

I. Introduction to the zoo lab

- A. The zoo lab replaces lab during the week of fall break. It can be completed any time between now and then, but all paperwork is due in lab the week of 10/17 with no excuses!
- B. The purpose of the zoo lab is to introduce you to vertebrate diversity, adaptations, and behavior (mostly of mammals, with fewer reptiles, birds and amphibians; the zoo doesn't have fish or jawless vertebrates).
- C. The graded work consists of 2 parts:
 1. The zoo visit and questions in "Vertebrate Diversity & Adaptations" will be turned in as "**Zoo Writeup, Part 1**" and constitute **homework 5**, worth 10 points.
 2. The "**Zoo Writeup, Part 2**" constitutes **quiz 5** and is worth 20 points, apportioned as follows:
 - a. "Distinguishing the Vertebrate Classes" is worth 12 points.
 - b. "Research" questions" about zoological parks is worth 8 points.
- D. Mechanics:
 1. You should read all the questions you must answer before you go to the zoo so you know ahead of time what to pay attention to.
 2. You should tour the entire zoo and take notes on answers to the questions as you tour the exhibits. An efficient way to do this is work your way clockwise around the zoo from the main entrance. The major exhibits are marked on the map you will receive with your admission to the zoo.
 3. You will write up your work using a word processor (standard homework formatting rules apply). Divide your work into 2 sections: "Zoo Writeup Part 1: Vertebrate Diversity and Adaptations", and "Zoo Writeup Part 2: Distinguishing Vertebrate Classes and Research". Within each section, answer the questions in order, clearly indicating which answers correspond to which questions. An easy way to do this is to restate the question as part of each answer (e.g., when answering the question about you favorite mammals, you can start the answer "My favorite mammal was . . .").
 4. Include a list of resources used to complete the assignment. You need not site the interpretive signs at the zoo or your textbook. Hint: you will probably want to visit the zoo website at www.virginiazoo.org.
 5. You are encouraged to team up for the visit and share observations, but you must complete your own work. No copying allowed!
- E. Other:
 1. You are responsible for your own transportation. Admission is free with your ODU student ID card. The zoo is open 10:00 a.m. to 5:00 p.m. every day; directions are available on the zoo website.
 2. No outside food is allowed in the zoo. There are places to buy snacks, drinks, and fast food (burgers, pizza slices, etc.), but they're a little pricey.

3. You should allow a minimum of 2 hours to complete the tour; wear comfortable shoes and dress appropriately for the weather.
4. The gardens are beautiful, so take a few minutes to observe the plants as well as the animals!
5. If your fall break takes you out of town to someplace with a zoo and you'd like to visit that one (the National Zoo in Washington, D.C. is awesome!), you are free to do so. Alternate instructions are included throughout the handout.

- II. **Zoo Writeup, Part 1: Vertebrate Diversity and Adaptations** (homework 5, 10 points). Answer the questions based on your observations and the interpretive materials provided with the exhibits. Write your answers as complete sentences.
- A. Try to spot the tiger. What adaptive benefit do you think its bright, striped coat provides? (Hint: you might want to try looking at the tiger through the bamboo outside the exhibit) **(1 pt)**
 - B. Examine the eagles and the other birds of prey (they're in separate exhibits). List one trait you can observe that you think are adaptations for being predators. For each, briefly state what you think its function is and why (If I were answering this for a wolf, e.g., I might say that I think the long, sharp teeth are adaptive because they help the wolf grab and kill large prey). **(1 point)**
 - C. Pick 2 species, each from a different vertebrate class (i.e., bird, mammal, reptile) from the Okavango Delta or Tsodillo Hills exhibits. For each, answer the following questions: (4 pts per species, as indicated below)
 1. What is its common name and scientific name? **(1 pt)**
 2. Is it rare, threatened or endangered? If so, what is the most important threat it faces? **(1 pt)**
 3. What is one adaptation it has to its particular ecological role (describe the feature and its function)? **(1 pt)**
 4. Of the features and behaviors you can observe, what is one you'd like to know more about? Answer by describing the feature and what you'd like to know about it. **(1 pt)**
 - D. ***If you visit a different zoo:***
 1. If the zoo you visit doesn't have tigers, just add one more animal to part C -- pick one bird, one mammal, and one reptile. If the zoo has tigers, complete the question as asked.
 2. If the zoo you visit doesn't have birds of prey, pick any predatory species except wolves instead and answer the question. Be sure to state what species you're describing.
 3. For part C, the zoo you visit obviously won't have those specific exhibits, so just pick any two species from different vertebrate classes and answer the same questions.

III. **Zoo writeup, Part 2:** (quiz 5, 20 points)

- A. **Distinguishing the vertebrate classes** (12 points - 3 points per animal). Pick your favorite mammal, bird, reptile, and amphibian from among those you observed. For each, state the animal's name and answer the following questions (1 point each):
1. What characteristic(s) make it a mammal, bird, reptile, or amphibian? You will need to list at least two characteristics – see text sections 18.15-18.19 for help.
 2. Why it was your favorite (be brief, but be more descriptive than just “it’s so cute”)
 3. What was it doing when you observed it.
 4. ***If you visit a different zoo:*** no alterations to the above are necessary.
- B. **“Research” questions** (8 points). Answer each question in a single well-written paragraph, being sure to address each point (not necessarily in the order presented in the question) clearly, completely, and concisely (we don't need to read books!). Hint: you can find the answers to these questions from the Virginia Zoo and American Zoo and Aquarium Association web sites. Your answers here are based on the factual accuracy of the “fact” portions and the thoughtfulness of your answers on the opinion portions. “Thoughtful” doesn't necessarily mean long – you should be able to answer each questions in 3-4 sentences.
1. (3 points) The Virginia Zoo is accredited by the American Zoo and Aquarium Association. What does that mean (i.e., what does that tell you about the zoo)? Do you think accreditation is important? Why or why not?
 2. (2 points) Many of the signs on the exhibits in the Okavango Delta and Tsodillo Hills exhibit have a logo and the words “Species Survival Plan” on them. What does that mean? (Hint: a Google search on “species survival plan” will turn up all the information you need in the first 5 returns – your answer will probably be best informed if you read a couple of different ones).
 3. (3 points) According to the Virginia Zoological Park's mission statement (look at the last sentence of the first paragraph on that page on the website), the Zoo has four main functions. What are they? Which one is the most important to you personally? Why? (Yes, you can have more than one “most important”). If you had the money to spare, would you make a donation to the zoo? Why or why not?
 4. ***If you visit a different zoo:*** no alterations to the above are necessary.