

Nishi Anthireddy - My NSF APNA experience

I first learned of the NSF APNA program from my father, who introduced it as a wonderful way for me to improve my public speaking skills. I normally shy away from speaking in front of large groups, which was why I originally didn't want to participate in the program. However, I changed my mind when I thought about how this was an amazing opportunity. I would be able to gain more confidence when talking to groups of people, and I would also be able to share knowledge with other people. My mind immediately jumped to the benefits this would provide college-wise, but after spending 1 day with the students, I completely forgot about that aspect. I decided to conduct a week-long science workshop for an hour each day, at the Jawahar Navodaya Vidyalaya.

I was able to talk to Mr. Vamsee, one of the science teachers at the school and coordinated with him. He guided me through the process, at times making suggestions and telling me what the students would be more interested in and what would be more helpful to them. He also told me that for my workshop, I should be working with 10th graders. I was slightly apprehensive, considering the fact that I was going to be younger than them, but he assured me that they would be completely respectful and cooperative. I discussed my outline for the workshop with him and then, on the Saturday before I started my workshop, I went to the school and worked on perfecting two experiments with Mr. Vamsee. I was planning on presenting those two experiments during the workshop, and we conducted the experiments around 15-20 times, so that we were able to get the best results.

While we were driving to the school on the first day, I was very worried in general. I thought that the students wouldn't be able to understand my accent, or that they wouldn't find the content interesting. When I walked in to the class, however, I was set at a little at ease. The students all stood up and greeted me and some of them waved hello. After Mr. Vamsee introduced me to them, two of the students presented me with a beautiful handpicked bouquet of flowers.

On the first day, I introduced the NSF APNA program, and went over some guidelines for the Google Science Fair. Then, I had each student stand up and say their name and something that they liked to do in their free time. Most of the students said that they liked reading, dancing, playing cricket, or drawing. I also explained the outline for the workshop and the experimental design rubric. The first day finished a bit ahead of schedule. Due to my nervousness, I sped through my material. On the last day, some of the kids even said that on the first day, they didn't really understand what I said, but were able to from the second day on.

On the second day, I explained the experimental design rubric a bit more thoroughly. I used two different questions as practice (ex:- How does the angle of the incline of a ramp affect the speed of a ball rolling down it) and went through the rubric with them. I also explained the elephant toothpaste experiment to them - the experiment we were going to perform that day.

The students filed into the chemistry lab, visibly excited at the fact that they get to perform an experiment. Mr. Vamsee and I had decided to split the class in half, because the original strength (43 students) would have been too much to fit in the chemistry lab. I explained the experiment and conducted it in front of them to show them the procedure. I was met by



awe-filled gasps as the foam rose out of the beaker and started overflowing. I then explained the concepts behind the experiment - catalysts, decomposition reactions, activation energy, etc. I asked the students to fill out the rubric using the experiment we performed that day.

On the third day, the students and I went over the rubric in a question and answer format, and I also introduced the second experiment - the Magic Milk experiment, that we would be performing on the 4th day.



On the fourth day, we conducted the magic milk experiment. I was met with the same awe-filled gasps when the colors started to spread. I supervised while they were doing the experiment themselves, joking

around with them a little. The students asked me how old I was, where I was from, and what grade I was studying. I talked to them a little bit and got to know them after the experiment was over and we had some leftover time.

On the fifth day, we all moved into the auditorium because I was planning on conducting a quiz on all of the concepts I had taught them. They were all extremely competitive and each correct answer led to loud cheers from the respective groups. After handing out chocolate to the top 3 groups. The principal presented the kids and I with certificates of participation. Afterwards, all the kids came up to me and wished me luck and told me that they were incredibly happy with this experience.

I replied that I was incredibly happy with this experience as well and that I



hoped they were successful with anything they attempted. I loved this experience and I thank NSF APNA, Mr. Vamsee, the students, and my father for making this workshop possible. I hope that this impacted the lives of the students in a great way, as it did mine.