

Pecos High School
Biology
1st Six Weeks Syllabus

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| <p>Student Expectations: The student is expected to demonstrate an understanding of the biological processes and characteristics of life exemplified by organisms. Students will recall the steps in the scientific method.</p> <p>August 25- Aug. 29: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: Student will identify the parts of plant and animal cells (eukaryotic) and bacterial cells (prokaryotic). Investigate and identify cellular processes such as energy production and the movement of molecules into and out of the cell.</p> <p>September 1-Sept. 5 Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The student will identify the structure of atoms, molecules, elements, and compounds and how these molecules enter and leave a cell.</p> <p>September 8-Sept. 12: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The student will compare the energy processes of photosynthesis and cellular respiration. The student will investigate how these energy cycles flow from organism to organism.</p> <p>September 15-19: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The student will describe the parts of a DNA molecule and how genetic information is carried in the DNA. The student will also identify how changes in DNA can cause mutations in plants and animals.</p> <p>September 22-26: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The student is expected to explain DNA replication (how DNA copies itself) and how proteins are made by DNA.</p> <p>September 29- October 3: Teacher notes, vocabulary, text book, and ancillary materials, 1st Benchmark</p> |

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2nd Six Weeks Syllabus

Student Expectations: Students will summarize the process of DNA replication. Students will analyze how errors in the DNA are corrected during replication. Students will compare the number of replication forks in prokaryotic and eukaryotic DNA influencing the rate of replication. Students will also relate the role of the base pairing rule to replication.

October 6- 10 : Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will demonstrate an understanding of the process of protein synthesis and that the DNA molecule provides the template for the production of transfer RNA. Also that the RNA molecules is a code for the sequencing of amino acids to form polypeptide (protein).

October 13- 17 : Teacher notes, vocabulary, text book, diagrams, models, and ancillary materials

Student Expectations: Students will relate the role of codons to the sequencing of amino acids according to the Messenger RNA code. Students will analyze the genetic code and predict the sequence of amino acids according to the messenger RNA codons in the manufacture of a protein.

October 20-24 : Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will demonstrate a knowledge of the difference between sister chromatids and homologous chromosomes, haploid and diploid cells, autosomes and sex chromosomes. Also the students will demonstrate an understanding of how the genetic code is passed on to offspring through the DNA.

October 27-31: Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will demonstrate an understanding of the cell cycle by drawing each stage and labeling those drawings. Students will describe these major events of the cell cycle. Students will explain the difference between plant and animal mitosis and the role of checkpoints during the cell cycle.

November 3-7: Teacher notes, vocabulary, text book, diagrams, models, and ancillary materials

Student Expectations: Students will demonstrate an understanding of how chromosome number dictates everything about the organism and how changes in this number will affect the organism. Students will analyze karyotypes to determine changes in chromosome number and orientation

and explain how those changes manifest in the organism.

November 10-14: Teacher notes, vocabulary, text book, and ancillary materials, diagrams, models, 2nd Benchmark

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3rd Six Weeks Syllabus

Student Expectations: Students will identify the father of modern genetics: students will analyze Mendel's studies of genetic traits of garden pea plants and apply their analysis to other organisms.

November 17-21: Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will be able to recognize the different components that make up DNA and be able to recall what function each structure has in genetics.

November 24-28: Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will differentiate between plant and animal genetics based upon the structure and function that make up an organism.

December 1-5: Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students will be introduced to biogeochemical cycles and ecology, which a strong focus on interactions.

December 8-12: Teacher notes, vocabulary, text book, and ancillary materials

Student Expectations: Students should be able to relate biogeochemical cycles to interaction within an ecosystem. Students should be able to identify K-strategist and r-strategist in an ecosystem and well as the role they each have.

December 15-18: Teacher notes, vocabulary, text book, and ancillary materials,

Student Expectations: Students will demonstrate an understanding of symbiotic relationships and be able to apply each symbiotic relationship to examples.

January 5-9: Teacher notes, vocabulary, text book, and ancillary materials: Semester Benchmark

4th Six Weeks Syllabus

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| <p>Student Expectations: The student is expected to be able to define and identify characteristics of Prokaryotic cells and compare characteristics of viruses with prokaryotic and eukaryotic cells.</p> <p>January 19-23 : Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: Students should be able to identify the species of bacteria in the gut of mammals and how bacteria help the digestive process and how viruses can be detrimental to the cell.</p> <p>January 26-30: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: Students should be able to identify the different function that each specialized cell structure contributes to the overall stability of the cell</p> <p>February 2-6: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The students will be able to identify the characteristics of organisms in the Kingdom Protista.</p> <p>February 8-13: Teacher notes, vocabulary, text book, and ancillary materials</p> |
| <p>Student Expectations: The student is expected to be aware of the importance of Protozoan commercially and the disease associated with Protozoans.</p> <p>February 16-20: Teacher notes, vocabulary, text book, and ancillary materials,</p> |
| <p>Student Expectations: The student is expected to analyze the characteristics of Fungus.</p> <p>February 23-27: Teacher notes, vocabulary, text book, and ancillary materials: 4th Benchmark</p> |

Pecos High School
Biology

5th Six Weeks Syllabus

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| <p>Student Expectations: March 2-6: Teacher notes, vocabulary, text book, and ancillary materials TAKS Week (Seniors) March 9-12:(spring break)</p> |
| <p>Student Expectations:</p> |

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| March 16-20: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| March 23-27: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| March 30-April 3: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| April 6-10: Teacher notes, vocabulary, text book, and ancillary materials, |
| Student Expectations: |
| April 13-17: Teacher notes, vocabulary, text book, and ancillary materials: 5 th Benchmark |

Pecos High School
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6th Six Weeks Syllabus

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| Student Expectations: April: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| April: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| April – May : Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations:. |
| May: Teacher notes, vocabulary, text book, and ancillary materials |
| Student Expectations: |
| May : Teacher notes, vocabulary, text book, and ancillary materials, |

Student Expectations:

May : Teacher notes, vocabulary, text book, and ancillary materials: Semester Benchmark