

Partners in Education



I would like to thank the Cascade Conservation District again for the grant they awarded me. Your grant helped me provide my students with the opportunity to learn about plants and participate in activities that would help them understand how plants grow and understand how different colors, soils, and plant foods can affect their growth. The students completed different experiments from February to May using our school greenhouse. We would not have been able to perform these experiments during these times of year without your assistance. The money you awarded us through your \$500 mini grant provided me with the means to build germination chambers so the students could grow plants during very cold weather.

The students were expected to follow the scientific process during their activities and write down all their observations during the activities they performed. The sixth grade students planted their seeds in three different potting soils purchased at a store and soil from Vaughn. They then watered every seed the same amount of water and we kept all the seeds at the same temperature in the germination chambers. They found out that the plants grown in the potting soils produced plants very similar in size. They also determined that all of the potting soils produced better plants than the plain dirt they found in Vaughn.

The seventh grade students planted their seeds in the same type of soil, same amount of soil, and watered with the same amount of water and different plant food solutions. They also had to read and follow the directions pertaining to how often they could water the plants with the plant food solutions. I helped them mix the solutions, but the students completed all other steps themselves. They determined that Miracle Grow seemed to produce better plants than the other plant foods and the plain soil that was obtained from the town of Vaughn.

The eighth grade students planted their seeds in the same amount of soil, same type of soil and watered them with the same amount of water. They then placed them in the germination chambers and we covered the chambers with different colors of polycarbonate siding. They determined that the clear colored and white colored sidings helped produce similar sized plants, but they both did better than the grey colored siding.

I will use some of the same experiments next year, but they will be implemented with different classes so the students will not repeat experiments they have already completed. I will also be looking for new experiments to introduce to the students too. Overall, the unit was a success and the students continued to ask me if they get to work in the greenhouse again next year. The pictures that are shown below show the chambers I built, the students working in the greenhouse, and many of the plants that they grew. Thank you again for the funding you provided to build the germination chambers, they protected the plants from the cold weather we encountered during the experiments.

Sincerely,
Thad Wollan

