

HS Natural Resources pH  
Pre-Interview

Interviewer: Why did you choose to teach this lesson? [inaudible 00:00:03]

Teacher: I chose this lesson due to the fact that this class, their whole emphasis is on hydroponics. We've been running the hydroponics system for about six months now and they've been doing well. There have been challenges and their most challenge is how come the lettuce is burning. We found that their TDS and their pH levels have been off. Today we're going to revamp that. We're going to go back and retest to make sure they understand the knowledge. They're going to do a mini lab where they're able to test the pH, test TDS, understand what the range is supposed to be for different vegetable crops. Then they'll actually go out into the greenhouse and test their actual products going. While some are testing, that's how I'll be assessing individually. Others will be planting soy beans, planting lettuce, and mixing fertilizers for their next crop.

Interviewer: [inaudible 00:01:05] What are the learning outcomes for the lesson? How are they related to the larger [secret 00:01:05]?

Teacher: Due to CTE and the natural resources field, they have to be able to do crop production. Hydroponics is one of our number one crop productions besides our traditional farming. The outcome is making sure that they're able to ... How should I say this? To manage a crop on different testing levels. If the testing levels are totally off, their crop will not survive. They have to know what the correct levels are supposed to be to make sure that crop is a hundred percent sufficient for production to go up to sale.

Interviewer: ... How would you describe this lesson as meaning, useful, or relevant to students?

Teacher: This lesson is a hundred percent relevant to them because if they don't do it correctly, they will see the effects visually with all their vegetable crops that they're growing. If they don't understand the concept, then they won't understand the larger scale production. The mini concept goes larger scale as well. If they can do it in a small range, they can do it in a big range as well.

Interviewer: Do you see this hydroponics or these skills associated with students' lives outside of school?

Teacher: I do. If any field that they go, they have to be able to listen to directions, follow them, and follow procedures. As long as they can follow these procedures, their vegetable crops will grow efficiently as well as whatever outside live things. As long as they can follow procedures, follow directions, they'll be set to go.

Interviewer: What are the big questions you're using to drive student discussion?

Teacher: Student discussions pretty much going to be we're going to reflect on our year. They can tell me what they believe is working, what's not working. They'll also be able to tell me

... They should be able to tell me what the TDS scales for each vegetable crop should be, why it should be like that, the effects if the TDS is too high, the effects if it's too low, as well as pH high and low.

Interviewer: How are you planning to check for understanding or assess student outcome?

Teacher: We'll be doing a mini lab as well as going out to the actual 100-foot greenhouse to work in the hydroponics systems.

Interviewer: I forgot to mention it's totally okay to repeat yourself. If the questions calls for it or whatever so-

Teacher: Sounds good.

Interviewer: But don't feel bad.

Teacher: Sounds good.

Interviewer: Don't feel bad at all [inaudible 00:03:21]. How would you describe the lesson as engaging for students?

Teacher: This is a total hands on lesson. They'll be working in small groups to test the difference scenarios that are given to them. During that time, they're able to help each other, they're able to have discussion, and then they're able to go out. They'll break up into little groups to get other jobs done as well as I'll individually call students to test each tank to make sure that they understood the concept of the lesson in the lab.

Interviewer: How do you plan to manage student behavior throughout the lesson starting with expectations?

Teacher: My students all understand my expectations. I treat this place as if it's a work facility. I give you directions once. After that, you follow your job lists and then you get your jobs done. Behavior should be down to a minimum. Everybody should be good. If not, I just give them a warning and then after that it's grounded or punishment. Also during this time, I do do two classes, so I will be going back and forth between the two classes.

Interviewer: Awesome.