Biodiversity and Pollution

Eco-School Topic:
Biodiversity and Pollution

Grade Level:
Grades K-8

Standards:
3.5 Living Systems
3.10 Earth Resources

Lesson Objectives:
Students will...
1. Learn the basic premise of a food chain and biomagnification.
2. Understand the side effects of pollution
3. Have an opportunity to discuss other known food chains and points of inter-connectivity.
4. Discuss pollution that they have seen.
5. Evaluate ways they can decrease pollution.
6. Be active and increase teamwork skills.

Links:
[Shark Fish Algae Instructions](#)

Materials:
- Marker
- Dry-erase board/ chalkboard/ large piece of paper
- Something to identify safety zones & middle of the room (Tape/String/Cones)

Engage
- *What does the food chain process look like?*
- *What happens when there are pollutants in the water?*
- ✓ Game: Shark Fish Algae (See link)

Explain & Explore:
- Play Shark, Fish Algae Game
- Then discussion-
- *What is a food chain? Where do humans fit in? Should we reconsider what level of the food chain we choose to eat at?*
- *Why is it that algae beats shark?*
  - Due to biomagnification (the build up of pollutants as one moves up the food chain), if there are pollutants in the algae and the fish eat lots of algae, they will accumulate more pollutants and the shark will have the most pollutants because they eat multiple fish.
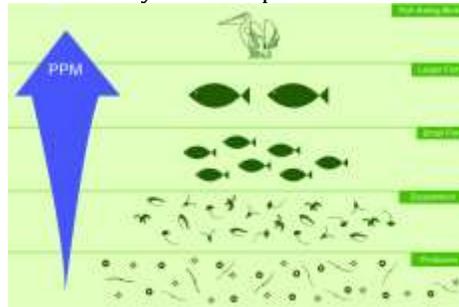
- *Where do pollutants come from? How do they get in algae? What are pollutants we see (plastics)?*

Evaluate:
- ✓ Assessment: Each student will write down one thing they learned on one side of a cut-out fish and on the other side what they plan on doing to reduce pollution
- ✓ Pre-post with three questions
  - What is biomagnification?
  - An example of a food chain?
  - What is pollution?

With a little bit of knowledge, we can ESLI make a difference