**Student:** Daniella Hurst

**Course Title:** 7th Grade Science, Family 1

**Teacher:** Aaron Dobie

**Class Description**:

In 7th grade science this summer we focused on the study of biology, the subject Denver Public School students study in the seventh grade. Under the umbrella of biology we began the summer with photosynthesis – the process by which plants make their own food out of water, carbon dioxide and sun energy. We then studied food chains, food webs and how energy is transferred between different trophic levels – producer, primary consumer, secondary consumer, tertiary consumer – of the food chain. In addition to photosynthesis and food chains we learned some “how to” skills such as identifying experiments’ independent and dependent variables, graphing experimental data and labeling graphs’ x axes, y axes and titles. Students got to record and graph their own data in experiments such as “Does a person’s head size affect their 40 yard dash time?” During the last week we synthesized all of the summer’s ideas into the “Solar Oven Experiment” where students created their own solar oven out of a pizza box, aluminum foil, saran wrap and tape in order to harness the sun’s power and cook pizzas and s’mores. The ovens got as hot as 180°F. In addition to cooking food we tested whether black ovens worked better than white ovens. Students kept track of their ovens’ internal temperatures and graphed the black ovens’ temperatures side by side to the white ovens’ temperatures to decide which colored oven was more effective. The black ovens worked better. Students had to complete a final packet for the “Solar Oven Experiment” and show an understanding of all parts of the scientific method – asking a question, making a hypothesis, writing experimental procedures, gathering materials, recording data, graphing the data and interpreting their graphs in a paragraph-style conclusion.

**Academic Performance**:

Daniella is a very gifted young lady – brave, smart and full of potential in the classroom. She consistently turned in science homework everyday although sometimes the assignments were partially incomplete or appeared to be completed in a hasty manner. Daniella received the equivalent of an A- on the Photosynthesis Test at the end of the 3rd week, which is a good grade. However, I felt that with a little more study time the night before she could have taken her grade from good to excellent. I encourage Daniella to look over her notes the night before a test because it will her help her to retain the information for longer than just one day.

By the end of the summer Daniella showed improvements in her knowledge of the inputs and outputs of photosynthesis as well as the relationships of trophic levels in a food chain. She had a bit of trouble with exponential growth and formatting a graph’s axes but if she continues to take science classes in middle school and high school then she will have plenty of practice. On that note, I encourage Daniella to take the most challenging courses available at Kipp and at whatever high school that she attends. With a mind like hers she is capable of success in any difficult course and as a quick learner I know that she gets bored when she is not challenged. I encourage her to keep challenging herself to do her best in school.

For the majority of the summer Daniella was polite and well behaved. Toward the end of our 6 weeks together she frequently complained about what we were doing in class and had a negative attitude about learning. I encourage Daniella to always keep a positive attitude about learning in the future; even if science is not her favorite subject she needs to be able to fight through the pain and enjoy her other classes.