



**Extended Standards Biology Syllabus
CHS Special Education Department**

Contact Information: Parents may contact me by phone, email or visiting the school.

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CCSD Vision Statement: The Chillicothe City School District will provide tomorrow's leaders with a high quality education by developing high expectations and positive personal relationships among students, staff, and community members.

CCSD Mission Statement: The Chillicothe City School District empowers students to learn, to lead, and to serve.

Course Description and Prerequisite(s) from Course Handbook:

Biology I – 311

Prerequisite: One year science.

Required Option Grade: 10

Graded Conventionally Credit: 1

Standards used for this course will be taken from the Extended Standards and may be a review of those presented in previous courses to assure mastery of skills for students with disabilities.

Extended Standards may be found at [http://education.ohio.gov/getattachment/Topics/Special-Education/Students-with-Disabilities/Students-With-Disabilities-\(1\)/OACS-E-Science.pdf.aspx](http://education.ohio.gov/getattachment/Topics/Special-Education/Students-with-Disabilities/Students-With-Disabilities-(1)/OACS-E-Science.pdf.aspx).

This course investigates the composition, diversity, complexity and interconnectedness of life on Earth. Fundamental concepts of heredity and evolution provide a framework through inquiry-based instruction to explore the living world, the physical environment and the interactions within and between them. Students engage in investigations to understand and explain the behavior of living things in a variety of scenarios that incorporate scientific reasoning, analysis, communication skills and real-world applications. Students in this class will be taking the Ohio Alternative Assessment.

1st Quarter

- **Unit I Title: Cell Structure**
 - **Big Idea #1: I can identify** what a cell is comprised of.
 - *Essential Question #1: What is cell theory?*
 - *Essential Question #2: What are the cell types? (Pro/Euk)*
 - *Essential Question #3: What are the organelles within a cell?*
 - **Big Idea #2: I can Identify** Organelles and their Functions
 - *Essential Question #1: Are organelles the same in all cell types?*
 - *Essential Question #2: How do I differentiate between Organelles within the cell?*
 - *Essential Question #3: What are the functions of all the organelles within the cells?*
 - **Big Idea #3: I can distinguish** between Prokaryotic and Eukaryotic cells
 - *Essential Question #1: What are the characteristics of a plant and animal cell?*
 - *Essential Question #2: What are the differences between in models of plant and animal cells*
- **Unit II Title: Cellular Processes**
 - **Big Idea #1: I can identify** that the characteristics of life are regulated by cellular processes
 - *Essential Question #1: What are cellular processes? (photosynthesis and cellular respiration)*
 - *Essential Question #2: Why do cells need specific conditions to perform specific functions?*
 - *Essential Question #3: How do I draw a diagram to depict photosynthesis*

2nd Quarter

- **Unit III Title: Heredity**
 - **Big Idea #1 I can explain** that DNA directs the formation and maintenance of all living things.
 - *Essential Question #1: What is DNA and what is its structure?*
 - *Essential Question #2: What are genes and how do they relate to DNA?*
 - *Essential Question #3: What is DNA a code for (e.g., Hair color, eye color)?*
 - **Big Idea #2: I can identify** traits passed to offspring.
 - *Essential Question #1: What are traits*
 - *Essential Question #2: What traits did you inherit from your parents?*
 - *Essential Question #3: Do different species have different DNA?*

- **Unit IV Title: Genetic mechanism and inheritance**
 - **Big Idea #1 I can explain** dominant and recessive alleles.
 - *Essential Question #1: What are alleles?*
 - *Essential Question #2: What is a dominant allele?*
 - *Essential Question #3: What is a recessive allele?*
 - **Big Idea #2: I can explain** genetics mechanisms.
 - *Essential Question #1: What are sex-linked traits?*
 - *Essential Question #2: How do genes combine during sexual reproduction?*
 - *Essential Question #3: What is the difference between homozygous and heterozygous?*
 - **Big Idea #3: I can complete** a Punnett Square
 - *Essential Question #1: What is a Punnett Square?*
 - *Essential Question #2: How do I set up a Punnett Square?*
 - *Essential Question #3: How do I interpret the information in the Punnett Square?*

MID-TERM EXAM

3rd Quarter

- **Unit V Title: Evolution**
 - **Big Idea #1: I can explain** that the diversity of life is explained by biological evolution.
 - *Essential Question #1: What is the theory of Evolution?*
 - *Essential Question #2: What is natural selection?*
 - *Essential Question #3: What is the difference between endangered and extinct?*
 - **Big Idea #2: I can site evidence** that Inheritable characteristics have influence on a species or population.
 - *Essential Question #1: What are adaptations?*
 - *Essential Question #2: How do animals and plants make adaptations to survive in their environments?*
 - *Essential Question #3: What adaptations have animals made to survive their environments?*
- **Unit VI Title: Cladograms**
 - **Big Idea #1: I can complete** a cladogram.
 - *Essential Question #1: What is a cladogram?*
 - *Essential Question #2: How can a data table help me complete a cladogram?*
 - *Essential Question #3: How do I create a cladogram?*
 - **Big Idea #2: I can interpret** the data in a cladogram.
 - *Essential Question #1: How do I put data in the data table?*
 - *Essential Question #2: How do I set up the cladogram correctly?*
 - *Essential Question #3: What can the data on the cladogram and data tell me about different species?*

4th Quarter

○ **Unit VII Title: Diversity**

- **Big Idea #1: I can explain** how classification systems are used to sort plants and animals.

- *Essential Question #1: What is Taxonomy?*
- *Essential Question #2: What is the classification system*
- *Essential Question #3: What does each level of the classification system mean?*

- **Big Idea #2: I can sort** plants and animals using the classification system.

- *Essential Question #1: How do I use the classification system*
- *Essential Question #2: How do I match organisms based on their classification?*
- *Essential Question #3: I can sort organisms based on their classification.*

○ **Unit VIII Title: Interdependence of Life**

- **Big Idea #1: I can site evidence** that transformation of energy and matter relates to survival.

- *Essential Question #1: How do you identify how a population would change in relation to a predator/prey population?*
- *Essential Question #2: How do you complete a food chain or food web?*
- *Essential Question #3: How do you describe how a plant/animal population changes in relation to the availability of certain resources? (carrying capacity)*

END OF COURSE EXAM

Course Materials:

- Google Chromebook
- 3 ring binder (1 ½" or bigger) with dividers
- Paper
- Pencil or other writing utensils

Textbook:

- Biology- cycles of life

Electronic Resources:

- www.classroom.google.com
- www.docs.google.com
- www.drive.google.com
- www.edmodo.com
- www.studyisland.com
- www.quizlet.com
- http://www.sciencebuddies.org/science-fair-projects/project_ideas.shtml

Course Expectations:

- Students are expected to complete all assignments on time
- Students are expected to actively participate in classroom discussions and activities, Students are expected to monitor their own progress via their Progress Book account
- Students are expected to ask for help when it is needed.
- Student **WILL NOT** use cell phones
- When tests are given students will not talk to anyone who is taking said test.
- Students are expected to come to class ready to work.
- No outside food or beverages will be allowed in the classroom.

Grading:

Unit Exams	50%
Assessments (Including: Quizzes, Essays, Labs, and Projects)	30%
Class work/Homework	20%

- Each nine week's grade comprises 20% of a student's final grade.
- The Mid-Term Exam and End of Course Exam each comprise 10% of a student's final grade.

Grading Scale:

The grading scale for Chillicothe High School can be found in the student handbook or online at <http://www.chillicothe.k12.oh.us/1/Content2/studenthandbook>.

Late Work: Late work will be subject to the Board-adopted policy on assignments that are submitted late (to be reviewed in class).

- Regardless of the absence type (excused or unexcused), students will be expected to make up work and be held accountable for learning all material they missed.
- Any student who is absent from school (excused or unexcused) will have one (1) additional day for every day they missed, to make up his/her work for full credit (100%).
- Any student who exceeds the allotted time to turn in an assignment for full credit may still turn in late work for partial credit.
 - Any student who turns in work up to 1 week late must at least be given the opportunity to earn 75% on that assignment.
 - Any student who turns in work between 1 and 2 weeks late must at least be given the opportunity to earn 60% on that assignment.
- The end of the 9 weeks is the cut off point for teachers to accept late work from students for full or partial credit, unless the teacher decides to give the student an incomplete for the 9 weeks due to extenuating circumstances.

Performance Based Section: Writing Assignments/Exams/Presentations/Technology

One or more of the End of Unit Exams may be Performance Based. According to the Ohio Department of Education, "Performance Based Assessments (PBA) provides authentic ways for students to demonstrate and apply their understanding of the content and skills within the standards. The performance based assessments will provide formative and summative information to inform instructional decision-making and help students move forward on their trajectory of learning." Some examples of Performance Based Assessments include but are not limited to portfolios, experiments, group projects, demonstrations, essays, and presentations.

CHS Extended Standards Biology Course Syllabus

After you have reviewed the preceding packet of information with your parent(s) or guardian(s), please sign this sheet and return it to me so that I can verify you understand what I expect out of each and every one of my students.

Student Name (please print): _____

Student Signature: _____

Parent/Guardian Name (please print): _____

Parent/Guardian Signature: _____

Date: _____