



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Kathryn E. Anderson	Project Number J1302
Project Title Testing and Comparing the pH Levels of Canine, Feline, and Human Saliva	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals This project was designed to test whether dogs, cats or humans have more acid (a lower pH level) in their saliva.</p> <p>Methods/Materials After receiving a signed waiver, saliva samples were taken from 78 dogs, 53 cats and 106 humans using mouth swabs and pH test strips. The color change was compared to the pH key and the appropriate number was then entered into the spreadsheets. The results were sorted, analyzed and averaged.</p> <p>Results Results showed that for humans, the pH ranged from 5.5 to 8.0, with a mean of 7.01; for dogs, the pH ranged from 5.0 to 9.0 with a mean of 7.97; and for the cats the pH ranged from 7.0 to 9.0 with a mean of 8.1. This showed that the cats tested had similar saliva pH to that of dogs, and significantly higher saliva pH than that of humans.</p> <p>Conclusions/Discussion This is different from my hypothesis that dogs would have more acid (a lower pH level) in their saliva than cats and humans. All the literature ranked the pH of cat saliva to be very similar to that of humans, not dogs. Perhaps this is because dogs and cats both lick their fur, transferring substances from the environment to their saliva.</p>	
Summary Statement My project is designed to determine whether dogs, cats or humans have on average a lower pH level (more acid) in their saliva.	
Help Received I designed the experiment and did all testing myself. Mr. Shavelle helped me understand charts and statistics. Mrs. Taylor and Mrs. Pannell helped with editing and formatting. Mrs. Anderson helped with scheduling and transportation.	