

Boston Collegiate Charter School
11th Grade Biology

Teacher: Meredith Leavitt

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Best time to call: after 4pm

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Tutoring: 3:00- 4:00 Tuesdays and Thursdays

Course Overview:

This course will provide students with an in-depth understanding in various fields of Biology, including Plant and Animal Cell Biology, Genetics, Evolution, Reproductive Biology, and Anatomy. Students will develop and enhance their skills in writing and critical thinking through laboratory investigations, group inquiry projects, and independent research projects. Expectations for course work, both in and outside of class, are rigorous and require a daily commitment in order to stay current in the course.

Blog

PowerPoints for all lessons, as well as a calendar of major assignments will be posted regularly on my blog: www.sciencerulesmylife.blogspot.com

Assessment:

In order to be successful in Biology, students will need to **review their notes each night**. Daily quickie quizzes and homework assignments will assess each student's understanding of material, and will ensure that students are keeping up with their studies. Labs, projects, and group work will supplement lectures, and a major test will conclude each unit.

Grading Policy:

- 15% Homework and Class work
- 35% Tests (around two a quarter)
- 30% Labs and Projects
- 20% Quizzes (daily)

- The 11th Grade Late Submission Policy will apply for all tests and major assessments.

Special Materials/Supplies:

- Students should have a binder with loose leaf paper to keep notes and handouts in.
- Students should have a two-pocket folder to keep old labs, tests and quizzes in.

General Syllabus and Big Ideas:

Cell Structure and Plants: Cells are the structural and functional units of life. A cell's structure and makeup depends on the function it performs.

- Organic molecules
- Eukaryotic & Prokaryotic Cell Structure
- Cellular Transport

Energy in Cells: ATP is necessary for all cellular processes and its production requires specific materials from the external environment

- Plant Anatomy
- Cellular Respiration
- Photosynthesis

DNA and Cellular Growth: An organism's genetic information is stored within DNA and hereditary events control the passage of structural and functional information from one generation to the next.

- DNA
- Protein Synthesis
- Mitosis and Meiosis

Genetics: Through sexual reproduction genetic information is passed from one generation to the next.

- Inheritance Patterns and Human Genetics
- Gene Expression

Reproduction: The forms of the human male and female reproductive organs enable them to perform their functions of internal fertilization and gestation.

- Organs of the Male and Female Reproductive Systems
- Fertilization
- Embryology

Evolution: Genetically determined characteristics of living things change with time, and that change is directed by natural selection.

- Natural Selection
- Populations & Speciation

Animal Form and Function: Organs work together in organ systems to perform functions which maintain homeostasis.

- Human Anatomy
- Rat Dissection