

PNB 2250 Blog Assignment (*Kristen Kimball and Donnasue Graesser; University of Connecticut*)

From the syllabus:

**Design Your Animal Blog (100 points)-10% of grade**

Each student will design a type of animal and choose an environment/climate in which that animal lives. Four times during the semester, you will post to your DYA blog on HuskyCT. Your post will describe general physiology and adaptations that your animal might make based on the information you learned in the preceding units. Your blog posts will be guided by questions asked during each unit.

We have included instructions for 3 of the 10 blog posts – the first one, a “mid-course” example and the final one. We also had a “Makeover” blog post in which students could rewrite one of their posts for a few extra points. The first post contains detailed instructions for all blog posts. We had four due dates – for each due date students submitted the required number of posts.

**FIRST BLOG POST:**

The first posting to your DYA blog is due on **Sunday, June 14**. Each Unit will include questions for you to answer within your blog posts. You may post after each individual unit, or you may choose to answer the questions from several units in one post. The number of entries to your blog is up to you. However, by June 14, you must answer all the blog questions from **Units 1-4**.

Keep in mind, you will not be able to edit your blog entries once you submit, so you may want to draft your blog posts in word or notebook before submitting them to the blog.

**Blog scenario and Questions for Unit 1:**

You are an scientific explorer on a mission in hopes of finding new plant and animal life. You are very excited to come upon a unique animal that has never been described before. What a great discovery! Scientists are anxiously waiting for news of your discovery on your blog.

In your blog posting for Unit 1, please answer the following questions:

- 1) In nature, where does your animal live? Describe the environment in which you found this animal including:
  - a) What is the climate?
  - b) Does the animal live in water (saltwater? freshwater? brackish water?) or is your animal terrestrial?
  - c) What depth or altitude does your animal live in?
  - d) Anything else you want to tell us about your animal's habitat?
- 2) What is the size of your animal? What are the advantages/disadvantages associated with this size. Be sure to keep in mind the unit 1 readings as you answer this question.

**MID-COURSE BLOG POST:**

This blog post is due on **Wednesday July 8, at 11:59pm**, and includes questions from **Units 9 & 11**.

**Blog Questions from Unit 9: Digestive System**

- 1) What factors related to the environment and physiology determine survivability for your animal? Be specific, I am looking for something that pertains to your animal, not to animals in general.

2) Which of the three major mechanisms that we discussed in class does your animal use to collect food. Describe whether your animal is an herbivore, carnivore, omnivore, detritivore, or filter-feeder. Also describe one special, specific adaptation that your animal uses.

3) Describe the foregut, midgut, and hindgut of your animal-- describe both the anatomy and the physiology. Not just what the structures are, but what is going on in those structures.

4) Describe the symbiotic bacteria in your animal. In which part of the digestive system do they reside, and what functions do they carry out?

### **FINAL BLOG ASSIGNMENT:**

This blog post is due on **Thursday July 9, at 11:59pm**, and includes questions from **Units 9 & 11**.

#### **Blog Questions from Unit 9: Energy Balance and Thermoregulation**

As your mission to find new plant and animal life comes to a close, we have really enjoyed learning about the fantastic new animal that you have discovered.

1) Your mission is ending because you need to get back to UCONN to present your scientific findings at the beginning of the semester in January. It's the middle of the winter, and it's cold and snowy back in Storrs. **At this time of the year** (meaning in January, and not at other times of the year), what is the temperature range in your animal's natural habitat? Is it significantly different during the day vs. night?

2) Which of the following terms describes your animal? Endothermic, Ectothermic, Poikilothermic? Homeothermic? Heterothermic? You can answer with one term (or more than one term if applicable). **BRIEFLY** define the terms you use. Should not be a long explanation, but each term can be defined in a sentence. Points will be take off if you add information beyond the terms and definition.

3) Two zoos are very interested in acquiring your incredible newly-discovered animal! You must send the animal to the zoo before you end your mission, so the animal will be arriving at the zoo in mid-January. You only have permission to send one animal, so you must choose one of these two zoos: The Bronx Zoo, which has an average temperature in January of 4°C/39°F, or; The Tampa Busch Gardens Zoo, which is averaging 29°C/85°F this January. Which zoo have you chosen to send your animal to? (your choice is not being evaluated in your grade-- you can chose either zoo at random, I'm just giving you two options for your animals "new" temperature).

Assume your animal will be kept in an outdoor enclosure, how will arrival at the zoo affect your animal's internal body temperature (or not)? What physiological mechanisms will your animal use to regulate its heat in this new habitat (**remember:** gain, retain, generate, lose)