April 2013 Issue

TRASH TALK

Written and Published by the Grades of Green Youth Board of Advisors Newsletter Committee

Student Spotlight:

YEA-EUN HAN

INTERNATIONAL SCHOOL YANGON,

Yea-eun Han is a High School student who would like to teach children about the environment at the international school, Yangon, in Myanmar, China. Yea-eun is passionate about the environment and how to protect it for future generations. Yea-eun aspires to be an environmental science teacher for elementary students, hoping to inspire young minds to grow up caring for the environment. Yea-eun Han is a volunteer with Habitat for Humanity and a member of the SEEDS for change program at her school. For fun, she enjoys reading, watching movies, and playing bassoon.

Yea-eun created an environmental club called Seedlings, which is similar to SEEDS. Her club focuses on holding after school activities with younger elementary school students to teach them about the basics of the environment. She is going to teach students about the 4Rs (Reduce, Reuse, Recycle, and Rot), and she will start every lesson with a current issue related to the environment. Here are some fun facts about Yea-eun:

She found the Grades of Green website while researching for her AP environmental science class, and later she thought joining Grades of Green youth board and sharing ideas with others would help her with the projects that the environmental club at her school is pursuing.

For her career, she wants to work for the administration sector, possibly one concerning the environment. She has traveled out of the country, but would like to go to the Arctic and enjoy the beautiful scenery there before climate change takes over. Since Yea-eun is the only member from abroad and consequently she doesn't have many opportunities to interact with other Youth Board Advisors. She hopes we can all know more about each other through this newsletter and perhaps even other events in the future.

Staff photo, Yea-eun Han

BY MAX AND REECE RILEY

Save the Date!

4/11: VERTE Fundraiser
4/13: LACSD Tabling Event
4/20: Youth Board led E-waste Drives
4/21: STAR Eco-station Earth Day
4/22: Earth Day!
4/27: VOICE Manhattan Beach Earth Day

For more information on any of the above events or to RSVP please contact Allie at AllieB@gradesofgreen.org!

Q & a WITH GRADES OF GREEN

BY SAMANTHA TORRES

Q: Why do leaves change color in the fall? - Carina Hurok, Meadows Elementary

A: In the summer when the days are long the leaves are green because they are full of chlorophyll. More sunlight means leaves make more chlorophyll. In the fall the days are shorter and there's less light. So there's less chlorophyll in the leaves. As the amount of chlorophyll in the leaves falls from the shorter days in fall, the color changes from green to yellow, red, orange, or brown.

Q: How do plants get food? - Emily Lovkin, Meadows Elementary

A: Most plants do not "get" food. Most plants make their own food. Food is made in the leaves. The plant takes in carbon dioxide through its leaves. The carbon dioxide mixes with water taken in from its roots and the chlorophyll in the leaves. With the energy of the sunlight, the water, carbon dioxide and chlorophyll mix to make food.

For more answers, email Samantha Torres at samanthatorres2004@gmail.com.

AIR POLLUTION?

As most of you know, pollution is something added to the environment that doesn't belong, like tiny particles that can harm humans, plants, and animals. Air pollution can refer to particles like soot or much, much smaller particles like sulfur oxides, nitrogen oxides, and chlorofluorocarbons.

Soot and ash from burning coal makes a gray haze over the coal-burning power plant and the surrounding area. If someone breathed in the air in those places, they would also breathe in fine particles, almost like if they were smoking a cigarette. These particles can also be the nuclei, or centers, of droplets of liquid, which then fall to the ground the same way that all rain does.

The liquid, however, is often a mixture of more than just water; it can include H_2SO_4, which is a fancy way of writing the name of a chemical called sulfuric acid. This chemical is made when two other gases produced from burning coal, nitrogen oxide and sulfur oxide, combine. Because H_2SO_4 is an acid, when it falls to the ground in the rain, it makes the rivers and the soil it lands on more acidic, too. For the plants, soil that is too acidic could make it too hard for them to gather nutrients from their roots. For fish and frogs in the rivers, acidic water could eat away at the eggs they lay, and leave them childless.

The good news is that there are ways to help fix all of these problems. By using less electricity and driving less often, you can reduce the amount of pollution that we are producing. If we all committed to using less, the world's air would be far healthier. But as concerned citizens, we can make an even bigger difference by challenging power plants to contain their own emissions, adding devices called scrubbers to filter the air before it leaves their smokestacks.

People have done it before. Have you ever heard of chlorofluorocarbons, or CFCs? These molecules destroy the ozone layer high in the atmosphere. The ozone layer reflects ultraviolet rays, so when it's gone, it's easier for people and plants to get sunburned. Luckily, in the 1980s and 1990s, CFCs were phased out across the globe by international agreements. Now the only way you might produce chlorofluorocarbons in your home is if you have a 40 year old refrigerator.

BY ABIGAIL LANDERS

Staff photo, Air Pollution

SYMBIOSIS: GOOD FOR ME, GOOD FOR YOURENEW

Staff photo, Symbiosis

Symbiosis by definition means an interdependent or mutually beneficial relationship between two persons or groups. Symbiotic relationships can be between a sea anemone and clown fish, or a buffalo and a cowbird. But in this specific instance, in the case of yourenew.com, symbiosis can be applied to the human being and the environment.

Citing the slogan, "Get paid to renew," YouRenew puts a spin on the 3 R's: reduce, reuse, and recycle. Users sell their old technological devices to YouRenew and in return, get a check in the mail. YouRenew buys devices such as iPhones, laptops, and Blackberrys through a three-step system. Users first enter their desired device into the search engine on the YouRenew website to get a price estimate. The device is then sent to YouRenew headquarters where people take apart the device to recycle specific pieces for other uses. Finally, YouRenew sends money back to the user.

Staff photo, Technology

Gone are the days of throwing an old camera in the landfill and risking the toxic impact of leeched chemicals. YouRenew helps to reduce the environmental impact of assembling a product by reusing old pieces. Symbiotically, the user also gets to upgrade to a better device without the guilt of throwing away an old one. I renew, we renew, YouRenew.

BY ALEX NGUYEN-PHUC