



Biology Syllabus 2010-2011 Mrs. Renner

Contact Information:

Email: trenner@immaculateheart.org

Room: SB-5

Office Hours: Tuesday and Thursday mornings before school

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

First Semester:

Bio Basics/Scientific Method (Chapter 1)
Biological Molecules and Nutrition (Chapter 6 and 35.2)
Cells (Chapter 7)
Protists (Chapter 19)
Viruses, Bacteria & Immunity (Chapters 17, 18, and 37)
Cellular Energy (Chapter 8)
Cell Reproduction (Chapters 9, 10)
Mendelian Genetics (Chapters 10, 11)

Second Semester:

DNA, RNA and Protein Synthesis (Chapter 12 and 13)
Evolution (Chapters 14, 15, 16)
Taxonomy (Chapter 17)
Plants and Fungi (Chapter 20 - 23)
Invertebrates (Chapter 24-27)
Vertebrates (Chapters 28 -30)
Ecology and Conservation (Chapters 2 - 5)

Required Materials

Composition Notebook
Textbook: Biology (Glencoe Science)
Colored Pencils
Colored pens
2 inch Flashcard ring

Glue Stick
3 X 5 index cards (cut in half)
highlighters
Book: Silent Spring by Rachel Carson
Single hole punch

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. 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, weekly quizzes will be given every Tuesday on the material learned the previous week. There are NO MAKE UPS on quizzes...however I will drop your lowest quiz grade, It is your responsibility to be present the day of an exam or quiz. 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. Your vocab flashcard ring will represent 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.

Scientific Reading: Silent Spring

Throughout the year we will read Silent Spring by Rachel Carson. There will be a specific assignment you must complete for the book due during the spring semester. The assignment will include an author biography, summary and reflections of each chapter, a historical analysis of the books and its influence on environmental law/regulations in the United States. More details will be presented to you in class.

Grading

Interactive Notebook: 20%

Exams and weekly quizzes: 40%

Projects and Silent Spring: 10%

Guided practice*: 10%

Final Exam: 20%

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

*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.

Classroom Procedures

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 pick up hand outs/glue-ins from the bin in the back of the classroom.
4. Take care of classroom materials and keep desk boxes immaculate!!!
5. At the end of class: You will be dismissed by me (clean table / sit quietly)

Student Responsibilities

Classroom Rules

1. Be attentive and alert in class.
2. Be respectful to others.
3. Speak in academic/professional language
4. Maintain a detailed, reflective and creative interactive notebook.
5. Complete your assignments on time.
6. Study for exams and quizzes
7. Be helpful to your classmates.
8. You may not eat, chew gum, or drink anything other than water in class. You may not have food in class.
9. You are allowed three bathroom passes per semester. BATHROOM PASSES ARE NON-TRANSFERABLE.
10. Follow all school rules.

Absences & Make-up work

- When you are absent, IT IS YOUR RESPONSIBILITY to get the notes from a classmate in a timely fashion and for staying on top of the material. Your interactive notebook must be updated (both input and output) no later than ONE DAY after you return from an absence. In the event of an extended absence (more than three days) you may see me upon your return to discuss extending this deadline.
- Make-up tests (in the event you are absent on the day of a test) are given on Tuesdays before school and Thursdays at lunch. You will need to make arrangements to take the test at one of these times, and let me know in advance when you will be doing the make-up.
- Quizzes cannot be made up. However I will drop one quiz grade at the end of the semester.
- If you are absent on the day I check notecards, the notecards are due on the day you get back. It is your responsibility to show them to me that day, or you will receive a zero on the assignment.

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! In addition, there is ZERO TOLERANCE for cell phone/electronic device usage in the classroom.

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 net classroom to see how she is doing periodically. Also, please check my webpage to see your daughters assignments. 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): _____

Comments or questions?
