

PCB BIO 4 ASSIGNMENT SHEET 1: AUGUST 25-28 2009

Reading, Preparation, Study Questions, Practice Essays, Labs.

ASSIGNMENT	DESCRIPTION
TUESDAY	<p>Hello PCB Bio 4 humans. Today is Tuesday and you are reading your new assignment sheet. You will find your homework for the week on this page.</p> <p>We will discuss all of this in class in case you are struggling to really understand it. Write down questions you have as you think of them while doing your homework. You can always do that.</p> <p>Homework tonight:</p> <p>A: go to the website, www.biologyhuman.com, and make a bookmark on your browser so that you can find it in the future without problems.</p> <p>B: While on the biologhuman page, click on the tab, PCB 334, then on the link "PCB 334 homework submission", which can be found on the left side of the browser window. This is where your home work will be turned in each night.</p> <p>C: Do this homework, submitting it on www.biologyhuman.com by the end of the day (midnight) for full credit:</p> <p>Read chapter 1, up through page 7. Answer the following questions:</p> <ol style="list-style-type: none">1. List and describe the levels of organization found within living things, starting with atoms, ending with biosphere2. Describe the concept of emergent properties. List one or two examples of emergent properties that are not listed in the text.3. Look over the picture and caption titled "Some properties of life." Define define regulation, and take notes on any other terms whose meaning isn't obvious to you.4. Write out one or two sentences describing the following themes:<ol style="list-style-type: none">a. cellular basis of lifeb. DNA and heritable informationc. structure and functiond. interaction of organisms and their environmente. Regulatory mechanisms5. Define taxonomy. Briefly describe three domains and the five major kingdoms into which living things are grouped.
WEDNESDAY	<p>In chapter 1, read page 8-9 and chapter 13, read 255-261. Answer the following study questions:</p> <ol style="list-style-type: none">1. Define evolution.2. Describe/define/explain how each of the following relate to evolution: Aristotle, reiligous theology, taxonomy.3. What was the leading evolutionary theory before Darwin? What were the two main points of Lamarck's theory?4. What are the two key points of Darwin's Origin of Species?5. Describe Lyell's influence on Darwin.6. Who was Alfred Wallace, and what was his influence upon Darwin?7. Explain artificial selection, and describe how it led Darwin to his notion of natural selection.8. Use natural selection to explain how the two mantids on p. 259 became so extraordinarily camouflaged.

THURSDAY	Read pp. 262-265 List the evidence for evolution and explain why it is evidence.
FRIDAY-SUNDAY	Homework ("Intro to Ecology"): Read pp. 746-747, and 752-755. Complete the following study questions: <ol style="list-style-type: none">1. Define trophic level, and describe at least three trophic levels in a typical ecosystem.2. Compare/contrast a food chain with a food web.3. What are the three main ecosystem process involved in energy transfer and chemical cycling?4. What is primary productivity?5. Define biomass. How is it usually measured?6. What is the 10% rule?7. What is ecological efficiency? Why is it so low?8. Describe the carbon cycle.

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