

Life Science  
2017-2018 School Year  
Mrs. Laurie Miller  
610-866-5781  
lmiller@basdschools.org

### Message from the Teacher

Biology is the science of living organisms, so this field changes rapidly and dramatically as new information is discovered. More than any other field, biology encompasses a great scope of exciting topics ranging from ecology to how the human body works and fights off diseases. Biological research is currently working on some of the world's most interesting problems, like how to solve global warming, how to decipher all the information stored in human DNA, or how to combat diseases like cancer and diabetes or pathogens like HIV, influenza, and antibiotic resistant strains of bacteria. The BASD middle school teachers have coordinated the curricular topics to support/prepare students for 9<sup>th</sup> grade biology and the state Keystone biology exam.

### Communication

Please contact me when you have special concerns or problems at [lmiller@basdschools.org](mailto:lmiller@basdschools.org)

### Course Description

Seventh grade life science includes topics such as the scientific method, metric system, cell theory, chemistry of living things, genetics, classification, and a major emphasis on diversity of organisms and their adaptations to a variety of environments. In order to meet the various standards, students will interpret data, formulate hypotheses, design and perform experiments. Students will produce reports that are organized, present ideas thoughtfully, and use appropriate vocabulary.

### Student Textbooks & Materials

The books used are mini-books (Cells and Heredity, From Bacteria to Plants, Environment, Animals) from the Life Science series by Prentice Hall.

### Required Student Supplies

- blue 3 ring binder (1 ½ inch to 2 inch)
- 3 dividers
- highlighter
- book sock
- pencils
- ear buds or headphones**

### Major Course Objectives

- The student will be able to design (and/or) perform a controlled experiment and interpret the data gathered in order to draw conclusions.
- The student will be able to demonstrate that the cell is the basic unit of life and cells are differentiated within the body to perform different functions.
- The student will be able to utilize their understanding of the DNA molecule to explain how genetic traits are passed from one generation to the next.
- The student will be able to explain the relationship between classification and evolution, reproductive success/survival in a particular environment, and how changes in the environmental conditions can affect the survival of populations of entire species.
- The student will be able to describe what an ecosystem is and how organisms interact within it.

#### Major Projects

- Which exercise raises the heart rate the most? - formal lab report
- Where in the school environment will you find the most microorganisms? -formal lab report

#### Teacher Homework Policy

Students must always have their up to date agenda planner in their possession. Daily checked assignments are given a 5 point value. A zero is recorded if the student misses the homework and half value is given for incomplete homework. Graded homework, such as completion of a lab, is due on the specific date assigned. Late graded homework will be penalized 5 points per day late. The student is responsible for obtaining and completing any missed assignments. Homework is posted on the front board.

#### Teacher Grading Policy

Each assessment will be given possible point values. Your grade is calculated by total points you earn/total possible points. Homework is posted daily in the classroom. Tests will be posted a week before the assessment date.

The science grade is comprised from the following areas:

- Homework
- Labs/lab quizzes
- Tests
- Quizzes
- Projects (includes formal lab reports)
- Classwork

#### Classroom Management Plan

Students are expected to:

1. Be ready to learn with all materials
2. Be respectful
3. Be responsible
4. Be an actively engaged learner
5. Be a positive part of our school community by following classroom/school rules

Consequences for students failing to follow the expectations include:

1. verbal warning/ student-teacher conferencing
2. teacher detention
3. office referral

Teacher detention.

- 3:05 pm- 3:45 pm Monday - Thursday
- Students will be given 24 hour notice of detentions
- Parents will be notified of the detention

#### Extra Help

Extra help is available Monday- Thursday 3:05-3:25, unless there is a scheduled meeting. Morning help is also available by appointment only.