

Environmental Education Committee Agenda/Minutes 2023-2024

EE Committee Mission- To support EE Goals and Initiatives

Meets the 2nd Tuesday of every month.

Norms:

Stay on task, if off task put drink or prop in the middle of table

Be on time, if not you will be clapped for

Time keeper- Claire

Recorder- Melanie

Attendance Taker- Melanie

Facilitator-Melanie

EE Committee Meeting Goals:

-monitor EE goals monthly

-initiatives

Norms:

Be on time. Stay on task. Assume positive intent. Have fun!

October 10th-

Attendance- Claire, Colin, Lisa L., Joe, Lance, Melanie

We have a guest speaker today, David Wilson from Happy Dancing Turtle is here to teach us more about our aquaponics system. -

First, we need to calculate the gallons of water - a good stocking density is 1 fish per 8 gallons of water. We need to add more fish, because our plants will be nutrient deficient if we don't have enough fish. Fish should be fed 3 times a day. Make sure it is a good high quality food. That will provide the fish with the nutrients that they need that way your plants have what they need. Tetra Pro goldfish crisps. No copper sulfates inhibit germination. An auto feeder would be a good idea so that they are fed as needed. Don't have to worry about the ammonia - it will almost instantly convert into the nitrates for the plants. For every 1 cubic foot of water you want 1 to 2 cubic feet of media (grow stones). Our media looks ok- more is better. We could reduce our water level to help with our nutrients. We need an automatic bell siphon 1 inch pvc pipe in a 2 inch pvc pipe normally you want the water level 1 to 2 inches below the surface. You can buy 1- should be as tall as we want the water level to be. 2 " above where the water level should be. That siphons into the tank that then gets pumped into the big tank. Put the pump in the tank then have a header line - then it siphons out into the diary water then into the big tank. Lower the lights. 14-16 hours of light is what he would recommend. If the moisture level is higher it would take on more light. We added some rock gravel- could just use the grow stones. Leca- lightweight expanded aggregate, the surface area gives the roots something to hang on to and it's pH neutral so that it helps with the ph of the system. Periodically check our ph and ammonia and nitrate level are lower- probably check every 3-4 weeks. Every 3-4 weeks add DTPA Chelated iron buy from the aquaponics store 6% and 10% add a little bit of both. Add a little bit of epson salt (a small handful) every 3-4 weeks. Add molasses (black sap) 1 tsp per gallon count to 4-5 then swirl then add again. If you want to adjust PH use phosphorus acid

and magnesium. Try to keep it around 6.9-7.0 However, his tanks typically have a ph of 7.5-8/i just like ours do. Use a stick to swirl around anything that you add so the fish won't eat it. Sunfish and goldfish are good for the tank. Contact the DNR, we can hold our limit as long as someone has a valid fishing license. So we can catch unfish and put them in the tank. If they are in a bag then you can have them acclimate to the water temperature. We can add duckweed to the top of the tank. We can add some of our veggies so give them a more diverse diet. We can just collect. We'd need some sort of screen so that it wouldn't clog. He can come back and help as needed. We can come to the Happy Dancing Turtle to see their system too. He works 8-4:30 .

Next steps we have some things that we need to order, so we need to make a priority list. 1st on our list is a fish feeder. He has some high quality pumps that he can get for us.

Goals- Osprey Wilds has accepted corrections. Mindy had a guest speaker out to teach her students about pollination and bees.

EE Initiatives- Solar Update- Melanie has reached out to Crow Wing Power- next steps is to talk to the Lakes Foundation.

Recycling- Ordered recycling containers so there are more of them around the school for easier access.

Phenology - School forest - Did we get in touch with a naturalist?

Solarium-

Melanie is trying to find spots for the desks in the solarium- our storage is full. Hopefully we can get it set up soon for morning meetings. Will purchase some grow lights for the soil beds and raised beds.

Shelves are free of plants and ready for more student projects.