

The Environmental Chain

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When I was a little girl I used to love to look in my mother's jewelry box. While peering through it one day, I found a stunning, glistening pearl necklace. This was no ordinary pearl necklace it had beads of various colors. I asked my mother about the necklace and why it looked so different from the others that were in the box. She gently set me on her lap and whispered that there was an amazing story behind the necklace. With excitement I looked closely at the pearls and was able to see that each one held each other together much like our environment is held together by the biotic and abiotic factors within it. Every one of those precious pearls represented a different aspect of our actual environment. If one of the pearls were to fall off then the entire necklace would eventually break.

First my mother showed me a majestic blue pearl that was much like the rivers that flow into our oceans. As I looked closer at the pearl a picture began to form before my eyes. Suddenly the once blue river started to turn brown and murky. I asked my mother why was it changing and she pointed to actual trash that was floating in the river. I also saw trash and also along the bank. I didn't understand how this could be. My mother explained that litter comes from many sources. It could be as simple as a gum wrapper that slips from your hand and ends up beside a river. You might think that it is

just one wrapper but imagine thousands of people dropping one wrapper on the ground. They could all end up by our rivers. Gum wrappers are a foreign substance that are not biodegradable which means they could remain on land for many years contributing to the harmful effects that litter cause to our environment.

My mother also told me that storm drains could carry litter from other places to rivers. Storms themselves could carry trash from uncovered cans and deposit it in and on river banks. I was shocked when my mother told me that people actually use the shores of our rivers as a dump site for trash! It saddened me to learn these facts but it was important for me to keep listening and learn the effects of litter.

Eventually litter affects the aquatic animals because they could eat the trash and since it is a foreign substance that trash could affect their digestive system causing extreme damage. A chemical affect changing the biological make-up of species could also occur. If one of these species happens to be a fish or some other type of animal that humans eat then guess who is going to be negatively affected? Mercury in fish is a proven example of a biological effect that is extremely harmful to pregnant women. If a pregnant woman consumes too much mercury that can be found in fish then it could cause birth defects in her unborn child. You may think that you could just catch fish from the ocean but guess where the river flows. The harmful damage caused to rivers will eventually reach the ocean and have the same horrible effects.

The second pearl my mom showed me was a beautiful emerald green pearl. She said that it represents the plants and animals whose habitats are near the rivers. Plants grow in soil and chemical break down of litter will eventually mix with the soil causing it to become contaminated. The nutrients that were once abundant in the soil will be or depleted or compromised causing plants and trees to die. What may be worse is polluted water from the rivers would be absorbed by the plants possibly making them harmful to the individuals that eat them. Consuming such plants by an animal that is eaten by its predator will result in three living organisms infected by the contaminated water which would possibly end in death to them all. If an animal or plant in an ecosystem ceases to exist then the entire ecosystem is doomed.

The final pearl my mother showed me looked like polished crystal. It represented the air in which we breathe. I wondered how the air was tied to the river but she quickly explained that it had to do with the water cycle. The contaminated water evaporates then that gas forms into a cloud which will eventually come back to earth as rain. The clouds alone are harmful because they are part of the atmosphere in which we breathe in oxygen, but the rain could spread toxins to places far from the river and begin to affect many ecosystems.

As my mother concluded her story of the pearl necklace, I realized how important each part of our environment is. If one pearl breaks, the entire environmental chain

collapses. The most critical lesson the necklace taught me is that just like the pearl necklace, being the only one of its kind in her jewelry box, there is not another earth in our galaxy. If our environment starts to fail because of the pollutants that people cause then the earth will cease to be a habitable place. It is our responsibility to take care of each pearl around us. We only have one necklace and unfortunately, we cannot go to the jewelry store to buy another one.