

Oregon Coast STEM Center PBL Project Overview Section 2

Name of Project: Native Plants and Songbirds

Name of Teacher(s): Rodger Johnson

School & District: Toledo Jr/Sr High, Lincoln County School District

In addition to the online PBL Project Overview, please describe the following in no more than 3 paragraphs per section.

1) How the Project was Conceived and Planned

This was my first year teaching Jr. high science in our school. My principal wanted me to use the science course to help change our school's climate and give kids an exciting jr. high experience. I started by assessing my strengths as a teacher to help me choose a topic. I have a lot of success and student interest in my high school ornithology and bird watching class, so I decided to set my focus on birds and the native plants they depend on.

Before the school year began, I started planning the activities I wanted to include in the project. I knew I wanted to include a native plant garden on our school's property. Our school district recently passed a bond measure and we had some capitol upgrades at our school. In the process of new construction, they clear-cut the trees around the school and bulldozed away all the topsoil, leaving us with nothing but erosion-control rope and sprayed-in non-native grass. Our native plantings would help to attract birds back to our school's property. I worked on getting plants donated to the school, as well as compost and mulch. I made connections ahead of time with groups for field experiences and guest speakers, such as the Oregon State Parks, Oregon Coast Aquarium, Eddyville Charter School, and the OSU Master Gardeners.

Finally, I found and adapted some high school botany and bird curriculum to give the kids background information on the research topic.

2) How the Project was Managed

I started the year with a field trip to the Oregon Coast Aquarium, where we were given a guided tour of the native plant landscaping. The kids were excited to learn how the landscape had changed at the aquarium from sand dunes to the beautiful park-like setting it is today, and quickly started talking about how they would do the same on our school grounds.

Next, we started on the background information curriculum. This took about two months, with some field trips interspersed to help the stay interested in the project. We did two trips to the Beaver Creek State Natural Area to plant trees as part of a habitat restoration project. The kids also collected GPS data and height of each of the trees to work with at a later time.

After finishing the background curriculum, each student chose a native plant and began a research paper describing their plant and its connection to a local migratory songbird. They worked on this paper in both their science class and language arts class, giving them a solid 3 hours a day to work on it with the assistance of two teachers.

Finally, we made a native plant garden on the school's property, each student planting 2-3 plants- the very ones they researched in their paper. Our last trip was to a nearby school where students presented their information to other jr. high students.

3) Your (or your team's) Reflection on the project after completion. Include what went well, what might be improved or changed if you were to do this project again, and what the most important student learning was.

It was GREAT. Kids that were tough to engage in other classes loved working on this, from getting dirty with their plants to their research papers. Before doing this again, I will work more on my background curriculum and strengthen my connections with collaborators. I will also add more of a math component to the research paper. I would like the kids to find the growth rates of their trees, and determine the size of their tree by the time they graduate in 4-5 years.

4) Attach any student work samples, products, photos (that you have permission for), or additional documents you would like posted on the website with your Project Overview.

Email your Project Overview as a PDF, this document and any attachments you'd like to include to Ruth.mcdonald@lincoln.k12.or.us.

Your final \$750 pay will be processed as soon as it is received.