

Corn Starch Monster Reflection!

Possibly the most important question when reflecting on our project is whether or not our build worked the way we planned it to. As it is with any science project or experiment, the answer is no. Our final product is only remotely similar to our original sketches. Through the process of building and experimenting, we went through about five different speakers, a few amps, and several gallons of cornstarch and water. At the beginning of the project, we planned to not only make corn starch monsters, but also a second visual piece using Styrofoam and a clear pipe. After almost setting our first amp on fire, blowing a few speakers, and getting yelled at by angry siblings, we decided to just stick with the corn starch monsters. Even then, we barely finished on time. Our first idea had been to use a normal speaker system, but with the burning amp and other issues, we decided it would work best to find some subwoofers that had been taken out of a speaker. We also got the help of one of our classmates who provided us with an amp that wouldn't spontaneously combust in the middle of exhibition. Now that we had all the materials, the next problem was to make the cornstarch monsters themselves. We had a pretty big speaker at this point (about a foot diameter), and we had a few minor issues with getting enough plastic wrap to cover it. Once we did, we poured some cornstarch and water on the speaker and played some tunes off an iPod. Nothing happened.

We convinced ourselves that it was the wrong mixture, so made some more. Again, no corn starch monsters. We then decided that not attaching the plastic wrap to the speaker was making the sound waves vibrate the plastic wrap instead of the corn starch. Also, Heerschap told us that we needed a single tone, not a song. We came back the next day armed with a roll of double sided tape and the URL of a website with an online tone generator. We wasted the next hour sticking ourselves, plastic wrap, and generally anything other than the speaker to our double sided tape. When we finally managed to get some tape on the speaker, after first lining it with normal tape then putting on the double tape, we stuck some plastic wrap to the speaker, poured an incorrect mixture of water and cornstarch on the speaker, and watched in awe as nothing happened. The next day, while messing around with a smaller speaker that we also brought in, we discovered that it actually vibrated way more than the larger speaker. Excited, we efficiently stuck the plastic wrap (and about twenty other things) to the speaker. We poured on some cornstarch mix, and saw the beginnings of our first corn starch monster. In order to further refine them, we consulted one of the sophomores who made corn starch monsters last year. He informed us that our mixture was way too thick. We added some water, and saw our first corn starch monster. All that remained was to put the speakers in the table. Now that we are finished, after hitting all of these snags, it is pretty clear that our build didn't go as planned. From our original picture, we went from a speaker with Jell-O and cornstarch on it to a table with a speaker and a tube full of Styrofoam to a desk with two corn starch monster speakers on top and an amp inside.

Another thing that we thought about for this project was how it reinforced the content that we have learned so far this year. For our project, I actually found this question to be fairly easy to answer. The entire sound project was based around sound waves and how they are created and heard. The main way that sound waves are made is by an object vibrating. Our project uses these vibrations (in our case

from a speaker) to make corn starch form into shapes. So, basically what our project does is provide a visual for sound waves. We planned to make a second visual (the Jell-O and Styrofoam tube), but ran out of time.

If I could do this project again, I think I would focus on the Styrofoam tube instead of the corn starch monsters. While the corn starch monsters are interesting and cool, plenty of people have made them. The Styrofoam tube is much more original, and most likely, just as engaging. Also, I would have felt that our final product was more ours, seeing as we didn't really build anything other than the table for our project.