

Poly Boy Scout Troop, 5th graders
April 12, 2013
15 scouts, 1 dad, 4 moms, 2 older scouts
2:30 - 4PM
Renata Cummins, Erin Burkett

Renata, "Continental Drift - putting Pangaea back together"

First I said to pretend that you have a pet lizard. Then I asked whether the lizard could follow you if your family moved to San Diego, or if your family moved to Spain. I wanted to make the point that a lizard could cross long distances across continents, given enough time, but that lizards cannot move across oceans. Then I showed a picture of two fossils of the same reptile species that were found on South America and Africa, and asked how we might explain these fossils. The boyscouts already knew that you could explain them if the two continents used to be next to each other. Then the boyscouts did a puzzle where they try to fit together the continents into Pangaea using clues from the fossils found on each continent. They colored the fossils using colored pencils, and glued the continents onto a piece of tagboard when they were done. Then I showed them the TO movie of how the plates have moved between the time of Pangaea and now. I also showed the TO movie of India crashing into Asia to make the Himalayas, and explained that the motions of the plates aren't smooth, but they move in jumps, which is what earthquakes are. Finally, I showed them a map of the boundary between the Pacific plate and the North American plate, and explained that LA is moving slowly towards San Francisco.

What worked well:

The boyscouts liked the puzzle. A few of them had trouble getting all the pieces to match up, so it wasn't super easy. A few of them were worried that the continents did not fit together perfectly, so I got to explain that in science, things rarely ever work out exactly right, we just have to make our best guess. They also really liked both of the movies. They asked me to re-play the movie of Pangaea splitting up.

What I would suggest for next time:

Next time, I would skip the lizard example. The boyscouts had too many good ideas about how the lizard might run into trouble following you, or could jump on a plane to cross the Atlantic Ocean. They got too excited about their ideas to understand the point of the exercise, and they also didn't seem to need this piece of information to understand that seeing two of the same fossils on either side of the ocean means the continents must have been touching each other. Next time, I would hand out the puzzle pieces instead of putting them on the desk ahead of time. The boyscouts got too excited trying to put the puzzle together that I didn't have time to explain the instructions. I also really need to think of a

good idea for things to do while some students are waiting for the others to finish. Some boyscouts were happy to draw sea monsters in the ocean next to Pangaea, but others were bored.

Next time, I would try to find a movie of the Pacific Plate moving along the North American Plate. I would also include a slide showing what the plate configuration will look like in the future, because the boyscouts seemed curious about that. A movie or a diagram explaining why earthquakes happen, due to the buildup of stress, and then finally slipping, would also be helpful.

Finally, next time, I would not make such a big deal about the earthquake machine. The blocks are pretty cool, but they are less exciting if you're a 5th grade boy expecting to get to experience earthquake shaking and destruction.

Erin: Seismo Lab Tour

I first showed and narrated/described the Seismology 101 presentation on the Earthquake Exhibit computer. Intermittently I asked the kids questions such as how they think of and describe earthquakes and plate tectonics (had them describe the processes and I refined the concepts when useful). I described the different types of seismic waves, veering from the presentation at this point and having them do the lining up seismic wave interactive demo (a kid on one end initiates a P wave as a push that propagates down the line, and the first kid in the other line initiates an S wave by pulling the hand/arm of the neighbor down and then up, which propagates down the line). The kids then got to make their own earthquake by jumping and registering on the screen in the exhibit hooked up to the lobby seismometer (some kids discovered this earlier, however, and there was some disturbance in trying to keep them paying attention to the focused discussion!). Near the end we went up to the Media Center room where I described what the room is for, showed the ShakeOut wave propagation simulation, briefly described the early warning system since it actually came on to alert for a tiny earthquake (we didn't feel it but the alert itself was exciting), and ending with the earthquake machine demonstration.

Comments by Laurie K:

They were a pretty lively bunch. I think next time we have 15 boys and no teachers, we'll divide the group up into two smaller groups. Also, I am going to add two more rules to the list I give the groups. So besides

- Quiet in the hallways
- Walk, don't run

I am going to add

- When asking and answering questions, raise your hand
- Don't touch unless you've received permission

And I'll write these on the board if need be!