chemistry prior to enrolling in AP Biology.

AP Biology will meet Tuesday-Friday for 80 minutes and for 53 minutes on Monday for a total of 373 minutes/week. Saturday sessions will be scheduled as necessary. The course will require a minimum of one and a half hours of homework each night, including reading from the required texts, reviewing and adding to notes, and either preparing for or writing up labs. Because of the intensive nature of the course, separate times may be allotted for students to conduct lab experiments. To accommodate varied schedules, labs will be conducted after school and

Saturdays as needed each semester. This is a college level course. Students are expected to work outside of typical school hours on their course work, including weekends.

Instructional Resources:

- Hillis, David M., et al. *Principals of Life*. 2nd edition. This book is used as the primary resource and is less than a year old.
- Reece, Jane B., et al. *Campbell Biology*. 10th edition.
- *AP Biology Investigative Labs: An Inquiry-Based Approach*, The College Board, 2012

Advanced Placement Biology Content

My AP course is structured around the four big ideas, the enduring understandings within the big ideas and the essential knowledge within the enduring understanding.

The Big Ideas:

Big idea 1: The process of evolution drives the diversity and unity of life.

Big idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.

Big idea 3: Living systems store, retrieve, transmit and respond to information essential to life processes.

Big idea 4: Biological systems interact, and these systems and their interactions possess complex properties

The Investigative Laboratory Component

The course is also structured around inquiry in the lab and the use of the seven science practices throughout the course.

Students are given the opportunity to engage in student-directed laboratory investigations throughout the course for a minimum of 25% of instructional time. Students will conduct a minimum of eight inquiry-based investigations (two per big idea throughout the course). Additional labs will be conducted to deepen students' conceptual understanding and to reinforce the application of science practices within a hands-on, discovery based environment. All levels of inquiry will be used and all seven science practice skills will be used by students on a regular basis in formal labs as well as activities outside of the lab experience. The course will provide opportunities for students to develop, record, and communicate the results of their laboratory investigations. As indicated in the scope and sequence document, the following AP Biology Investigative Labs will be conducted during the course:

Big Idea 1 Labs: Investigation 2 Mathematical Modeling – Hardy-Weinberg: Spreadsheet development to investigate factors affecting
Investigation 3 BLAST- Students use NCBI to compare DNA and protein sequences for organisms to test student-generated hypotheses on their relatedness. Hardy-Weinberg Equilibrium.

Big Idea 2 Labs: Investigation 4 Diffusion/Osmosis –Students investigate diffusion and osmosis in an open inquiry using model systems and in plant tissue.
Investigation 5 Photosynthesis -Students investigate photosynthetic rate under a variety of student selected conditions.
Investigation 6 Cellular Respiration - Students investigate respiration rates in various organisms in a guided inquiry.

Big Idea 3 Labs Investigation 7 Cell Division - Mitosis and Meiosis. Students compare mitotic rate after exposure to lectin or other substances presumed to affect mitotic rate.
Investigation 8 Bacterial Transformation - Students investigate bacterial transformation.
Investigation 9 Restriction Enzyme Analysis of DNA – students investigate restriction enzyme analysis

Big Idea 4 Labs Investigation 11 Transpiration -Students investigate the movement of water through plants
Investigation 12 Pill Bug Behavior - students investigate chemotaxis in pill bugs in an open inquiry.

Investigation 14 Enzyme Activity - In an open inquiry lab, students will investigate and quantify factors that affect enzyme action

Science Practices (SP)

1. The student can use representations and models to communicate scientific phenomena and solve scientific problems.
2. The student can use mathematics appropriately.
3. The student can engage in scientific questioning to extend thinking or to guide investigations within the context of the AP course.
4. The student can plan and implement data collection strategies appropriate to a particular scientific question.
5. The student can perform data analysis and evaluation of evidence.
6. The student can work with scientific explanations and theories.
7. The student is able to connect and relate knowledge across various scales, concepts and representations in and across domains.

Social and Ethical Concerns

There are numerous opportunities to connect the study of biology to students' personal lives as well as major social issues in order to help them become scientifically literate citizens. Since biology is a rapidly evolving discipline, it is vital that students leave the class with the ability to use the essential knowledge and skills to synthesize new discoveries and apply them to an ever-changing world. Instructional questioning activities in which students will write and verbally express his/her opinion will address the following social and ethical topics:

- The development of antibiotic resistance. *How are you contributing to the process?*
- The privacy and ownership of genetic information. *Who owns your DNA?*
- The effects of human impact on ecosystem health*. What footprint are you leaving?*
- The impact of cell cycle research on the treatment of cancer*. How can understanding the cell cycle help fight cancer?*
- The use of genetic engineering (such as electrophoresis and bacterial transformation) to investigate crimes? *Can DNA prove who is guilty?*
- The develop treatment for diseases such as diabetes*. Is stem cell research worthwhile?*

Units of Instruction

The matrix that follows shows the places throughout the course where the scientific processes and four Big Ideas intersect during the learning activities performed in addition to the AP Biology Investigative Labs.

(Continued on pages 5-11)

AP Biology
Matrix of Scientific Practices, Big Ideas and Course Content 2012-2013
(showing connections of SP and Big Ideas)

	SP1	SP2	SP3	SP4	SP5	SP6	SP7	Big Idea 1	Big Idea 2	Big Idea 3	Big Idea 4
Unit 1: Introduction, Biochemistry											
Introduction, Big Ideas • Paired Reading • Assessment: Summary								X	X	X	X
Lab Safety, Chemistry • Activity: POGIL Safety	X			X							X
Assessment: Safety Quiz • Activity: Properties of Water discrepant event group activity	X			X		X			X		X
Carbon, Functional Grps • Activity: Functional Group sort • Assessment: Unknown chemical F group id				X		X					X
Organic Macromolecules • Activity: Biomolecule chart • Assessment: Place novel example on chart				X		X	X				X
• Activity: Macromolecules Lab (McMush lab, identifying unknown using chemical tests) • Assessment: Lab Summary				X	X	X	X				X
Free Energy, Thermodynamics • Activity: Labeling Gibbs in context						X			X		
• Enzyme Activity Lab • Assessment: Written Lab Summary		X	X	X	X	X	X				X

Unit 2: Cells											
Cell Structures • Activity: Cell S/Function Manipulative	X					X	X		X	X	X
Cell Membrane • Modeling the cell membrane group work • Assessment: Model rubric			X				X				
Passive Transport • Activity: Homeostasis predictions	X	X	X			X			X		
Activity: Diffusion and Osmosis Lab	X	X	X	X	X		X				
Activity: Active Transport Discussion of performance objectives	X								X		X
Cell Signaling Discussion • Concept mapping activity						X	X				
Unit 3: Cellular Respiration • Sequencing activity											
Energy, ATP, Overview • Mind streaming strategy on overview image						X			X		
Mitochondrial • Structure, Function Adaptations Discussion	X		X			X		X	X		
Redox Reactions, Glycolysis • Activity: Web interactive	X		X			X			X		
Citric Acid Cycle, Fermentation • Assessment: Free Response writing	X		X			X		X	X		
Cellular Respiration Lab Assessment: Lab report	X	X	X	X	X	X	X		X		
Unit 4: Photosynthesis											
Overview, Chloroplast Structure • Activity: Construction hierarchy of structure	X		X			X			X		

Light Reactions Discussion • Activity: Modeling Light reactions	X		X			X			X		
Light Independent Reactions • Assessment: Short answer writing	X		X			X			X		
Photosynthesis Open Inquiry • Assessment: Mini poster	X		X			X			X		
Evolutionary Adaptations • Activity: Comparative leaf anatomy table	X		X			X			X		
Unit 5: DNA											
Discovery of DNA Discussion • Activity: Mini Lab • Assessment: Quick Write	X			X		X				X	
Structure of Nucleic Acids • Activity: DNA Manipulative	X			X		X				X	
Replication Video • Assessment: Write summarizing statements	X			X		X				X	X
Genetic Engineering Topical Discussion/Pros & Cons presentations: *Who Owns Your DNA*						X				X	
Electrophoresis Lab						X				X	
Unit 6: Cell Division											
Review Replication	X			X		X				X	
Cell Cycle • Activity: Manipulative	X					X				X	
• Cancer Issue Discussion: *How can understanding the cell cycle help fight cancer?*	X					X				X	
Control of Cell Cycle • In class guided reading activity	X					X				X	X
Meiosis and Gamete Formation • Assessment: Free Response writing					X	X	X			X	
Mitosis and Meiosis Lab Parts 1, 2, 4					X	X				X	
Unit 7: Protein Synthesis											

Review Nucleic Acids • Activity: Manipulative • Assessment: Performance based	X					X				X	
Protein Synthesis Overview	X					X	X			X	
Transcription • Activity: Interactive	X					X				X	X
Translation • Activity: Mapping the process	X					X				X	
Operons • Activity: Manipulative • Assessment: Performance based	X					X				X	
Regulation of Gene Expression • Assessment: Free Response writing	X					X				X	X
Mitosis and Meiosis Lab, part 3	X					X				X	
Unit 8: Genetics											
Mendelian Genetics • Activity: Practice Problems	X						X			X	
Incomplete, Codominance • Activity: Practice Problems	X					X	X			X	
Multiple Alleles, Epigenetics	X					X	X			X	
Sex-Linked, Pedigrees • Activity: Practice Problems	X					X	X			X	
Genetic Disorders & Mutations • In class guided reading activity	X		X			X	X				
Environmental Factors • Assessment: Free Response writing	X					X	X				X
Genetics of Corn Lab & Chi Square Analysis	X	X					X				
Unit 9: Mechanics of Evolution											
Natural Selection • Activity: Interactive		X			X	X	X	X			
Mechanisms of Variation						X	X	X			
Hardy-Weinberg Equilibrium • Activity: Practicing H/W	X	X			X			X			

Effects of Variation on Populations • In class guided reading activity		X			X	X		X		X	X
Genetic Drift, Gene Flow, Gene Duplication	X	X				X		X		X	X
Antibiotic Resistance Issue Discussion *How are you contributing to the process?*								X		X	
Evidence for Evolution • Activity: Manipulative • Assessment: Performance based				X	X	X		X			
Mathematical Modeling Lab	X	X			X			X		X	X
Unit 10: Evolutionary Relatedness											
The Origin of Life	X		X	X		X		X			
The History of Life on Earth • Sequencing activity					X			X			
Relatedness of Domains			X			X	X	X			
Speciation				X	X	X	X	X			
Phylogenetic Trees	X	X	X	X	X		X	X			
Evolution Continues • In class guided reading activity	X				X			X			
Comparing DNA Sequences • Assessment: Free Response writing	X	X	X	X	X	X	X	X			
Unit 11: Development & Specialization											
Meiosis Review • Activity: Manipulative • Assessment: Performance based					X	X	X		X	X	
Reproduction, Fertilization						X		X	X		
Development & Specialization • Issue Discussion *Is stem cell research worthwhile?*	X		X			X	X		X		
Organ Systems	X										X
Digestion	X		X			X	X		X		X
Tissues Lab	X					X					X
Unit 12: Regulation											

Thermoregulation • Activity: In class guided reading					X	X	X		X		
Epinephrine and Signaling Pathways	X						X			X	
Insulin Regulation and Diabetes	X					X			X	X	
Regulation of Signaling Pathways • Activity: Modeling Hormones	X					X	X			X	
Bacterial Transformation Lab						X				X	
Temperature Regulation in Fish • Assessment: Free Response writing					X	X	X		X		
Unit 13: Nervous System											
Structure of the Nervous System • Activity: Mini Lab • Activity: Diagram	X					X	X	X		X	
Action Potentials • Activity: Interactive	X					X	X			X	
Nervous Control of Muscles • Activity: Sequencing	X		X			X				X	X
Innate Behaviors • Activity: T-chart comparison	X				X	X	X		X		
Learned Behaviors • Assessment: Free Response writing	X				X	X	X		X		
Behavior of Pill Bug Lab	X				X	X	X		X		
Unit 14: Immune System											
Viruses & Viral Replication • Activity: Venn Diagram	X					X				X	
Innate Immunity • Activity: Manipulative • Assessment: Performance based	X								X		
Acquired Immunity	X								X		
Major Histocompatibility Complex • Activity: POGIL	X					X					X
T Cells • Assessment: Free Response writing	X					X				X	

Lab: Modeling the Specific Immune R	X								X	X	X
Unit 15: Plants											
Plant Anatomy & Reproduction • Activity: Mini Lab	X		X			X					X
Plant Life Cycle	X					X	X		X		
Responses to the Environment				X	X	X	X		X		
Transpiration • Assessment: Free Response writing						X	X		X		
Transpiration Lab						X	X		X		
Unit 16: Ecology											
Populations					X	X	X		X		X
Population Density and Growth Curves • Activity: POGIL	X		X	X	X		X		X		
Communities • Activity: Math of Demography Stations	X	X	X	X	X		X		X		X
Relationships (Pred-Prey) • Activity: Manipulative • Assessment: Performance based	X	X	X	X	X		X		X		X
Food Webs, Chains, Energy Pyramids	X	X				X					X
Trophic Levels • Activity: POGIL	X		X	X	X	X	X		X		
Carbon, Nitrogen Cycles • Assessment: Free Response writing	X			X					X		
Human Impact Issue Discussion: *What footprint are you leaving?*	X					X			X		X
Dissolved Oxygen Lab		X	X	X	X	X	X				

AP Biology Scope and Sequence 2014-2015

6 Weeks	Unit Identifier	Unit Topic With Enduring Understandings (EU)	Essential Knowledge and Learning Objectives	Approximate Number of Days	Focal Lab Activities (Bold = AP Investigative Lab)
1st 6 WKS 30 Days	APB1.1	Biochemistry EU 2A, 4A, 4B	2A.1 a, b — LO 2.1 2A.3 a-3 — LO 2.8 4A.1 — LO 4.1, 4.2, 4.3 4B.1 — LO 4.17	14 days	**Lab: Enzyme Activity (4 days)** Biochemistry Lab (1 day)
	APB1.2	Cells EU 2A, 2B, 2E, 3D, 4	2A.3 b — LO 2.6, 2.7 2B.1, 2, 3 — LO 2.10 - 2.14 2E.2 c — LO 2.36, 2.37 3D.1 a-c — LO 3.31 4A.2 — LO 4.4, 4.5, 4.6	11 days	**Lab: Diffusion and Osmosis (4 days)**
2nd 6 WKS 24 days	APB2.1	Cellular Respiration EU 2A	2A.1 c — LO 2.1 2A.2 a- c, f-g — LO 2.4, 2.5	8 days	**Lab: Cellular Respiration (3 days)*with lab report reqrd**
	APB2.2	Photosynthesis EU 2A	2A.1 c — LO 2.1 2A.2 a, d, e — LO 2.4, 2.5	7 days	**Lab: Photosynthesis (3 days) * lab report reqrd**
	APB2.3	DNA EU 3A	3A.1 a.1-5 — LO 3.1, 3.2, 3.3 3A.1 b.1-3 3A.1 e — LO 3.5	7 days	**Lab: Restriction Enzyme Analysis of DNA (2 days)**
3rd 6 WKs 27 days	APB3.1	Cell Division EU 3A	3A.2 a, b, c — LO 3.7-11	7 days	**Lab: Cell Division 1,2,4 (3 days)**
	APS3.2	Protein Synthesis EU 3A, 3B, 3C	3A.1 b, c — LO3.4, 3.6 3B.1 a, c — LO 3.19, 3.20 3B.2 a, b — LO 3.22, 3.2 3C.1 a — LO 3.25	8 days	**Lab: Cell Division part 3 (1 day)**
	APB3.3	Genetics EU 3A, 3C, 4C	3A.3 — LO 3.12-14 3A.4 a, b — LO 3.15-17 3C.1 c — LO 3.26 4C.2 — LO 4.23, 4.24	10 days	Lab: Genetics of Corn (2 days)

			Midterm Exams and Review Days	9 days	
4th Six Weeks 28 Days	APB4.1	Mechanics of Evolution EU 1A, 3C, 4C	1A.1, 2, 3 LO 1.1 – 1.8 1A.4 a, b-1, 2, 3 LO 1.9 – 12 3C.1 b, d LO 3.24, 3.26 3C.2 LO 3.27, 3.28 4C.1 b LO 4.22 4C.3 LO 4.25, 4.26	11 days	Lab 8: Hardy-Weinberg Theorem (2 days) **Mathematical Modeling H/W (2 day)**
	APB4.2	Evolutionary Relatedness 1A, 1B, 1C, 1D	1A.4 b-4 LO 1.11-13 1B.1 LO 1.14-16 1B.2 LO 1.17-19 1C.1, 2, 3 LO 1.20-26 1D.1, 2 LO 1.2-33	10 days	**Lab: Comparing DNA Sequences (3 days)** ENSI Shells Lab (1 day) Lab: Cytochrome C (1 day)
	APB4.3	Development & Specialization EU 2A, 2D, 2E, 3A, 4A, 4B	2A.1 d-2, 4, 5 LO 2.2, 2.3 2D.2 b LO 2.27 2E.1 except b-3 LO 2.32-34 3A.2 c (review) LO 3.9 -3.11 3A.4 c LO 3.15 4A.3 LO 4.7 4A.4 a LO 4.8-4.10 4B.2 LO 4.18	7 days	Lab: Tissues (1 day) Lab: Systems Comparison (1 day) Lab: Embryology (1 day)
5th Six Weeks 34 days	APB5.1	Regulation EU 2A, 2C, 2D, 3A, 3B, 3D	2A.1 d-1, 3 LO 2.2 2C.1 LO 2.15-17 2.20 2C.2 LO 2.21 2D.2 a, c LO 2.25- 2.27 3A.1 e, f LO 3.5 3B.1 b, d LO 3.18 – 3.21 3D.1 d LO 3.31, 3.33 3D.2 c LO 3.34, 3.35 3D.3 LO 3.36 3D.4 LO 3.373.2E38-9	11 days	**Lab: Bacterial Transformation (3 days) Lab report rqrd** Lab: Temperature Regulation in Fish (1 day)
	APB5.2	Immune System EU 2D, 3A, 3C, 3D, 4C	2D.3 a LO 2.28 2D.4 LO 2.29, 2.30 3A.1 a-6 LO 3.1 3C.3 LO 3.29, 3.30 3D.2 a LO 3.34, 3.35 4C.1 a LO 4.22	7 days	

	APB5.3	Nervous System EU 2E, 3D, 3E, 4A	2E.2 b LO 2.36, 2.37 2E.3 a, b-3 LO 2.38- 2.40 3D.2 b LO 3.34, 3.35 3D.4 LO 3.39 3E.1 LO 3.40- 3.42 3E.2 LO 3.43- 3.50 4A.4 b LO 4.8- 4.10	10 days	**Lab: Pill Bug Behavior (3 days) Lab report reqrd** Lab:Reflexes (1 day)
6th Six Weeks 34 days	APB6.1	Plants EU 2A, 2C, 2E, 4A	2A.3 b-1 LO 2.7 2C.1 a, b LO 2.16, 2.18-20 2E.1 b-3 LO 2.31- 2.33 2E.2 a LO 2.35-37 2E.3 b-1, 2 LO 2.38 –2.40 4A.4 LO 4.8, 4.9. 4.10	8 days	**Lab: Transpiration (3 days)** Lab: Plant Systems (1 day)
			State and district Testing	5 days	
	APB6.2	Ecology EU 2A, 2D, 2E, 4A, 4B, 4C	2A.1 e, f LO 2.3 2A.3 a-1, 2 LO 2.8, 2.9 2D.1 LO 2.22- 2.24 2D.3 b LO 2.28 2E.3 b-4 LO 2.38-,2.40 4A.5, 6 LO 4.11-4.16 4B.3, 4 LO 4.19 – 4.21 4C.4 LO 4.27	10 days	Lab: Dissolved Oxygen (3 days)
			Review, AP Exams and Campus Final Exams	20 Days	

The AP Examination: May, 2015

The curriculum of AP Chemistry prepares students to perform well on the AP exam given in May. Thousands of four-year universities grant credit for qualifying scores on the AP exam. "A qualifying score represents a level of achievement equivalent to that of students who have taken a comparable college course… While colleges and universities are responsible for setting their own credit and placement policies, AP scores signify how qualified students are to receive college credit or placement:

AP Score	Qualification
5	Extremely Well Qualified
4	Well Qualified
3	Qualified
2	Possibly Qualified
1	No Recommendation

- AP Exam scores of 5 are equivalent to A grades in the corresponding college course. AP Exam scores of 4 are equivalent to grades of A–, B+ and B in college. AP Exam scores of 3 are equivalent to grades of B–, C+ and C in college." (The College Board, *AP Chemistry Course Description,* p. 2).

- All students are expected to take the exam in May of 2013. The College Board website (http://www.collegeboard.com) is an excellent resource for students and families to familiarize themselves with the exam and requirements. Students who do not take the AP exam will NOT earn extra grade credit.

Classwork and Homework

A laboratory notebook will be given to each student. The laboratory notebooks will keep all formal lab reports. The students are responsible for keeping this notebook available to show any requesting college evidence of their laboratory experience. All Notebooks will be graded at the end of each laboratory. Preludes will be graded every week. All worksheets, student notes and lab sheets are expected to be in binder at all times if not collected. Binders will be checked and graded periodically. Homework is checked and reviewed in the beginning of class.

Assessment

Students will have frequent quizzes. In order to provide feedback to students as quickly as possible, there will be no makeup for quizzes once the quizzes have been returned to the students. In order to accommodate a reasonable number of excused absences, students will be allowed to drop two quiz grades per semester. Additional quizzes may be excused for individual students with special circumstances at the discretion of the instructor. There will be at least one major exam during 6 week grading period. Students who are absent on the day of the exam will be expected to make up the exam on their first day returning to class. Students will be able to complete test corrections to earn a % of the points back. All test corrections will be due 1 week after the quiz/test is passed back.

Grading

The final grade in chemistry will be determined by the following which follows the school's grading policy:

- Assessments (All tests and quizzes) : 30%
- Class Work (Preludes, Notes, Worksheets and class participation) : 50%
- Projects and Labs : 20%

Make-up work

Late work will be accepted but will receive a 50% maximum grade. Work due on the day of an excused absence must be turned in the following day to receive full credit.

Extra Credit

Students often ask for extra credit opportunities in order to raise their grades. Some extra credit work will be available throughout the year. Options will be discussed at a later date. *Students must have all required assignments completed before working on extra credit.*

Technology

Students are expected to use the internet regularly in class and at home for research. Students who demonstrate the responsible use of the school's computers, will have a computer available to them at school for use. Students who do not demonstrate the ability to check out a laptop for personal use will still be responsible assignments.

According to the GPA electronic device policy, all personal technology (mp3 players, mobile phones, personal gaming devices) MUST remain off for the full duration of class.

GPA Academic Integrity Policy

The GPA Academic integrity Policy states that "Honest behavior is an expectation for all students at GPA." Our goal is to create and maintain an ethical academic atmosphere. Acts of academic dishonesty that will not be tolerated at GPA are listed below

- Cheating on any classroom assignment, test, or quiz
- Plagiarism (Copying someone else's work)
- Theft or alteration of materials
- Unauthorized collaboration
- Unauthorized use of electronic devices

Students found in violation of GPA's Academic Integrity Policy will be disciplined appropriately. Consequences of offenses may include but are not limited to, teacher or after school detention, lowering of academic or citizenship grade, yellow/ red card documentation, suspensions/exclusion from extracurricular activities. School staff may also decline to write a letter of recommendation or report it in a letter. School staff may also rescind a recommendation after it has been sent.