

**Biology I**  
**2020-2021**  
[prekrelj@dcpsmd.org](mailto:prekrelj@dcpsmd.org)

**Teacher: Mr. Prekrel**

**Phone: 410-943-4511**  
**ext. TBD**

**Room Number: A215**

**Office Hours: Mondays from 9:35-11am**

**Course Description:**

Biology I is a course designed to present students with a molecular and cellular evolutionary view of life on earth. Students explore and discover principles that may be in operation universally that cause life forms to arise, prosper, and change in any appropriate environment. Biological concepts explain the uniqueness and interdependence of living organisms, their interactions with the environment, and the continuation of life on earth. The course prepares students for the Maryland Integrated Science Assessment which is required for graduation. STEM concepts and practices are embedded in this course.

**Course Objectives:**

- Demonstrate an understanding of: scientific facts, concepts, techniques, terminology, methods of presenting scientific information and the scientific method.
- Apply and use: scientific facts, concepts, techniques, terminology, appropriate methods to present scientific information and the scientific methods.
- Construct, analyze and evaluate: hypotheses, research questions, predictions, scientific methods and techniques, and scientific explanations.
- Demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigations and problem solving.
- Demonstrate the manipulative skills necessary to carry out scientific investigations with precision and safety.

**Required Materials:**

The required materials needed for this class are: **A binder or section of a binder dedicated to the course or 1 Spiral Notebook, loose leaf paper and Writing Instruments** (pencil or black/blue pen). *Recommended: Color Pencils*

**Primary Text/Resources**

- SEPUP. (2016). **Science and Global Issues: Biology**, 2<sup>nd</sup> edition. The Lawrence Hall of Science, University of California, Berkeley Published by LAB-AIDS®, Inc., Ronkonkoma, NY

**INSTRUCTIONS TO ACCESS THE LAB-AIDS STUDENT ONLINE BOOKSHELF:**

Start at: [lab-aids.com](http://lab-aids.com)

1. At the top of the homepage, select the "Login" pull-down menu and choose "Student"
2. This will redirect you to the bookshelf login
  1. Enter your USERNAME and PASSWORD (*Case Sensitive*)
  2. Select *Remember login* if you would like it log you in automatically when you return
3. This will bring you to your customized bookshelf

**You have access to: Science and Global Issues: Biology (2<sup>nd</sup> Edition)**

**\*\*\* Using the curriculum PORTAL will give you access to the most resources\*\*\***

Your login information: (*PLEASE REMEMBER THAT YOUR USERNAME/PASSWORD IS CASE SENSITIVE*)

**USERNAME: Will be given to the student**

**PASSWORD:**

**Units of Study: Performance Matters assessment dates TBD by BOE**

- I. **Evolution** (8-10 days)
  1. Theory of evolution [4-1, 4-2, 4-5]
  2. Evidence of Evolution [4-1, 4-3]
  3. Natural Selection [4-1, 4-2, 4-3, 4-4]

4. Adaptation and Speciation [4-1, 4-2, 4-3, 4-4]

**II. Sustainability** (5 days including work with Shore Rivers)

*All ESS standards embedded. No performance matters assessment*

*[ESS 3-1, ESS 3-2, ESS 3-3, ESS 3-4]*

1. Environmental Literacy Credit/ action projects
2. Ecological Footprint
3. Planet 100
4. Jaffery City Lab

**III. Interdependent Relationships in Ecosystems** (16-20 days)

1. Ecosystems and Change [2-2, 2-6, 2-8]
2. Populations [2-1, 2-4, 2-6, 2-8]
3. Energy Flow through an Ecosystem [2-2, 2-4, 2-6, 2-8]
4. Symbiotic Relationships [2-2, 2-6]
5. Invasive Species [2-4, 2-6, 2-8]
6. Tragedy of Commons [2-2, 2-4, 2-6, 2-8]
7. Succession

**IV. Matter and Energy** (10-11 days)

1. Biomolecules [1-6, 2-5]
2. Earth's Spheres [2-4]
3. Photosynthesis [1-5, 2-5]
4. Cellular Respiration [1-7, 2-3, 2-5]

**V. Structure and Function** (8-10 days)

1. Prokaryote vs Eukaryotes (plant vs. animal) review [1-1, 1-2]
2. DNA [1-1]
3. RNA [1-1]
4. Body Systems and feedback mechanism [1-3]

**VI. Inheritance and Variation of Traits** (8-10 days)

1. Cell Cycle [1-4]
2. Cell Division [1-4, 3-2]
3. Mutations [3-2]
4. Monohybrid, Dihybrids and Pedigrees [3-1, 3-3]

**VII. Earth Science**

**VIII. +/- MISA review**

**Grading Policy**

Categories	Percent of Total Term Grade
<i>Summative</i>	60%
<i>Formative</i>	40%
<i>Please refer to the county calendar for a complete explanation of this year's grading policy.</i>	

Grade sheets will be printed and given to students upon student(s) request. All graded work must be retained for a *minimum* of two weeks after it is returned to guarantee that grades entered in the grade book are accurate. Checking grades are the responsibility of the student, and any appeals to published grades must be accompanied by the work in question. Any questions outside of school hours can be directed to the teacher email listed above or a message left to my school voicemail. *It is advisable that you retain papers for the duration of the semester to assist in studying for cumulative quizzes and the final exam.*

### Grading Scale:

100-90% = A

89-80% = B

79-70% = C

69-60% = D

59-0 = E

### Make-up work:

It is the *student's responsibility* to obtain make-up work from the make-up work folder and communicate with the instructor. The student will then have the time permissible outline in the student handbook to complete the assignment for credit. **Any missing assignments at the time of grading will be given a 0 until completed.** See Your Student handbook and the instructor for any additional questions.

### Student Responsibilities When Absent:

- It is the **student's responsibility** to get any class notes or discussion information missed.
- It is the **student's responsibility** to contact the instructor and utilize the assigned location for missing work to determine what work was missed while absent this includes class notes, homework assignments, tests, quizzes, labs, and projects.
- Assignments that are not made up will receive a grade of zero (even if the absence is excused). If a student is absent on the day an assignment is due, the assignment will be due the day the student returns or it will be considered late. If a test or quiz is missed due to an excused absence, a make-up time needs to be scheduled immediately upon a student's return.

### Guidelines for Success:

#### Classroom Rules:

- Manners and respect are fundamental expectations, **always**. This includes student to student interactions, as well as, student teacher interactions.
- Be prepared and punctual every day. Tardiness will **not** be tolerated.
- Attend to personal needs prior to class.
- Impolite and unnecessary behavior will **not** be tolerated.
- Cheating of any kind is inexcusable and will be dealt with as strictly as allowed by the student handbook.
- Abide by all school rules and policies.
- Use of the technology within this classroom is a privilege and will only be allowed with permission and for instructional purposes only. Permission will be indicated by the stop light signal located at the front of the room by the daily objectives.
  - *Red- no use of phones at all*
  - *Yellow- some use of phones for instructional purposes only, wait for teacher prompting*
  - *Green- the use of cell phones is permitted for instructional purposes for the entirety of the class. Wait for teacher prompting*

#### Expectations:

- Students need to be present, prepared and participating
- Come to class on time with all required materials needed for that day (homework, writing utensil, notebook, binder). If you must leave the classroom to retrieve your materials and are not back in class before the late bell, you will be marked as tardy.
- If you need to use the restroom, or go to the nurse, please **DO NOT ASK TO LEAVE DURING THE FIRST 10 MINUTES OR THE LAST 10 MINUTES OF CLASS**. That is a school policy and will be strictly enforced. Please be sure to sign in and out, take your agenda, and the hall pass.
- Take time to read the objectives on the board, the activities that will be done, and the assignments that may be listed.
- Be respectful of the rights of others. This includes being respectful to the teacher, as well as, your peers. This does not include talking while instruction is taking place or getting off assigned task when group work is being done.
- Successful students must be self-disciplined to maintain their focus and ensure that they are not a distraction to other.

- Ask me for help if you do not understand what you are doing. You may also ask your peers for help when appropriate.
- Ask me for additional help after school when the need arises. I am a resource and more than willing to help anyone who takes the initiative to help themselves!

### **Cell Phones**

- Students will be allowed to use their cell phone only at designated times during class for educational uses only. A sign will indicate when it will be appropriate to use cell phones for educational purposes. If you're using your cell phone in an inappropriate manner (ie texting, calls, social media), Ms. Bone will request your phone and the appropriate discipline action will be taken.
- Mr. Prekrel is not responsible if your phone becomes misplaced during school hours. Individuals assume full responsibility for their person electronic devices as well as their Board-assigned devices. DCPS is not responsible for the loss of, or damage to, student or staff-own personal electronic devices (per DCPS calendar).

### **Consequences for Breaking Classroom Rules:**

- Warning (verbal and nonverbal)
- "Time Out"/ "Breather" with reflection and individual discussion
- Call/contact home
- Lunch detention
- After school detention
- Write up/asked to leave classroom

**\*Certain behaviors may warrant the immediate dismissal of a student(s) from the classroom immediately at the teachers discretion in regards to the safety of the class and to remain focused on instructional minutes.\***

### **Emergency Procedures**

- Posted on the classroom wall in the student center are copies of the emergency procedures plans.
- The teacher will have a class copy of the emergency procedures and drills.
- The students will receive additional copy of laboratory safety procedures and rules.
- When exiting the building in an emergency, students are expected to remain orderly, quiet and respectful and transitioning to the classes safety zone.
- Students are to follow all school rules and expectations regarding emergency drills