
PETERS TOWNSHIP HIGH SCHOOL

COURSE SYLLABUS: KEYSTONE BIOLOGY

Course Overview and Essential Skills

The purpose of this course is to provide students with remediation for the Keystone exams or to fulfill the graduation requirement of Peters Township High School. If a student does not pass the Keystone exam on the first attempt, remediation before retesting is required in Pennsylvania so that students are better prepared for the exam on the second attempt. This course also allows students to demonstrate proficiency on the components of the Keystone exam to meet the district graduation requirement.

We will be focusing heavily on test taking skills in addition to reviewing the content on the exam in order to help you better prepare for your next attempt at the test. If you are in the course to prepare for a retest, it is very important that you seek help specific to your area of difficulty. For example, if you know that you struggled on the exam due to test taking skills rather than content, you should pay particular attention to these lessons. Ask me a lot of questions and seek help in this area. If you passed module A and not module B, then you need to be very focused on the content for module B. Each of you will have different areas where you need help. This course is an attempt to give you an opportunity to address these areas. It will only be successful if you are honest with me about your areas of struggle and seek help aggressively in those areas.

Course Textbook and Required Materials

- Study Island Website
- 3 Ring Binder for class handouts
- Writing Utensil

Course Outline of Material Covered:

Unit or Topic	Concepts/Skills/Resources	Timeframe
Basic Biological Principles	Characteristics of Life, Cell Types, Cell Structure and Function	2 Weeks
Chemical Basis of Life	Biochemistry, Chemical Reactions, and Enzymes	2 Weeks
Bioenergetics	Cellular Respiration, Fermentation, and Photosynthesis	2 Weeks
Homeostasis and Transport	Homeostasis, Passive Transport and Active Transport	2 Weeks
Cell Growth and Reproduction	Mitosis, Meiosis, Regulating the Cell Cycle and Stem Cells	2 Weeks
Genetics	Mendelian and Non-Mendelian genetics, DNA structure and replication, Transcription, Translation and Genetic Technology	2 Weeks
Theory of Evolution	Basic Evolutionary Theory, Genetic Basis of Evolution, and Evidence for Evolution	2 Weeks
<u>Ecology</u>	<u>Flow of Energy and Matter in Ecosystems, Population Ecology, Succession, Climate Studies</u>	<u>2 Weeks</u>

**Depending on the needs of the class or changes in the school year, the course outline is subject to change.*