

## 24: 8th Science Density PostInterview

- Speaker 1: I tried to keep it really relevant from the very beginning to hook them in first, and I needed them to understand that they're going to be using this information later on, not only the next day, as an extension to this assignment, but later on in the school year, we're going to have to come back to this. We're going to refer to it all the time. I needed to make sure that they understood these basic concepts. Even if today they only got the concept of, "Oh, heat comes to the top," or "The cold water tended to sink." Even if they just picked up that from today, it's fine, because we're going to touch on that later.
- Speaker 1: I think the students need a challenge. They don't want to be given the answers, especially for something that's student-driven. They want to be able to discover it on their own. I have to really tell myself, "You want to prompt them, you don't want to guide them." I, a lot of times, answer their questions with other questions to get them thinking in the right direction rather than giving out the answer, giving out the content, the concept. It's more of a student investigation than me saying, "Here is what you do."
- Speaker 1: The setup of the classroom or the lab is very important, because this lab has a lot of movement. If you have students walking around with tubs filled with water, that could spell disaster very easily. I was really strategic in my placement of the tables. Specific groups, I assigned them to certain sinks, to make sure that there was not a lot of commotion, not a lot of traffic, there were no things to trip on. I had everything laid out. [00:02:00] I spaced apart the different waters. I kept it on the side so there wouldn't be a big group of students hanging out or waiting in line. Everything is spaced out to avoid those possible areas of misbehavior.
- Speaker 1: I guess from the start of the year, the students have an idea of what I'm already expecting, and I stress during the lab even more that there's no playing around. We're here to have fun, but they got to learn, and they have to be safe. I'm pretty strict during a lab, especially when there's things like boiling water. There's a zero tolerance policy for that. I had to make sure that I was clear on the instructions. Everything I wanted them to do to get to their goal, the rules, the procedures on how to pour in the water, it all needed to be laid out clearly, or they're going to get confused. When there's confusion, downtime, you're going to get a lot of misbehavior.
- Speaker 1: I think they were totally engaged. I could see it. Some of them were jumping up and down, they figured it out. Some of them were frustrated, from the very beginning, and I was picking up on that. I let it go, because eventually their teammates pulled them together. They started to open up a little bit more, and a lot of them actually got there. Even if they didn't, they learned at least one thing. They can carry it over to the next day when we come back to this, and they'll have that in their data to start. At least they'll have a head start toward the goal. I think they like the challenge. They like being challenged, they like the feeling of it's not just a simple answer you can find in the textbook. They have to do it. They have to accomplish a goal. It's not just finding the definition, but it's can they recreate the tank. Something important for me, who's facilitating this lesson and presenting it, I have to be enthusiastic [00:04:00] about it. I

cannot be, "Okay, here's what you're going to do," because if I'm not excited about it, I'm not going to pull their attention in. I need to make sure that I am the one who's building up that adrenaline, building up the one more time, the excitement to get them to want to do the end product.

Speaker 1: I did hear a lot of discussion about students who went swimming, and they said, some of them talked about hot air balloons. They mentioned, "Oh yeah, on the mainland, hot air balloon. They shoot up hot air, and it makes the balloon rise." They're using their past experience, their knowledge. There are a bunch of people that mentioned the beaches. They said, "Oh, yeah, when you're on the surface of the water, it feels warmer," and when they dove down, they noticed it got cold. They were pulling from their experiences, which is totally relevant to their lives, especially here in Hawaii.