

PUSD Middle School Robotics Program

Visit to Caltech

April 10, 2012

Katie Stack and Jen Griffes

Two 20-minute presentations to about 15 students each

For PUSD Middle School Science Day 2012, Jen and I gave a 15-minute PowerPoint presentation, followed by a 5-10 minute show-and-tell session. I started the presentation by introducing myself, where I'm from, where I went to college and what I studied, and how I got interested in geology and planetary science. I then briefly mentioned some of the sports and activities that I like to do outside of school. I introduced the concept of sedimentary rocks and the environments in which they form, and then put up a list of the tools that geologists use out in the field. At this point in the presentation, I did a show-and-tell of geology field tools. I then transitioned into talking about geology on Mars and the tools that scientists use to study geology on another planet. Jen talked about the family of Mars rovers, and then we described the Curiosity rover, its landing site, and our involvement on the rover team and helping to select the landing site. I wrapped up the presentation by showing pictures of our lab group at JPL as the rover was being built, and then pictures of our lab group at the rover rocket launch. We then invited the kids to come up to the front of the room and look at the field tools and our Mars rover props.

Show-and-tell props:

Geology field tools: rock hammer, Brunton compass, map and map board, hand lens, headlamp, field notebook

Mars props: to-scale model of Gale Crater landing site, replica of a Curiosity rover wheel, JPL outreach rock kit containing rocks and minerals that we might encounter on Mars

Comments:

-The student groups didn't have teachers with them, just parent chaperones that weren't entirely sure what was going on. It would have been helpful for me to have a better idea of what follow-up activity the students were responsible for (written or otherwise) so I could have helped them complete their worksheets.

-We had the first group of students for longer than we had expected (45 minutes instead of 30 minutes) so it would have been good to have back-up slides of cool Mars images that I could have pulled up when I needed to get their attention.

-The first group of students we had (15-20 students) was really too large to do a show-and-tell with, and it was difficult to keep track of who had the props and what they were doing with them. Also, there were several students who decided not to participate in the show-and-tell and stayed at the back of the room, but since there were no teachers in the room it was difficult to get these students to participate. The second group of students we talked to was smaller (10 students), so the show-and-tell was more successful/manageable.

-During the show-and-tell time a few of the boys got hold of the projector remote control, and started to shine the laser pointer in each other's eyes. Remember not to let middle school boys get their hands on laser pointers!