

Welcome to Biology

Biology is the study of life. Life is what distinguishes animals and plants from inorganic matter. This includes growth, reproduction, functional activity, and continual change before death. Throughout this course, we will be using a combination of science skills such as, analyzing data, inquiry, and much more to answer questions and critically think about the biological world around you.



Science Skills

Science Literacy	Students will be able to use various forms of scientific evidence to construct an explanation of the world around them.
Investigations	Students will be able to use models and experiments to investigate and analyze scientific principles.
Graphs and Charts	Students will be able to create and analyze charts, graphs and tables.
Math Applications	Students will be able to apply basic and mathematical computations to scientific principles.
Scientific Thinking	This skill is essential in designing experiments, developing scientific questions, analyzing data, and drawing critical conclusions.
Making Connections	All concepts in biology have important connections to other concepts in biology, but also to other subjects. Biology plays an enormous role in our lives and the ability to recognize these connections is critical to a deeper understanding of biology

Topics

1. Nature of Science – Students will explore how the science process works through numerous activities.
2. Biochemistry – Students will demonstrate their understanding of the four macromolecules and how the process of photosynthesis and cellular respiration combine to provide the cell with energy.
3. Cells & Energy– Students will demonstrate their knowledge of the organization of organisms via cells and be able to describe how the various organelles within the cell work together to obtain, store, and release energy to drive all life on earth.
4. Cell Division – Students will understand the process of cell growth and division and will be able to describe the outcome of both mitosis and meiosis or if a change takes place during division.
5. Genetics – Students will demonstrate their knowledge of inheritance of biological information through both Mendelian and non- Mendelian genetic concepts.
6. DNA – Students will be able to explain how DNA translates into protein production and predict the outcome of changes to the genetic code thus changing the transmission and expression of biological information.
7. Evolution – Students will demonstrate their understanding of how populations change over time and how indirect evidence can be used to piece together the history of life of Earth and relatedness of organisms.
8. Ecology – Students will understand population dynamics, symbiotic relationships and will be able to explain how invasive species disrupt normal population cycles. Students will also understand how energy and nutrients move through ecosystems and what role humans play in this delicate balance.

Grading Policy

Feedback on progress will be shared in infinite campus and will be organized in the following categories: Content, Making Connections, Scientific Thinking, and a Quality Worker Grade Final grades will include a cumulative exam that will cover material from the beginning of the course to the end of the course.

- Content: Weekly quizzes & Classwork
- Making Connections: Student Made Flow Charts
- Scientific Thinking: Lab Reports & Projects
- Quality Worker Grade: Engaged and on time for class

Grades will be updated and posted on Infinite Campus

90 – 100 = A

70 – 79 = C

80 – 89 = B

60 – 69 = D

59 or lower = F

Rules and Expectations

1. Be prepared and on time for class.
2. Students will be RESPECTFUL of themselves, fellow students, teacher, classroom materials and their work.
3. No food or drink. Only exception is water.
4. No talking when Ms. Beels is explaining something to the class.
5. The classroom is considered to be your 'workplace'. This means that feet on the desks, sitting on tables, not cleaning up after yourself, etc. are not acceptable. Students are responsible for all equipment given to them to use.
6. Carefully follow instructions.
7. There may be a variety of skill levels in this class. I expect you to be aware and tolerant of this situation.

Supplies

1. 1 in. Three Ring Binder
2. Binder Tabs:
 - a. Notes
 - b. Graded Worksheets
 - c. Graded Labs
 - d. Assignments to Complete
 - e. Assignments to Turn In
3. Lined Paper
4. Pencils and/or pens
5. **Please bring in one of the following items for Ms. Beels**
 - a. Kleenex
 - b. Glue sticks
 - c. Rolls of Tape (not tape dispensers)
 - d. Scissors
 - e. Colored Pencils
 - f. Highlighters
 - g. Rulers
 - h. Paper Towels
 - i. Assorted Colors of Permanent Markers
 - j. Regular Markers

Policies

Homework

- * Students will have the term to turn in any assignment that was completed during that specific term at no penalty to them. I understand that all students have different ways of learning, which requires more time to learn and grasp concepts. Because I am giving ample amounts of time to complete work, it is suggested that the assignments should be completed before the end of a unit. In addition, all assignments will be required to be fully completed and neat. If an assignment is turned in half done and messy, it will not count – even if the answers are correct. Again, since I provide plenty of time for assignments to be completed, I expect the assignments to be fully complete. **Do not turn the assignment in just to turn it in if it is not complete. Take the extra time.**

Lab Work:

- * All students must follow lab procedures and safety. All labs must be completed with neat and organized lab write-ups.

Tests, Quizzes, Projects:

- * All tests, quizzes and projects will be announced in advance. If the student is absent during the day of the test, it is the student's responsibility to schedule their make up test on the day they return. Tests can be made up after school. If you are absent more than one day, you will have to arrange for a make up. All make up tests must be taken within the time frame according to school policy.

Website

- * www.beelsscience.weebly.com
- * We will be using the website constantly. It is a resource for you. If you are absent, please see the class website (before approaching Ms. Beels) for what we completed that day then make any necessary arrangements with Ms. Beels. There will be a daily agenda posted that is color coordinated according to the unit we are working in. Please see the "Tips for Success" for more information about the website.

You Were Absent

- * If you are absent, Ms. Beels asks that you check the daily agenda on her website before coming to her and asking "if you missed anything important yesterday". Please print anything you missed off at home and complete it on your own time. If you are unable to print at home, you may print in the library here at school, or e-mail me and let me know that you checked my website, and what you need to collect from me.

Quality Worker Grade

- * Everyday will be worth 5 points. Being engaged/an active member in class is 2.5 points and being on time (not tardy) to class is the remaining 2.5 points. Students will start each day with 5 points no matter what – from there, they have the opportunity to keep the points or lose points (0.5 at a time). Each minute a student is tardy 0.5 points will be deducted from their grade for that day – which means after 5 minutes of tardiness, they lose 2.5 points for the day. Ms. Beels will let students know in a private conversation if they happen to lose points. Once the conversation is had, they will have the opportunity to regain their points (unless they have been tardy – unfortunately this is something that can not be reversed). At the end of each week a quality worker grade worth a total of 25 points will be added to the grade book.
- * Per school policy, if there are 5 or more unexcused absences in a class, it will be considered truant behavior and will result in a meeting between the following: student, parent(s), dean, and teacher.

Communication

- * The absolute best way to reach Ms. Beels is through e-mail. If you would like to meet in person, on the class website there is a tab for you to book an appointment.

Technology

- * Cell phones are not allowed in class unless directed otherwise. Per the student hand book: If a cell phone is out in class when permission was not given, it will be taken for the remainder of the day and turned into the office to be picked up at the end of the day. If your cell phone is out a second time with out permission, it will be taken, turned into the office and a parent will need to pick up the phone at the end of the day. If this happens a third time, you will be unable to bring your phone to school. In addition, earbuds to listen to music will not be allowed in class. Earbud use during individual work time will be at the discretion of Ms. Beels.

Bathroom

- * You are in high school. You are welcome to use the bathroom when you need; but if the trips start to become too long and/or too frequent, Ms. Beels will start to limit your trips.

Plagiarism

- * Per the student handbook:
 - o Involves the use of someone else's ideas, words or creative products with out due credit or proper citation.
 - o Any student who violates academic integrity and/or commits an act of plagiarism will receive no credit for the assignment, test, or project in questions with no opportunity to redo the assignment and/or referral to CV administration. A second incident will result in no credit on the assignment with no opportunity to redo the assignment, referred for disciplinary action and can result in loss of academic credit for the course and/or out-of-school suspension for up to 3 days.

First Homework Assignment:

Please review the syllabus with your parent/guardian and sign this bottom portion and bring in an item from #5 in the supplies list.

Due by: Friday, August 18th 2017

Any questions I can answer? _____

(student printed name) _____ has reviewed the above syllabus with (guardian) _____