**Student:** Rosa Flores-Torres

**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**:

Bright-eyed, comfortable in her own skin and extremely respectful of everyone around her, Rosa was a pleasure to teach this summer. Rosa has a naturally inquisitive mind and this asset allowed her to ask great questions all summer long. And in a class that sometimes got a little rowdy Rosa was a calming force who could stay focused but also laugh along with her friends.

Rosa had a respectable work ethic this summer. Though sometimes she completed her science homework at breakfast instead of at home it seemed that she dedicated a portion of every night to studying and completing Breakthrough’s assigned work. Faithfully doing her homework every night will help her out immensely in 7th and 8th grade and in high school, too. If there is one piece of advice that I offer to all middle school students it is to stay on top of their homework.

On the third day of class we took a science pre-test and then took the same test again during the last week to gauge how students’ scientific understandings had improved. Rosa’s score improved between the first and the second test. She demonstrated a complete knowledge of the inputs and outputs of photosynthesis and an ability to graph data and predict the behavior of an exponential graph.

I hope that Rosa takes the most challenging classes that are available at her middle school. She is an incredible young man and is surely capable of achieving whatever she puts her mind to.