

BIOLOGY I

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Biology is divided into two courses: Biology I and Biology II. Students must receive credit in both Biology I and Biology II in order to receive a diploma from Pine City High School. Students will also take the Minnesota Comprehensive Assessment (MCA) for Science in May.

Biology I Course Description:

All living organisms are composed of cells. What are cells? What do they do? How do they work? What happens if they stop working? Can we fix them? How do we get more cells to replace those that die or become dysfunctional? In Biology I, we take a close look at how cells make up living organisms, the functions and differences in cells, and the importance of making sure cells work properly to maintain life.

Learner Outcomes and Standards:

This course covers a combination of national and state science standards, as well as content-area language arts standards. The Learner Outcomes for Biology I are aligned with the Minnesota State Standards in Science. A complete list of the standards are found at : <http://education.state.mn.us/MDE/dse/stds/sci/>

Major Units in Biology I:

- Nature of Science
 - How do scientists go about making discoveries and solving scientific problems?
- Chemistry of Life
 - What is the role of water, carbohydrates, lipids, proteins, and nucleic acids in living organisms?
- Cell Structure
 - How is a cell put together and how does it function?
- Cell Processes
 - How do substances get into and out of a cell?
- Cell Growth and Division
 - How does a cell grow and divide to make more cells?

MCA Test Preparation:

Students will learn and practice strategies for reading and interpreting scientific writings, graphs, and tables. Students will also practice technical writing skills and be required to interpret data. Students will use math and writing skills regularly throughout the course. Students enrolled in Biology will take the MCA III Science Test in May.

Modes of Instruction:

- | | | |
|------------------------|-------------------------|---------------------|
| ● Lab Investigations | ● Web Quests | ● Textbook Readings |
| ● Field Investigations | ● Case Studies | ● Videos and DVDs |
| ● Dissections | ● Classroom Discussions | ● Teacher Lectures |

Materials Used:

- Digital Text: *Biology*, Johnson and Raven, Holt, Rinehart and Winston, 2004.
 - You will be issued a password at the beginning of the semester to access the digital textbook.
- Schoology - An online Learning Management System where students and parents can access lesson plans and class materials. Please contact your child's teacher for an access code. Schedules and links can also be found on Mr. Adams and Mrs. Campbell's web pages
- Google Drive - handouts, notes, learning opportunities, etc. will be shared with students through Google Drive
- Newspaper and Magazine Articles, Life Science Websites
- Videos/DVDs pertaining to the curriculum including – See website for specific titles
- Miscellaneous Scientific Equipment

Attendance:

It is important for you to be in class so that you can learn. The PCHS attendance policy stated in the Dragon Handbook applies to this class. If you are absent, you are responsible for making up all missed work, notes, labs, etc. in a timely manner according to the PCHS attendance policy.

Tardiness:

You will be allowed **one** unexcused tardy per quarter without consequence. Every tardy beyond one will result in the assignment of lunchtime detention. You will be considered tardy if you are not seated in your desk when the bells stop ringing. If you are late due to talking to another teacher, being in the office, etc., it is **your** responsibility to get a pass or you will be considered tardy.

Academic Integrity:

Copying someone's work or allowing someone to copy your work are both violations of school policy regarding academic integrity. To comply with the Academic Integrity policy, students will avoid academic dishonesty and refrain from cheating or plagiarizing in all forms including these:

- Copying the work of another student.
- Allowing one's work to be copied by another student.
- Using unauthorized materials on an assessment or project.
- Using unauthorized electronic devices on an assessment.
- If taking an assessment on an electronic device, being on a document or website that is not authorized by the teacher.
- Obtaining unauthorized copies of materials, information, or knowledge prior to taking a test or completing a project.
- Claiming credit on a group project for contributions that were nonexistent or below requirements.
- Falsifying, being paid for, or forging any academic document.
- Following the wording on the original source too closely when paraphrasing and not giving credit to the original author or source.
- Using the ideas of another without proper citation.

Violations of the academic integrity policy may result in your receiving no credit for the Learning Opportunity, assessment, or the entire course.

Biology Standards Based Learning

The goal of standards based learning in biology is to have students learn, and get to a level of proficiency on the Minnesota State Science Standards, and then work beyond the basic knowledge of the standard. Standards are broken down into Essential Questions (EQs), and students will be assessed on these essential questions for each biology unit. Students will also be assessed on their proficiency of the terminology and vocabulary associated with the Minnesota State Science Standards for each unit.

- Students will take part in Learning Opportunities in class and as homework. The purpose of these Learning Opportunities is for students to practice and understand the scientific concepts that are associated with the State Science Standards and the EQs.
- Individual grades or points will **not** be given to the Learning Opportunities since this is the time to learn and practice material covered in class. Feedback will be given so that students can learn from any mistakes or misconceptions. Learning Opportunities are used to strengthen the students' skills.
- Some learning opportunities will be required. No points are given for the Learning Opportunities but are required as part of the learning process. All students will need to complete these required Learning Opportunities in order to earn a unit grade of proficiency for the unit. Other Learning Opportunities are optional and will allow students to have additional practice or receive more information on those EQs in which they feel they have not yet reached a level of proficiency for the unit assessment.
- A student is said to be proficient if 80% is achieved on the unit assessment for **each** of the essential questions, and proficient on the terminology/vocabulary assessment if 80% is achieved.
- If a student is not proficient on one or more essential questions, or the terminology/vocabulary assessment, the student may be re-assessed on those essential questions after completing additional learning opportunities (Remediation Learning Opportunity). The goal is for students to get to a level of proficiency on each essential question and the vocabulary, and then work above and beyond the standard.
- Reassessment can be completed **in class** up to the end date of the unit. This date is usually 3 days after the assessment and will be posted in class. After the end date of the unit, students can still complete reassessments before or after school, or during Lunch Lab by making arrangements with the biology teacher up until the Unit Completion Date. This date will be posted in the classroom.
- Students who achieve a level of proficiency on the unit can then work "Beyond" the level of proficiency, or "Above and Beyond". Students will go more in depth in these **self guided** learning opportunities to gain further knowledge and understanding of the biological concepts and ideas associated with the unit, State Science Standards, and EQs. Students can work on Above and Beyond Learning opportunities for a unit until the Unit Completion Date.
- Student will earn a letter grade for each unit completed (see below). At the end of the quarter, unit letter grades will be averaged to determine the letter grade earned for that quarter.

● **Grading for Biology Standards Based Learning Units**

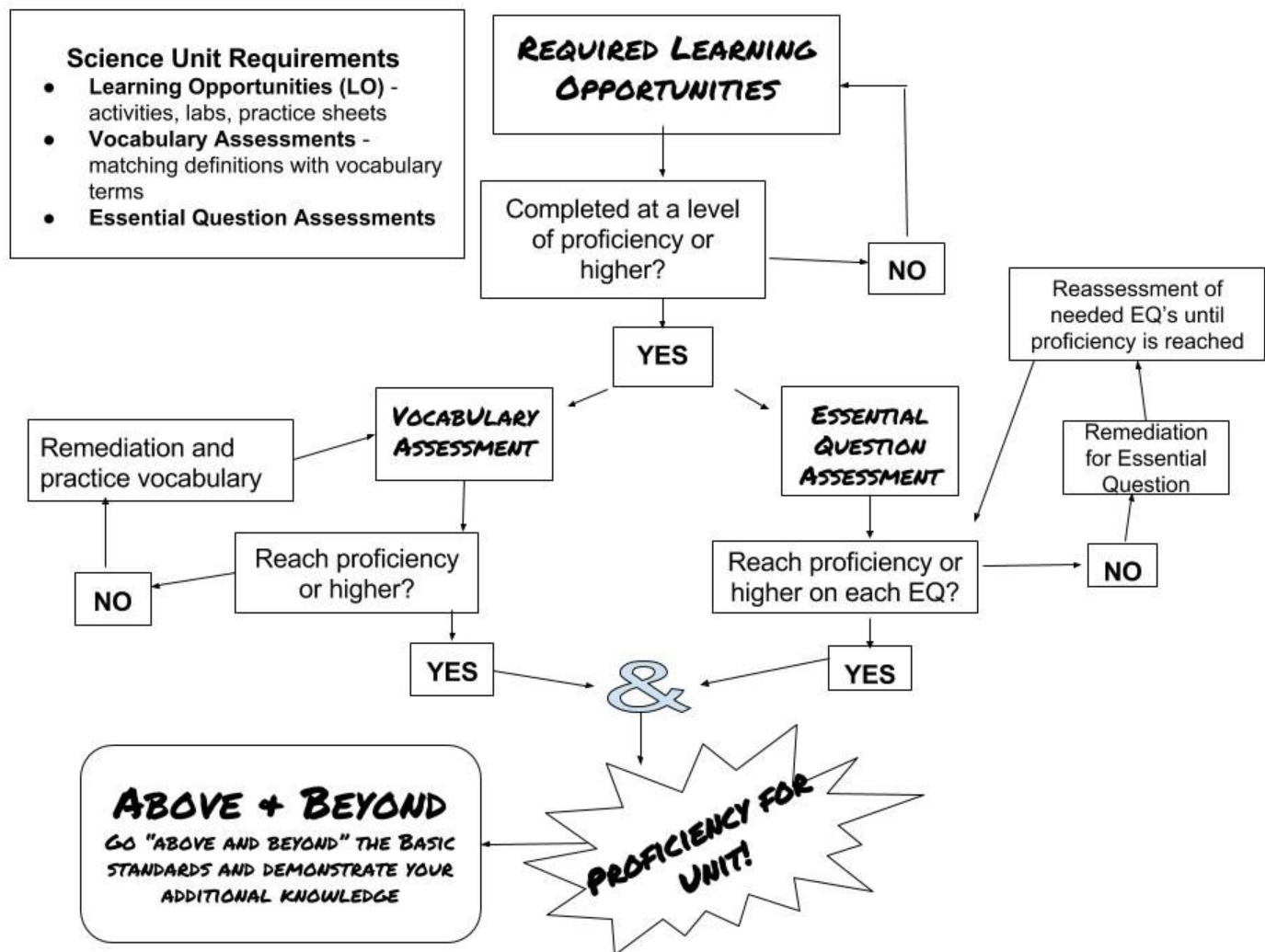
C	<ul style="list-style-type: none"> ● Complete ALL learning opportunities at a proficiency level or higher ● Reach a level of proficiency or higher on ALL Essential Question Assessments (either on initial assessment or reassessment) ● Reach proficiency or higher on vocabulary assessment ● Actively participate in class activities
C-	<ul style="list-style-type: none"> ● ALL learning opportunities are NOT completed at a proficiency level ● Reach a level of proficiency or higher on ALL Essential Question Assessments on initial attempt ● Reach proficiency or higher on vocabulary assessment ● Actively participate in class activities <p>*Note: you may not earn above a C- until all learning opportunities are completed at a proficiency or higher level</p>
D+/ D	<ul style="list-style-type: none"> ● Complete ALL learning opportunities at a proficiency level ● Do not reach a level of proficiency on all of Essential Question Assessments on initial attempt, and.. ● AFTER reassessment, MORE THAN 50% of the Essential Questions were passed at a level of proficiency ● Reach proficiency or higher on vocabulary assessment ● Actively participate in class activities
F	<ul style="list-style-type: none"> ● Do not complete ALL learning opportunities at a proficiency level ● Do not reach a level of proficiency on all of the Essential Question Assessments on initial attempt and reassessment was not completed, or... ● AFTER reassessment less THAN 50% of the Essential Questions were passed at a level of proficiency ● Do not actively participate in class activities

Above and Beyond Proficiency

Beyond
<ul style="list-style-type: none"> ● The student has achieved proficiency (C) level for the unit ● The student has gone “Beyond” the basic level of learning, choosing a Learning Opportunity from a list of possible choices provided by the biology teacher. ● The grade of incomplete, +1, +2, +3, or +4 can be earned based upon the level of understanding, quality, and successful learning demonstrated in the Learning Opportunity ● The grade earned will increase or raise the unit score (+2 increases the unit grade of C two levels to a B-....C to C+ to B-)
Above and Beyond
<ul style="list-style-type: none"> ● The student has achieved proficiency (C) level for the unit ● The student has successfully completed a “Beyond” level Learning Opportunity ● The student has gone “Above and Beyond” the basic level of learning, choosing a Learning Opportunity from a list of possible choices provided by the biology teacher. ● The grade of incomplete, +1, +2, or +3 may can be earned based upon the level of understanding, quality, and successful learning demonstrated in the Learning Opportunity ● The grade earned on the ‘Above’ Learning Opportunity increases the ‘Beyond’ unit grade (+3 increase the Beyond Level grade three levels B- to A-....B- to B to B+ to A-)

All Learning Opportunities will go into your science notebook. Science notebooks will be used by students to prepare for assessments and as evidence of Learning Opportunities completed.

Biology Unit Structure:



Cell Phones, Chromebooks, and other electronic devices

Cell phone, iPod, mp3 player, and gaming device use is not permitted in the biology classroom. All devices must be put away **BEFORE** entering the classroom. Texting, listening to music, playing games or any other use not authorized by the teacher for school purposes is prohibited.

As stated in the Dragon Handbook, students may use their cell phones **between** class, in the hallways. Cell phones, use or contact, in the biology classroom is not permitted. Students should keep cell phones in their backpacks or their locker during biology. Violation of this policy will result in your device being turned over to the office for you to pick up after the school day (as stated in the Dragon Handbook).

Chromebooks are a learning tool that will be used in class. It is expected that students come to class every day with their Chromebook charged. If you do not take your Chromebook home, it is your responsibility to pick it up prior to class and make sure that you plug it in at the end of the day so it is charged for the next day. Chromebooks **MUST** remain in their protective cases at all times. Students will be instructed of when they are to use their chromebooks to access information or work on a learning opportunity. Only those sites, links, documents, etc. used for the purpose of instruction in biology will be accessed during class. Consequences will be given to students who are not using the Chromebook as instructed by the teacher.

Lunch Lab - Extra Help in Science

Students who fall behind in completing their learning opportunities or who are not making adequate progress in a unit, may be assigned to the Lunch Lab. Students will eat their lunch and have time to complete their missing work under the supervision of a science staff member that can assist with their questions. Failure to show up for **assigned** Lunch Lab will result in detention. Students may also **request** to use Lunch Lab to receive extra assistance, work on remediation for Essential Questions for a unit, or take a reassessment.

Mr. Adams and Ms. Campbell are also available most mornings and after school to assist with questions. However, there are mandatory meetings for all staff members Tuesdays after school and Wednesday mornings before school each week, so Mr. Adams and Ms. Campbell will not be available at these times. Students should always make arrangements with the teacher ahead of time if possible when coming in early or staying after school to make sure that there are no conflicts with the time.

Classroom Expectations:

*You are required to follow all guidelines and expectations outlined in the PCHS student handbook

1. **Be respectful of people and property**

*respect yourself and others (teachers, substitutes, classmates, visitors, etc.)

*respect the learning of others, do not interfere with the learning of others

*Actively listen to the person who is speaking (absolutely no heads down on the tables at any time)

*Be respectful of others ideas and thoughts

*Follow all directions the first time – especially SAFETY guidelines

*Cell phones are a distraction to both me and you – I do not want to see them, hear them, or have to wonder if you are using them. (Violation consequences as stated above)

2. **Be in class ready to learn**

*Be on time – one unexcused tardy per quarter, then detention is assigned

*Have all materials with you – no locker passes

*Remain in your seat until dismissed (no lining up at the door)

*Remember the PCHS attendance policy – **you** are responsible for making up missed work and time according to the policy in your student handbook

3. **Take responsibility for your work**

*Complete your own work – violation of the academic integrity policy in the student handbook will result in the loss of credit for the Learning Opportunity, assessment, or course

*Keep up with Learning Opportunities and vocabulary every day. Do not procrastinate and wait until the end of the unit to play ‘catch-up’.

*Let your teacher know if you are having problems ASAP so we can get you back on track. Ask for help. You all have the ability to be successful in Biology

4. **Be Safe**

* Absolutely no horseplay is allowed-lab will be shut down and a score of zero will be earned

*Use equipment properly

*No food or beverage in class

Consequences:

If a student chooses not to follow classroom procedures and expectations, he/she will be given a warning. If the students continues the inappropriate behavior, the following may occur per the teacher’s discretion: removal from lab or activity, new seat assignment, conference with teacher and student, lunchtime detention, removal from class, phone call to parent/guardian, or other consequence necessary to allow the other students in the class to learn without disruption.

**No warnings will be given for cell phone violation, and consequences will follow PCHS policy.*

The student must accept responsibility for her/his own learning in this course. Biology is meant to challenge the student in a fun and meaningful way. We will provide many opportunities for you to be successful and will support your learning in every way we can, but the first line of success belongs to you, the student.

If you have any questions about this course now or in the future, please feel free to contact your teacher at the phone number or email address listed on the first page. We are looking forward to spending the semester exploring the living world with you!

Mr. Adams

Ms. Campbell

Detach and return this page. Keep remainder for future reference.

By signing below, I acknowledge that I have read and agree to the basic guidelines and expectations of Biology at Pine City High School.

Student Signature

Parent Signature

Student Name

Parent e-mail