

Biology Syllabus 2009-2010

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Click on **High School, Academics**, then **Regina Brunker** for my information, syllabus and calendars.

Textbook: *Biology*. Holt, Rinehart, and Winston. 2006

Course Description: Biology is devoted to the study of living things and their processes. Throughout the year this course provides an opportunity for students to develop scientific process skills, laboratory techniques, and an understanding of the fundamental principles of living organisms. Students will explore biological science as a process, cell structure and function, genetics and heredity, evolution and classification, diversity of living organisms and their ecological roles, and an introduction to animal structure and function. An end of course test (EOI) will be administered in May, which covers objectives for both semesters.

Objectives/Goals:

- Teach students practical scientific skills, which they can use to investigate, study and explain the world around them.
- Give students a deeper understanding of how biology impacts their daily lives.
- For each student to achieve the Oklahoma PASS Standards for High School Biology.
- To encourage the spirit of scientific investigation and with it the attitudes of accuracy in thought and work.

Grading:

- Each quarter grade will consist of 60% Daily and 40% Test grades. Tests may include chapter exams, lab exams, and major projects. Daily work may include class work, homework, quizzes, labs, activities, and participation.
- Laboratories--laboratories are a mandatory part of this class. Laboratory reports are required on some labs.
- Major Projects --research projects may be assigned throughout the year. Each project will include a handout of details, expectations, and grading.
- Semester examination--the semester exam in this class is cumulative in content, and counts as a test grade.

Supplies:

- Notebook or Folder to keep assignments organized.
- Lined notebook paper
- Pen or pencil
- Paper Towels

Class Policies:

- Late Homework - Late homework is not accepted.
- I will drop two low daily grades each nine-week period.
- Makeup Work
 - If you are absent it is your responsibility to obtain any assignments you missed while you were gone.
 - Approved absences – you have one day for each excused absence to make up your work. This includes daily grades and test.
 - Missed exams must be taken before or after school within the time allowed.
 - If you are absent during a lab you must make special arrangements to come in before or after school to make up the lab or get an alternative assignment.
- Cheating/ Plagiarism
 - Cheating on a test or assignment will result in a grade of zero for all involved.
 - Data for lab reports must be taken during lab. Copying of lab data after lab is not allowed. Each student is responsible for individual lab reports unless specifically stated by teacher.

Classroom Expectations:

- Students are expected to be in their seat and ready when the bell rings.
- Materials (textbook, pencil, paper, and notebook) must be brought to class each day. If you do not bring needed materials to class you will be sent to your locker to get them and will also receive a tardy if you are not in the room when the bell rings.
- The laboratory or room must be clean at the end of the period before leaving.
- Treat everyone with respect.
- Follow the instructions given by teacher or lesson.
- All school rules will be followed as stated in the student handbook.
- All safety rules as stated in the Flinn Science Safety Agreement must be followed. You must sign and return in order to participate in labs.

Keys for Success in Biology

- Have a positive attitude!
- I am here to help you succeed, so feel free to ask me for help. I am available before and after school in my room
- Ask lots of questions. If you are unclear about something from the textbook, lab, or from discussion, **ask**.
- Make sure that you understand how the lecture, homework, and labs interrelate. Labs and homework are designed to reinforce significant ideas from the text. Make sure that you see these connections.
- Start studying for tests early. By studying and reviewing each night you are not only helping to prepare for the test more effectively, you are also more prepared for class each day and any quizzes that may be given.

First Semester-Biology I

1 st Nine Weeks	Content
Chapter 1-Biology and You	Introduction to the Scientific Method Characteristics of Life Biology in Your World
Chapter 2-The Chemistry of Life	Nature of Matter: Atoms and Elements Water and Solutions Chemistry of Cells Energy and Chemical Reactions
Chapter 3-Cell Structure	Cells and Microscopes Cell Theory Prokaryote and Eukaryotic Cell Organelles
Chapter 4-Cells and Their Environment	Passive Transport Active Transport
2 nd Nine Weeks	Content
Chapter 6-Chromosomes and Cell Reproduction	Cell Division Chromosomes Cell Cycle Mitosis and Cytokinesis
Chapter 7-Meiosis and Sexual Reproduction	Meiosis Sexual and Asexual Reproduction
Chapter 8-Mendel and Heredity	Origins of Genetics Mendel's Theory Punnett Squares Heredity Genetic Disorders
Chapter 9-DNA: The Genetic Material	Transformation Structure of DNA Replication of DNA
Chapter 11-Gene Technology Will be included in labs and activities with Chapters 8-9 (Genetics). Chapter 20-21 Bacteria and Protists Will be included in labs and activities with Chapter 3 (Prokaryotes and Eukaryotes).	

*Syllabus may be subject to change with instructor's discretion.

Second Semester-Biology I

3rd Nine Weeks	Content
Chapter 10-How Proteins are Made	Decoding DNA: Transcription and Translation
Chapter 13-The Theory of Evolution	Darwin and Natural Selection Evidence of Evolution Examples of Natural Selection
Chapter 14-Classification and Organisms	Taxonomy Classification
Chapter 15-Populations	Population Dynamics Modeling Population Growth How Populations Evolve
Chapter 16-Ecosystems	Interactions of Organisms and Their Environment Energy Flow in Ecosystems Cycling of Materials in Ecosystems
4th Nine Weeks	Content
Chapter 17-Biological Communities	Symbiotic Species How Competition Shapes Communities Biomes Aquatic Communities
Chapter 5-Photosynthesis and Cellular Respiration	Energy in Living Systems: ATP Photosynthesis Cellular Respiration
Chapter 27-Introduction to Animals	Body Symmetry Body Systems
Chapter 36-Animal Behavior	Evolution of Behavior Genetically Influenced Behavior Learned Behavior Types of Behavior
Chapter 29-Mollusk and Annelids	Characteristics of Mollusk-Dissect Clam Characteristics of Annelids-Dissect Earthworm
Chapter 30-Arthropods	Characteristics of Arthropods-Dissect Grasshopper Characteristics of Arachnids Characteristics of Crustations-Dissect Crayfish
Chapter 19-Introduction to the Kingdoms of Life Will be included in labs and activities with chapter 14 (Classification). Chapter 18-The Environment Will be included in labs and activities with Chapter 15-17 (Ecology).	

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