Powell High School
Beth Mooney

AP Biology Summer Assignment 2017

Welcome to AP Biology! This is a college level course; it will be rigorous and demands your time both in and out of the classroom. Your work for this course will begin during the summer to ensure that everyone starts the class with the same prerequisite knowledge. Don't wait until the end of the summer to start this assignment. Start early, enjoy your summer and look forward to an exciting year in AP Biology. You will be tested over this vocabulary the first week of school. You will also turn in your notecards then as well.

Required Text:
AP Biology 8th edition by Campbell and Reece.

General procedures for taking notes on the Campbell text throughout the year:.

1. Read the Key Concepts at the beginning of each chapter. The list of Key Concepts introduces the big ideas covered in the chapter.
2. Browse through the chapter. Look up and define unknown vocabulary terms in your notebook or on notecards by using the glossary. (Look up at least 10 words per chapter, even if you think you know them all).
3. Look carefully at illustrations and read their captions. The old adage of a picture being worth a thousand words holds true for the Campbell text.
4. Read the chapter. Take notes as you read. Making an outline will be a great way to organize the information.

Required materials for class in the fall:

1. Notebook for vocabulary (unless you make notecards which you will want something to hold them), Concept Checks, lecture notes and any other daily work.
2. Lab Notebook- needs to have grids for graphing purposes.
3. 3 Ring Binder
4. Pens/Pencils/Highlighters/Colored Pencils
5. Index Cards

Definition of a complete sentence:
A complete sentence is a sentence that restates the question with the answer so that the reader understands what the original question was. Always use complete sentences in this class. If a question is not complete, it is wrong.

Key terms for answering free response questions:

Analyze- show relationships between events; explain
Compare- discuss similarities and differences
Contrast- discuss points of difference or divergence between two or more things
Describe- give a detailed account
Design- create an experiment
Explain- clarify; use evidence
Predict- tell what you expect to happen when conditions change
Justify- explain why a response is reasonable

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Flashcard Vocabulary Assignment

Use index cards to create vocabulary flashcards for the following terms. This is a highly effective tool for studying vocabulary. You may use any resource and make sure the definition is at an AP level. There will be a vocabulary test at the beginning of school over these terms.

organic compound	ATP
monomer	photosynthesis
polymer	chemosynthesis
chemical reaction	cellular respiration
products/reactants	aerobic respiration
activation energy	anaerobic respiration
catalyst	trait
enzyme	alleles
prokaryote	homozygous
eukaryote	heterozygous
equilibrium	phenotype
osmosis	genotype
facilitated diffusion	nucleotide
selectively permeable	mutation
isotonic	ecology
hypotonic	biotic
hypertonic	abiotic
active transport	invasive species
cell cycle	homeostasis
somatic cells	evolution
gametes	fitness
homologous chromosomes	adaptation
meiosis	natural selection
autotroph	homologous structures
heterotroph	cladogram