



Biology Syllabus 2009-2010 Mrs. Renner

Contact Information:

Email: trenner@immaculateheart.org

Room: SB-5

Office Hours: To be announced and posted in the classroom.

Course Description

Welcome to BIOLOGY!!! Biology is the study of life. The purpose of this class is to bring understanding and appreciation for the great diversity of life on Earth. Also, to help you understand yourself...you are a biological organism. Biology is an exciting, but challenging subject filled with complex principles and difficult vocabulary. My goal is to present this information to you clearly and logically, and to create a positive, productive, learning environment for everyone. This is a laboratory course where you will be participating in many labs, using microscopes and working with living/deceased organisms. Lab experience is essential in order to develop our skills as scientific thinkers, and experimental scientists. Cooperation, enthusiasm and growth will guide us to discover the amazing world of biological science

Biology Topics (in no particular order):

First Semester:

Bio Basics/Scientific Method (Chapter 1)
Cells (Chapter 7)
Transport (Chapter 7)
Photosynthesis (Chapter 8)
Cellular Respiration (Chapter 8)
Cell Reproduction (Chapters 9, 10)
DNA, RNA and Protein Synthesis (Chapter 12)
Mendelian Genetics (Chapters 10, 11)

Second Semester:

Mutations (Chapters 11, 12)
Viruses and Bacteria (Chapters 17, 18) Cellular
Evolution (Chapters 14, 15, 16)
Invertebrates (Chapter 25)
Vertebrates (Chapters 28, 29, 30)
Ecology (Chapters 2, 3, 4)

Required Materials

Composition Notebook
Textbook: Biology (Glencoe Science)
Colored Pencils
Writing utensils (Pen and Pencil)
Single hole punch

Glue Stick
Ruler
3 X 5 index cards (cut in half)
2 inch Flashcard ring

BIOLOGY BENCHMARKS:

Upon completion of the Biology course, students will know that:

1. Fundamental life processes of plants and animals depend on a variety of chemical reactions that are carried out in specialized areas of the organism's cells.
2. Mutation and sexual reproductions lead to genetic variation in a population.
3. Multi-cellular organism develops from a single zygote, and its phenotype depends on its genotype, which is established at fertilization.
4. Genes are a set of instructions, encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism.
5. Genetic composition of cells can be altered by incorporation of exogenous DNA into the cells.
6. Stability in an ecosystem is a balance between competing effects.
7. The frequency of an allele in a gene pool of a population depends on many factors, and may be stable or unstable over time.
8. Evolution is the result of genetic changes that occur in constantly changing environments.
9. As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic), despite changes in the outside environment.
10. Organisms have a variety of mechanisms to combat disease.

Class Requirements

Interactive Notebook

The most important aspect of this class is maintaining an absolutely beautiful, detailed and high quality interactive science notebook. This notebook is to be kept in a composition book (NO OTHER TYPE OF NOTEBOOK IS ACCEPTABLE). You will keep a table of contents and each page will be formatted in an input/output format, which corresponds with the functioning of the left and right hemispheres of the brain....much more on this as you learn about and use your notebook. Notebooks can be collected at anytime and you must keep up with your notebook on a daily basis.

Homework

Most (but not all) homework will be done in the interactive notebook. You will be assigned homework every night (with a few excused nights here and there throughout the academic year). During the "Warm Up" assignment I will check your homework and you will earn stamps in the table of contents of your notebook. Please be aware that I will randomly check homework...so be ready every day!!!

Exams and quizzes

Exams will be given at the end of each unit. Also, smaller quizzes will be given periodically throughout the unit. It is your responsibility to be present the day of the exam. If you are going to be absent you must make arrangements with me to take the test early. If there is an emergency and you are absent then you must take the exam the day you return. A comprehensive final exam will be given at the end of each semester.

Labs/Lab Reports



This is a laboratory science and you will participate in many labs throughout the school year. Some labs will be done in your interactive notebook and others will be done on lab sheets. In addition, some labs will require you to write a detailed lab report...following the scientific method and discussing the implications of your results in relation to the topic we are studying. Lab reports are to be typed and can be submitted electronically...more info on how to do this later. There will be a very specific format to follow when writing your lab reports; consistency and attention to detail will be of the utmost importance!

Lab safety rules **MUST** be followed at all times...a safety contract will be reviewed and signed prior to participation in any labs. Your parents will be required to sign the contract as well.

Flashcard Ring

In this class there are many difficult vocabulary words for you to master. In order to help you with this task, you will be required to keep a flashcard ring with all the vocabulary words and definition for the entire semester. You are to use 3 X 5 index cards cut in half and hole punched in the left hand corner. Each card must also contain your initials written neatly in the right hand corner. On the front of the card you will write the assigned word and on the back of the card you write the definition. We will keep an ongoing list in the classroom for you to maintain a thorough vocab flashcard ring that represents ALL words studied throughout the entire semester.

Projects

There will be projects assigned throughout each semester. Specific directions, expectations and grading rubrics will be provided as each project is assigned.

Grading

You will be graded on weighted system, as follows:

Interactive Notebook: 35%

Exams: 30%

Projects: 10%

Guided practice*: 15%

Final Exam: 10%

*Guided practice includes assignments used to help you understand the concepts with assistance (guidance) from me and/or classmates. Assignments in this category include class work, some homework, flash cards, class activities, class participation and group/partner work.

Scale: Grades will be calculated on the scale that is set forth in the student handbook

Classroom Procedures: BE KIND AND SUPPORTIVE!!!

1. Be in your seat **silently** working on the Warm Up when class begins.
2. Raise your hand! And never speak while others are speaking!
3. After an absence visit the "Missed Work" area
4. You may use the bathroom/visit your locker 3 times per semester ONLY...use your passes wisely.
5. Follow the rules at the sharpening area (ask permission, sharpen politely, clean up)
6. At the end of class: You will be dismissed by me (clean table / sit quietly)
7. FOLLOW ALL SCHOOL RULES.

Student Responsibilities

1. Spread positive energy by smiling, helping others, respecting the process of learning, taking care of classroom materials, participating in all class activities, and never speaking when others are speaking.
2. Participate professionally, productively and safely in lab
3. Bring your supplies EVERYDAY
4. Speak in academic/professional language
5. Maintain a detailed, reflective and creative interactive notebook.
6. Activate your neurons (Brain Cells) by always thinking about what you are learning...make connections!
7. Complete your assignments on time.
8. Study for exams and quizzes
9. Help others understand by explaining concepts and directions to those around you.
10. After an absence: visit "Missed Work" section and make up work immediately.
11. Missed a quiz?...make it up or receive a zero
12. COME SEE ME WHENEVER YOU NEED EXTRA HELP!

School Policies

All school policies will be strictly enforced...please refer to your student handbook to review the policies. Play close attention to the honesty/plagiarism policy: Absolutely NO copying, cheating or dishonest acts will be tolerated!

NOTE: I reserve the right to make any changes to this syllabus at any time ☺

Dear Parent,

It is my pleasure to be your daughter's science instructor this academic year. I am a dedicated and enthusiastic educator who will support her academic development. Please feel free to contact me anytime to discuss her progress. Also, please utilize the online grade check system see how she is doing periodically. Thank you in advance for your support, as together we prepare your daughter for success!

Sincerely,

Tara Renner, M.Ed.

trenner@immaculateheart.org

PARENT/STUDENT ACKNOWLEDGEMENT:

We, _____ (print student name) and _____ (print parent/guardian name) have read and acknowledge the rules and guidelines set forth in the Biology syllabus.

Student signature: _____ Date: _____

Parent/Guardian signature: _____ Date: _____

Parent Contact information:

Daytime Contact Number(s): _____

Evening Contact Number(s): _____

Email Address(s): _____

When is the best time to contact you in regards to your daughter's progress?

Comments or questions?

