

## SCIENCE Domain

B. Life Sciences Skills --Prekindergarten children are naturally curious about the characteristics of organisms. Children understand differences in living and non-living things.

End of Prekindergarten Year Outcomes

VI.B.1. Child observes, investigates, describes and discusses the characteristics of organisms.

The child:

- describes color, size, and shape of organisms.
- describes animals' needs for food, water, air, and shelter or plants' needs for water, nutrients, air, and light.
- compares differences and similarities of animals (fish live in water, dogs and cats have fur, all birds have feathers).
- uses the tools of science (hand lens and measurement tools) to observe and discuss plants and animals. The teacher:
  - models and provides opportunities (comparing flowers, insects, and animals) and tools (hand lens) for children to make comparisons of living characteristics and non-living characteristics.
  - discusses and provides organisms for observations of animal habitats, movements, and characteristics (ants, pill bugs, earthworms, mealworms, and caterpillars).

We set up two aquariums last year at North ELC. One was in my PPCD classroom, the other was in the Science Lab for all the children at North to enjoy. We used the aquarium to reinforce the above skills.

- The children will observe the fish: counting them, naming the color & sizes. We could also talk about positions –Ex: the fish is behind the blue plant.
- The children daily feed the fish with the assistance of the staff. We daily talk about the need for food, water, shelter to survive. The children also help when we clean the aquarium or when we need to add extra water. Unfortunately the children also learn that sometimes animals die; those were buried in our flower garden.
- The children could use the aquarium to learn that fish live in water. We always keep books about fish near the aquarium, so the children can learn to generalize that all fish need water to survive. We also have fish puppets, pictures, posters, and small fish manipulatives.
- There is a container of magnifying glasses near the aquarium. The children learn to use these to find and observe the fish in the tank. Children are encouraged to talk about what they can see. We use a language model where we strive for five verbal exchanges between child and staff, so each time we talk to the children, we add more information about fish and their environments.

Since we live very close to the shore and several rivers, we can also talk about real life experiences with fish too. Ex: "Who goes fishing?" "Did you see any fish at the beach?" "How did you catch your fish?" While working on language exchanges, we can also talk about how fish move, letting the children imitate their movements.

In addition to working on the above Science skills, we also use the fish aquarium to help our children with Autism learn to relax. We teach the kids to go to the aquarium and watch the fish, when they feel themselves unable to cope or focus in the classroom. They love to stand and watch the fish – it has a very calming effect on them. They usually are able to rejoin the other children and complete their work.