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Video-taped lesson

Did you demonstrate an understanding of the subject matter/content you were teaching?

Yes, I believe that I demonstrated understanding of the subject matter both during planning for the lesson and during the actual teaching of the lesson. While teaching the lesson I was able to speak about Pangea, when a student began to discuss how the continents were once one large block of land. I was also able to help students discuss the portions of land on earth in which plants don't grow as well, at the poles, in the tundra, and in the desert. Finally, I was even able to make connection between soil and Ancient Greece, explaining how Ancient Greece had poor soil to reinforce the concept that very little soil on the earth is appropriate for growing plants.

Did you provide clear explanations of the goals and objectives for your lesson? Did you select appropriate instructional activities aligned to your instructional goals?

I believe that I nicely introduced the lesson by recapping the lesson from the day before and asking students to help me remember what we had a read a story about the previous day. I then went on to say that we would continue our study of soil today. Perhaps I could have better illustrated the objectives of the lesson, but I did not want to give too much detail because I was fearful that students would be less engaged if they knew each step of the lesson before it began. Therefore, I made a decision to simply comment that we would be continuing our study of soil.

What evidence did you find to indicate your students were actively involved in their learning?

Throughout the lesson students followed directions, paid attention, and tracked me as I walked about the room. The students were also willing to participate in discussions and answer questions about the Apple Earth activity. They seemed very engaged and very much surprised to hear that so little land is suitable for growing plants. When I finally cut the apple into 1/32 the class gasped and some shouted "woa". One student even proclaimed, "We can't live on that". It was quite apparent that he had understood the most important concept of the Apple Earth activity. During the section of the lesson in which we used interactive notes, students remained attentive and followed directions as I asked them to highlight pertinent information. Though the interactive notes portion of the lesson was not as engaging as the Apple Earth, I was pleased to see that students were still motivated to learn. Students were perhaps most engaged during the Soil Study portion of the lesson, in which all students were able to make observations about soil they had collected at home. Students were coming up with wonderful descriptions of the soil,

depicting it as "powdery, smelling of the woods, fluffy, and smelling sandy". When looking at the soil with their magnifying glasses students were certainly focused on their learning and motivated to make observations. The portion of the lesson further impressed upon me the important of incorporating inquiry and authentic materials into science lessons whenever possible.

Describe the effective teaching strategies you found evident in this lesson. What questioning strategies did you observe? Do you believe they were effective?

The incorporation of the apple demonstration, interactive notes, and inquiry based soil activities differentiated the lesson for all learning styles. I particularly found that the demonstration involving the apple and its representation of the earth was a very effective way to model the importance of conserving our soil. The gasping and surprised facial expressions caused me to realize that the students had not been aware how little fertile soil there actually is on earth. I believe that the demonstration will certainly stick in their brains, far more than reading aloud a passage on soil for instance. The inquiry based Soil Study was also effective in that it encouraged students to think more about the different types of soil. Though we had not yet described the different types of soil, the activity allowed students to explore the types in advance so that they had a pictorial representation when we did learn about the types.

During the lesson I asked several questions. When implementing the apple earth activity I asked "If ¾ of the Earth is covered with water, how much is covered by land?" and "How many parts do I need to divide the apple into to cut off ¾ of the apple?" Both of these questions connected our soil study to our previous fraction unit. When discussing how very little soil is suitable for plants I asked students if they remembered that Ancient Greece had very poor soil, asking them what crops they could grow. I then went to ask "If there is so little land that contains good soil, what do we need to do?" The student answering the question had the exact answer I was looking for "conserve". Overall, my questioning was very effective. However, I need to remember to call on students who do not have their hands up as well as those who do. I called on several who did not have their hands raised, but most of the students I chose to answer had their hands raised.

Describe the assessment strategies you selected for this lesson. Do you think they were effective?

Throughout the lesson I used questioning and discussion as a formative assessment to gage student understanding. I also observed students as they highlighted their interactive notes to make sure they were on task and attentive. Finally, I walked around the room to describe students as they studied their soil. I plan to assess their understanding of the importance of conserving soil and types of soil in the form of a unit test on Soil.

Describe the classroom climate. What type of rapport did you see yourself having with your students? Did you demonstrate effective routines and procedures?

I have worked hard all year to develop a positive rapport with my students and I feel that this shines through in my lesson. There is a positive learning environment in which everyone feels comfortable with one another. Additionally, the students respect me as their teacher and look to me for confirmation. I believe I used appropriate classroom management techniques and that students transitioned well from activity to activity. I used positive reinforcement to praise students as they transitioned. Ex: "Table 1 is ready, so is Table 2, oh and 3, and 4".

Summary: How did you do? What do you believe were your strengths and weaknesses of this lesson? If you could make some changes, what might you do differently next time?

Overall I was pleased with the lesson. The students seemed very engaged and motivated to learn throughout the lesson. I was especially pleased to hear their surprised when we finished the Apple Earth activity, feeling that the lesson had made an impression upon their thinking. Additionally, I was proud of myself for making connections to Ancient Greece during the lesson. I had not planned to make the connection and was excited when I was able to make a teaching moment and connection between Science and Social Studies. In previous lessons I had not used appropriate wait time, but I believe that I improved upon this weakness and used an effective amount of wait time throughout the lesson.

If I were to tweak the lesson I would make sure that I had enough time at the end of the lesson to share our observations about the soil. Unfortunately I tried to cram several activities into a very small amount of time and we were late at starting the lesson due to students returning from reading groups. Buses were called and students had to pack up before I was able to ask students to share and discuss their observations. Thus, I would be sure to either move more quickly through a previous section of the lesson if I were presented with another time crunch.