

25: 8th Science Tides PreInterview

Speaker 1: I created this lesson more like a wrap up to our earth, moon and sun interactions unit. I chose the tide calendar because it's something that they can all relate to. They've all gone to the beach and it shows a lot of patterns. The moon, sun, and earth interactions are all synchronized. It's actually set for the future. A lot of the kids don't realize that they can actually predict the tides tomorrow or the next day or even the next year. It really highlights how the patterns change from day to day. We refer back to everything that we've been going over such as moon phases, eclipses, and the tides as well.

I would hope that by the end of this lesson, the students will get more repetition. They'd be more of a review, recall a lot of the older information and it's more of an application. So how do we apply all of the concepts that we just went over to something that we can all relate to? Since most of them go to the beach, they can all, next time they get there, they can think back, oh yeah, the tide is kind of low today and it kind of rings a bell. Oh yeah, we did learn about why the tide is low around this time.

What the students are going to be doing is looking at the tide calendars and trying to identify patterns. First we're going to teach them how the tide calendar works, the parts of the calendar, and then they're going to try to observe as the days go on, the months go on, look for patterns and things that do involve movements of the moon and the earth and the sun. I really intend to kind of scaffold up to this part because it's tying a lot of the older things into it. We're going to refer back to gravity, we'll [00:02:00] refer back to inertia, all things that we've been doing in the past couple quarters and really tie all together using just one booklet.

During any activity, I'm always walking around. I'm always eavesdropping on different discussions, small groups, I'm scanning around the room. I'm looking for students who maybe appear confused, not really understanding or if I see a student is actually getting it, moving fast, maybe there's a major misconception going on so I go and monitor them. The foldable, the graphic organizer that they will be doing toward the end of the assignment, I'll look over that and make sure they have a grasp on that concept.

From the beginning of the school year, we set the ground rules for my classroom. Students know how they should be interacting with each other, respectfully, especially in a group discussion. They know where supplies are if they need to use them for a certain activity. All of that is already known so the work was already done for that. For this activity, I want to make sure that I'm walking around and paying attention to different groups. If one group may be fooling around, it's my responsibility to make sure they're back on track. If a group seems confused or if they just seem like they don't want to do it, I will guide them more in the right direction and redirect their attention.

In the lesson, I'm going to attempt to group them randomly and a lot of times that poses a risk. You're not sure which personality types are going to get grouped together and it's going to be by their birthday month. I really have no control and I don't know yet who is going to be sitting with who but, in any case, I just have to be more aware of what's going on in each group. Some groups might be larger, some groups might have one or

two students so in that case I've got to quickly [00:04:00] think on the fly and accommodate. I might have to split one group into two, or take other measures.

One of the main questions I would pose to the students in this activity would be can they identify patterns? A lot of students have trouble looking at a graph or a chart and they can't make any sense of it. They have no idea what it's showing. They see a bunch of lines, a bunch of numbers and they're like oh, that's complicated. My goal is to teach them how it works and for them to look from day to day and see the differences and understand the differences so not only can they identify the patterns but also can we discuss ways how to tie it back into our big objective which was how does it relate to the movements of those three objects, the earth, moon and the sun?

I think the first hook to make this activity engaging is just drawing them in, getting their interest. It comes from just talking story, about the beach, drawing some of their experiences in. I would throw in a lot of key words when I pose questions such as okay, I want you guys to now discover. I want you to identify or try and find these patterns. It's more of kind a like a challenge. If I don't show interest or if I don't show that I want to challenge them with something and I don't feel like they can do it, they're not going to be interested and they're just going to think it's a boring day at school and they'll just go through the motions. But if I bring in that energy and I actually get them excited about what we're doing in school and why does it actually matter, then I feel like they'll be more into it mentally and even physically moving around.

Most of the lessons that I try to do, I'll [00:06:00] normally start off with a really broad question, something that's it's like a yes or no where most of them can relate to. For example, most of the kids here in Hawaii have been to the beach, so we'll start off just talking story about the beach. Then I'll pull up a memory oh hey, what happened this one time? Did you notice that the water was higher or lower? The rocks were sticking out. It was all kind of dry looking. Then we'll go from there. Then we'll get into more specifics about, did you ever wonder why? Is it just random or is there a sequence? Is there a set pattern that occurs for why the water is getting higher and lower? I also mention to a lot of these kids from Hawaii, a lot of them they go surfing, they go diving, they go fishing so I can relate to them that every time you go you should maybe check out the tide calendar and have an idea of what's the water going to be like. It's know for what's going to happen next week, what's going to happen tomorrow. You don't want to go diving on a nice high tide because the water's going to be dirty.

Also fishing, we go back to I kind of mentioned things that they should have learned last year in Life Science about food webs and how a lot of animals actually hunt or hide during tide changes, which can affect the whole ecosystem. We try to tie in a lot of other science concepts, not just the same one or the target that we're doing for that one day.