Name(s)  Maya Z. Angelo  

Project Title  Animals vs. Humans: pH Balance  

Objectives/Goals  
The purpose of my project was to find out whether an animal's pH balance is higher than a human's throughout the day so that I could prove that an animal's pH balance is higher than a human's throughout the day.

Methods/Materials  
I used a Litmus Paper pH Testing Kit showing the range of color from yellow to blue measuring the pH level (5.0 - 9.0) of saliva. I tested (10) subjects, (5) humans and (5) animals (combination of omnivores, carnivores, and a herbivore) for five different trials. I used surgical gloves for cleanliness. The litmus test strip was placed on the tongue of each subject. The test was done every two hours starting at 8:00 AM until 8:00 PM. I also interviewed a veterinarian, Dr. Javier Nolasco, DVM and Tarini Fernando, Veterinary Assistant, VCA Parkwood Animal Hospital. Also, I interviewed a dentist, Dr. Joe Sciarra, DDS, Pediatric Dentistry.

Results  
After testing my animal and human subject's pH levels on five separate trial test days, I concluded that my five animal's pH levels were, in almost all cases, higher than the human's throughout the testing. I even studied the pH levels before and after eating. The final test analysis proved that my hypothesis of an animal's pH level being higher than a human's is correct.

Conclusions/Discussion  
I learned that the animals test results were reading in the alkaline range regardless of eating or drinking. The final test analysis proved that my hypothesis of an animal's pH level being higher than a human's is correct. It's important that animals and humans have a healthy pH balance. The pH level shows how the enzymes in your stomach, liver, pancreas are working. A low pH (below 6.5) level can cause germs and disease to grow. A high pH (over 6.8) level can end up being bad too because it causes too much gas & constipation. When the saliva is not acidic or alkaline, it is balanced. It is better for the body to be a little alkaline (over 7.0). If I used vegetarians, a rabbit, or cows, their level would be in the high pH range. After my interviews, I learned animals, overall, do have a higher alkaline then humans. Of course, wild animal's and herbivore's pH would be different because they eat differently. I learned that animals don't really have a cleaner mouth than humans (human's brush their teeth everyday). I learned animals don't have a special chemical in their saliva to help heal their wounds, they only lick their wounds to clean them.

Summary Statement  
I think the pH balance of an animal is higher than a human's throughout the day.

Help Received  
My mom checked grammar and board. She also drove me to the veterinarian & dentist offices so I could interview them. My parents supervised me when I tested my animals.