I’m so thankful to OSTA and the Fall Conference. Thankful because after the years of masking, vaccines, and upheaval within education these past few years, it was incredibly refreshing to experience the beauty, the excitement, and the joy of science simply for science’s sake. My colleagues and I at Crook County Middle School had the privilege to attend the conference as a team, and we walked away feeling grateful that we were able to prioritize scientific learning and instructional strategies that would directly benefit us as science teachers; not online teachers, not Google Classroom teachers, science teachers. In the spirit of getting back to meaningful science in, and outside, the classroom, I’m grateful and excited to make my instruction better than it’s ever been.

I was inspired to become a science teacher from my own experiences as a learner in a place-based outdoor education program that blended hands-on science, local literature, and outdoor recreation. I swore to myself that I would establish a science program that would prioritize hands-on outdoor learning that leaned heavily upon the local assets of the community. Full admission: I have not done that. Delaney Sharp’s session titled “Developing Place-Based Field Study Programs” allowed me to give myself some grace as well as some inspiration and strategies to make it a reality. The first, and most important, thing that I learned is to start small and build the program over time. I tend to dream big with programs like these and then inevitably fail to follow them through as the details and challenges overwhelm my time, energy, and resources. Delaney reminded me that by starting small and simple, we can increase the chances of establishing a foothold and thereby decrease the chances that the program will fade away or be shut down when circumstances change. Another valuable insight that came from Delaney’s session was to simply identify the local assets at your disposal, and then also be sure to identify potential barriers to implementation. With our assets and barriers lists complete, my teaching partner and I are in the process of planning a field study based upon bird species at the Crooked River Wetlands Complex in partnership with the Prineville Bird Club. From conversations with Chuck Gates, Prineville Bird Club President, we’ve learned that bird numbers are decreasing at the wetlands, which presents a challenge for our students to study and ultimately engineer solutions to address the issue.

One of the great things that I enjoy about spending time with other science teachers at OSTA is that I get the
opportunity to rethink and improve strategies that I already use. Chris Hedeen and Kate Fisher, teacher ambassadors with HHMI BioInteractive, led an excellent session titled “Improving Math Literacy Using Data Points from HHMI BioInteractive”. My students become very familiar with all sorts of graphs in my 7th grade science class. Who doesn’t love reading and interpreting a good graph? I made the decision to prioritize data interpretation a few years ago, and I’m quite proud of the routine and supports that I’ve created along the way. But that doesn’t mean that there isn’t room for improvement! Chris and Kate showed me two strategies that I already do, and one thing that I could do to help my students get even better. Step #1: Identify – What do I see? In this step students answer the basics: what is the title, x-axis label, y-axis label, scale. Step #1 is something I feel that I do well in supporting my students. Step #2: Interpret – What does it mean? This is the interpretation part. Students try to tell the story of the data. What is the takeaway message? These first two steps are what I felt that I do well in supporting my students, and can be seen in the bottom left image. Step #3: Write a Caption. Chris and Kate had a simple scaffold like the one pictured in the bottom right image that guided students through this process. This is what I was missing! My students were reading the data and interpreting what it meant, but I was missing an opportunity for my students to practice summarizing and communicating their understanding. I could see this step as a highly scaffolded support early in the year and gradually remove the supports as the year and their skills progress. This third step also gives us an opportunity to support the work done in their language arts classes by practicing the skills of creating a coherent paragraph complete with punctuation and proper grammar.

Thank you once again for an incredible experience at the Fall Conference. I didn’t realize until after the conference had concluded how much I had missed focusing on science and science instruction for its own sake and for the love of science. As science educators, we have an unparalleled opportunity to inspire a passion for science in our students and future leaders. Sometimes though, we need to be reminded of why we decided to take on this honorable task, and how to do it better than we alone imagined that we could.