

# Biology

*“You cannot teach a person anything; you can only help them find it within themselves.” – Galileo Galilei*

**Instructor:** Alfredo Barrio  
**Email/Twitter:** [fbarrio@paparts.org](mailto:fbarrio@paparts.org)

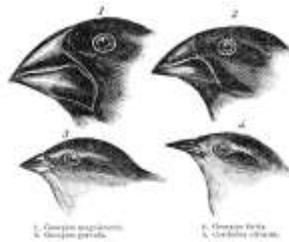
**Classroom:** 10  
**Prep:** 6th period

## COURSE DESCRIPTION

**Biology** is the study of life. Through this course you will discover concepts that unify all living things. We will apply science and engineering practices, develop an understanding of genetics, ecology and evolution.

## GOOGLE CLASSROOM

**Login:** PAPA E-mail  
**Password:** Student ID Number



## UNITS OF STUDY

In this class, we will be following the recommended secondary course map as suggested by the New Mexico Public Education Department (NMPED). Below is a link to the course map. Following the hyperlink in order to read a more in depth analysis of each standard.

## [Recommended Secondary Course Map: Biology](#)

### Fall Semester

#### **Nature of Science**

Topics: Scientific thinking and practices, laboratory safety, engineering and design solution.

#### **Cytology**

Topics: Cell Theory, Mitosis and Meiosis, DNA and RNA, Photosynthesis and Cellular Respiration; Homeostasis

#### **Genetics**

Topics: Central Dogma of Biology, Protein Synthesis, Karyotyping, Genetic Mutations, Punnett Squares, Pedigree Charts.

### Spring Semester

#### **Ecology**

Topics: What is Ecology, Symbiosis, Predator-Prey Cycles, Food chains and Food webs, Abiotic and Biotic factors, Biodiversity. Biogeochemical Cycles.

#### **Evolution**

Topics: Natural Selection, Phylogeny, Adaptations and Speciation

#### **Earth and Human Activities**

Topics: Biodiversity and Human Impact on Earth's Systems.

## MATERIALS

Pens (Blue or Black)  
Binder and Dividers

Pencils  
Sticky Notes

Scientific Calculator (optional; but highly encouraged)

Highlighter

## EXPECTATIONS

- I expect that you earn HIGH GRADES THROUGH STUDYING**
  - A = study and review notes for 20 minutes per night
  - B = study and review notes for 15 minutes per night
  - C = study and review notes for 10 minutes per night
  - D = study and review notes for 5 minutes per night
  - F = less than 5 minutes per night
- What should you expect when you ask me a question?** I generally will not answer your questions directly but will help guide you to answer your own questions.
- I expect you TO THINK CRITICALLY during the course of this class!**
- I expect that NO FOOD OR DRINK (EXCEPT WATER) will be brought to class.**
- I expect to EARN your respect and that you'll EARN mine. The Golden Rule.**
- I expect you to be ON-TIME for class.**
- I expect to have your attention while teaching.** Anyone who distracts others OR me is a disruption to the educational process and will receive a verbal warning.. Subsequent disturbances will result in a referral to the office and or a parent-teacher conference.
- I expect that you'll keep your hands off of EVERYTHING in my classroom that's not yours unless you are given permission to use/handle a particular item.**
- I expect you to only use the COMPUTERS for assignments that are pertinent to this class.**
- I expect you to turn your phone off. You will not succeed in this class if you are not paying attention.**
- I expect that you'll follow the lab safety procedures. Anyone who doesn't will not be allowed to participate in lab.**



## GRADING

Grades will be based on points accumulated in the following areas: summative assignments (written conceptual assignments, practice problems, etc) and summative assessments (tests and quizzes). Test and Quiz corrections are allowed.

**Test and Quiz corrections involve:**

1. Stating the original question.
2. The correct response
3. Evidence that supports the correct answer (either from notes, discussions etc.)

<b>.90-1.00</b>	<b>A</b>
<b>.89-.80</b>	<b>B</b>
<b>.79-.70</b>	<b>C</b>
<b>.69-.60</b>	<b>D</b>
<b>.59-0</b>	<b>F</b>

**To calculate grade:**

$$\frac{\textit{Points Earned}}{\textit{Total Points Possible}}$$

**Ex: (90)/(100)= .9**



## ATTENDANCE/ MAKE-UP WORK

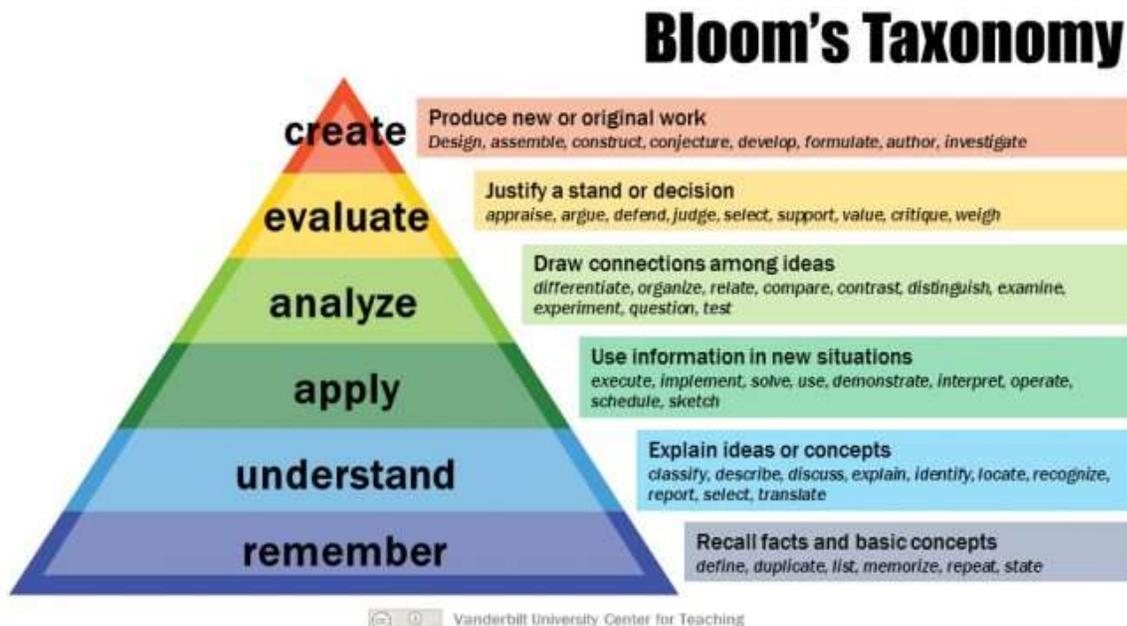
If you are absent, you are responsible for making up the work promptly. You have 2 days for every day absent. Make arrangements with me to make up tests and labs before or after school or possibly during 8th period. Make every effort to meet deadlines. Grades are updated in the computer regularly so you can keep up with your average and missing assignments (PowerSchool). Be sure to check the class website for assignments, quizzes, exams and other materials you may need.

## HIGH SCHOOL COMMITMENT

High school classes have been designed to challenge students with a curriculum that will prepare you for college or adult life. How well you do in high school will determine the opportunities that are made available to you. Learn to build bridges rather than burn them. As a young adult, you will be expected to take on more responsibilities and be more self-sufficient. This class is no different, in order to succeed you must try and above all advocate for yourself. I tend to be more helpful to those who put in honest work. Show, don't tell me you want to succeed. It is my hope that you will leave high school as a well rounded adult who will be prepared to face the world head on.

## Bloom's Taxonomy

In one sentence, Bloom's Taxonomy is a hierarchical ordering of cognitive skills that can, among countless other uses, help teachers teach and students learn. In this class we will explore each level of Bloom's taxonomy to help develop our understanding of the concepts discussed in this class.

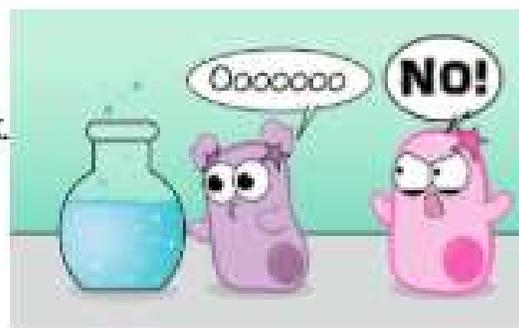




# Lab Safety Contract

## General Lab Procedures:

1. Follow all written and verbal instructions fully.
2. Do not touch any lab materials prior to being instructed to do so.
3. Read each lab in its entirety before starting any work.
4. Dress appropriately and maintain a clean station.
5. No horseplay
6. No food or drink permitted during labs
7. Never eat, drink, sniff, or apply any lab materials unless expressly instructed to do so.
8. Be knowledgeable of what to do if an accident occurs.
9. All lab stations are expected to be reset for the next group.



## Before the Lab

- ★ Long Hair must be tied back and/or secured away from face
- ★ No loose hanging clothing or jewelry
- ★ Wear closed-toe shoes
- ★ When appropriate wear safety goggles and/or other protective gear
- ★ Only necessary materials should be at lab stations

## In case of an emergency

- ★ Remove self and others away from space if necessary
- ★ Alert teacher immediately
- ★ Be knowledgeable of classroom fire drill policy and procedure
- ★ Assist teacher only as instructed

## Consequences

- ★ First Offense: Student will be given a warning to cease and desist infraction.
- ★ Second Offense: Student will be removed from lab and will forfeit all points. Parent(s)/guardian will be contacted.
- ★ Students who are removed from more than one lab will be placed on probation and will not be allowed to participate in labs until the teacher deems appropriate. Parent(s)/guardian and administration will be contacted.
- ★ All consequences will be based on severity of infraction.



## Technology Contract

- *I will only use my phone after obtaining permission from my teacher.*
- *I will use all forms of technology only when accessing course materials and agree to abide by school policies when making any posts.*
- *I will refrain from using websites such as wikipedia.com and info.com when completing research.*
- *I will provide citations for any and all accessed information.*

**I understand that if I use my technology in non-learning mode, while in class, the consequences are as follows:**

- *On the first offense, the student will be given a warning.*
- *On the second offense, the phone will be confiscated for the duration of class.*
- *On the third offense, the phone will be confiscated and sent to the office until a parent/guardian picks it up.*
- *Any further offenses will be handled through the office.*

**I understand that if I choose to post materials or comments that do not follow school policy, I am subject to the consequences laid out in the student handbook.**

**Failure to provide accurate and complete citations will result in a 0 for the assignment on the first offense. Any further offences will be**

handled at the discretion of the administration. All occurrences will result in parent contact.

### Syllabus and Lab Safety/Technology Contract

*Please read the following statements with your student. Initial along with your student after reading each statement.*

\_\_\_\_ \_\_\_\_ I have read and fully understand the class syllabus.

\_\_\_\_ \_\_\_\_ I have read and fully understand the lab safety rules and consequences.

\_\_\_\_ \_\_\_\_ I have accessed the classroom website and know how to locate needed information.

\_\_\_\_ \_\_\_\_ I understand that if I use my technology in non-learning mode, while in class, the consequences are as follows:

- On the first offense, the student will be given a warning.
- On the second offense, the phone will be confiscated for the duration of class.
- On the third offense, the phone will be confiscated and sent to the office until a parent/guardian picks it up.
- Any further offenses will be handled through the office.

\_\_\_\_ \_\_\_\_ I understand that anything that I post on any of our class/ school online platforms must follow the school's rules of conduct.

\_\_\_\_ \_\_\_\_ I understand that returning this signed form, on-time, counts as my first quiz grade for the year and the student will be barred from science investigations until the signed contract is returned.

Student Name Printed: \_\_\_\_\_

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

Parent Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent email: \_\_\_\_\_