



CRANBROOK Cares!

Our Winter **Sustainability at Cranbrook!** Newsletter shares with you some of the latest sustainability initiatives and events happening at Cranbrook. Articles feature the projects and accomplishments of our amazing faculty, staff and student body in the area of sustainability. Be sure to check out our challenges and ideas related to how you can engage in the process of helping to build a sustainable Community now and in the future! **Enjoy!**

WE CELEBRATE! APRIL 22, 2014

See Inside Edition for Special **Earth Day** Information, Events & Tips!



CRANBROOK EDUCATIONAL COMMUNITY

SUSTAINABILITY AT CRANBROOK

EXTREME BOILER MAKEOVER!

*Keppel and Kingswood Gym 50 Year Old Boilers
undergo complete make over*

Special Thanks to our Physical Plant and Capital Projects teams who have been instrumental in helping assess the ways we use energy campus-wide , recommending reduction strategies and completing key projects to help accomplish our goals to reduce campus wide energy consumption. Pictured below are before and demo phase photographs of the two 50 year old Steam Boilers located in the Keppel and Kingswood Schools locations. **AFTER** Photograph and other sustainability energy conservation related projects highlighted on page 2)



BEFORE



Inside this Issue:

Page

Extreme Boiler Makeover	1-2
Energy Conservation Projects	2
Earth Day History/Activities	3
Focus on Our Programs	4
Earth Gage	5
Director's Blog	5

EXTREME BOILER MAKEOVER! (Story Continued from Page 1)



AFTER

- **Energy Efficiency Rating Before =** 70%
- **Energy Efficiency Rating After =** 86%
- **Service Areas:** Provides heat to the Cranbrook School and Kingswood Upper School campuses.
- **Project Manager:** Gene Hunt

Domestic Hot Water Heater Project

Energy Efficiency Rating Before = 72%
Energy Efficiency Rating After = 90%

Service Areas: New Domestic Hot Water Heater which supplies domestic hot water for the Keppel Gym, Performing Arts Center and Gordon Science buildings.

Project Manager: Gene Hunt



**Campus
LED
Lighting
Projects**



Cranbrook has begun installing LED lamps which use less energy. Also, there are anticipated labor savings because the metal halide and high pressure sodium vapor fixtures must be re-lamped every two or three years, while the LED lamps should last ten years or more (50,000 hours.)

Forty-five (45) energy efficient LED flood lights have been installed on the exterior of some buildings, replacing the metal halide and sodium vapor floor lights. This will reduce energy consumption by about 20,000 KWH and save about \$1,700 per year.

Flood Lights Required Energy Draw Before = 150 watts
Food Lights Required Energy Draw After = 23 watts
Project Manager: Gene Hunt

Additionally, 9 new LED light fixtures have been installed in the Wallace Ice Arena and Tennis Courts parking lots. The new LED light fixtures installed in these areas have significantly improved illumination, resulting in safer vehicular and pedestrian travel at night. The KIM light (pictured on the right) fixture has been selected as the Campus standard for roadway and parking lot zones.

Metal Halide Lights Required Energy Draw Before = 185 watts of power
LED Lights Required Energy Draw After = 23 watts of power
Project Manager: Craig Hoernschemeyer

We Celebrate Earth Day- April 22, 2014

What is the History of Earth Day?

It all started in 1970 with the first Earth Day, widely considered to be the birth of the modern environmental movement. A US Senator from Wisconsin, Gaylord Nelson, was the man behind the idea. He chose young activist Denis Hayes to be Earth Day's first national coordinator. The event was a massive success. Over 20 million people took to the streets on April 22, 1970 to demonstrate for a healthy, sustainable environment. Their activism led directly to the formation of the US Environmental Protection Agency, as well as the passage of the Clean Air Act, Clean Water Act, and Endangered Species Act.

Earth Day has been growing steadily ever since. In 1990-the 20th anniversary of the first Earth Day-the event went global, mobilizing 200 million people in 141 countries. And in 2010, Earth Day celebrated its 40th anniversary by amassing 250,000 people on the National Mall in Washington DC and mobilizing millions of others around the globe. Earth Day is now the largest secular civic observance in the world.

Like Earth Days of the past, Earth Day 2014 will focus on the unique environmental challenges of our time. As the world's population migrates to cities, and as the bleak reality of climate change becomes increasingly clear, the need to create sustainable communities is more important than ever. Earth Day 2014 will seek to do just that through its global theme: Green Cities. With smart investments in sustainable technology, forward-thinking public policy, and an educated and active public, we can transform our cities and forge a sustainable future. Nothing is more powerful than the collective action of a billion people. (Source: www.earthday.org/earth-day-history-movement and www.earthday.org/greencities/earth-day-2014).

Earth Day Activities- How You Can Make A Difference

While every day *should* be Earth Day, only one day of the year has been designated to participate in activities and embrace practices that we should continue year-round. The theme for Earth Day 2014 is Green Cities. This year, some people will plant trees, clean up their communities, contact their elected officials, and more—all on behalf of the environment.

What are you doing this Earth Day? Not sure about how you can make an impact? Need some ideas? Our Sustainability Team Researcher, Phyllis Kendrick-Wright, found some ways you can be part of the action:

At Home

Brew "certified" coffee and tea. A USDA Certified Organic label means it was grown using sustainable standards. Not brewing at home? Take a travel cup to your favorite coffee shop.

Consider switching to natural household products. Regular household cleaning products can be incredibly toxic. Check the labels. Natural products contain a list of ingredients. Websites like Goodhousekeeping.com will also show you how to make your own natural cleaning products, like glass cleaner and deodorizer, with products you probably already have at home.

Organize your neighborhood to properly dispose of old electronics. When disposed of in landfills, toxic chemicals are released into the water and ground. Trade old electronics on websites like Gazelle.com or contact your local Best Buy to plan an Earth Day Disposal Event.



At Work

Coordinate a "Stop Brown-Bagging Lunch" Day. Instead, pack it in a reusable container and use a reusable water bottle. This eliminates plastic utensils and containers, and limits the use of paper napkins. You can even use your utensils if you go buy lunch. Challenge yourself, family members, and co-workers to see how waste-free you can make your lunch every day.

Carpool On Earth Day. Reduce your carbon footprint! Leaving your car at home twice a week can cut greenhouse gas emissions by 1,600 pounds per year. Also, save up errands and shopping trips so you need to drive fewer times. You'll reduce air pollution and traffic congestion - and save money.



Choose green office supplies: Choosing "green" products only takes different choices in the store and online. Most office supply stores carry "green" supplies. It's pretty easy to find printer paper, filing supplies and binders in ranges of 10-100% recycled content.

At School

Teachers:

Register Your Class! Registering your class with the Earth Day network will ensure that you and your students are counted among the many Earth Day events. Have your students take the Ecological Footprint Quiz. Students learn about our planet by entering data into an animated calculator, and explore ways to limit their impact.

Incorporate Earth Day education into your lesson plans. The Earth Day Network K-12 Toolkit contains lesson plans for all grade levels. Topics include "The Truth About Plastic Bags", "The Six Infamous Pollutants", and "Major Types of Air Pollution and Their Global Distribution".

Plan an Eco-Fair. Invite local organizations to come in and share information with students.

Students:

Learn How to Plant a Tree: Participate in an event at your local forest or park.



Spread the Word. Celebrate Earth Day by starting a new Earth-friendly habit. Spread the word on social media and via text to encourage your friends to do the same.

Get Involved. Attend one of many local events celebrating Earth Day. Events are planned at locations like the Cranbrook Institute of Science (see article), Detroit Zoo (GreenFest), and many cities (check local city web pages).

Check out <http://fun.familyeducation.com/earth-sciences/childrens-science-activities/32872.html> for creative and exciting Earth Day activities designed for children. Projects include 10 Earth-friendly crafts, an Earth Day Activity Book, and building a backyard wetland.

Did You Know?

Earth Gauge Sustainability Tips

Earth Gauge® is a free information service designed to make it easy to talk about links between weather and environment. Originally developed for weathercasters, the information is also available to the general public, educators, parents and students. Our very own, Green Team Member, Lisa Appel, Watershed Education Coordinator at Cranbrook Institute of Science, contributed articles on water pollution prevention in 2013/14 for national distribution. Visit the website for easy tips and on how you can reduce your impact on the environment: <http://www.earthgauge.net/>.



Director's Blog: Sustainable YOU



Photo courtesy of Jim Henson

It's Not Easy Being Green Cranbrook!

I am often encouraged and motivated by the many quotes shared by so many leaders, pioneers and people I meet at extraordinary places (*Cranbrook*). All who, are purposed on changing, influencing and impacting the lives of others and the world around them. For this Blog, I could have shared quotes I've heard from so many amazing scholars and influential people to help paint and illustrate the intended message: *It's Not Easy Being Green Cranbrook*. Instead, I decided to share a quote by Jim Henson's most famous Muppet creation, *Kermit the Frog*. That is, "it's not easy being green."

For illustrative purposes, I can imagine *Kermit the Frog* looking around and noticing that he alone was green and all the other Muppets were not. And, I can further imagine that although it was not easy for him being green, that did not stop him

from sharing the many messages that have impacted and even shaped the lives of so many young people. (*Yes, I know I am are talking about a Muppet*).

What I admire most about Cranbrook is that it continues to be an organization where each individual looks around and notices that in order to accomplish the mission: *Provide extraordinary education, encourage creativity and innovation and value learners of all ages and backgrounds*, it may not always be easy, yet, Cranbrook remains united and focused on the goal of striving for excellence.

For illustrative purposes, I can imagine a *Green Cranbrook*, a greener organization and like none other. It's not easy for each of us to put items in designated recycling bins, turn off lights, computers, idling vehicles and water when not in use. No, it's not easy for the physical plant staff and service providers to keep separating the recycling from the waste. No, it's not easy to use less office paper and plastic to help reduce our landfill waste. No, it's not easy for our students and food service providers to help reduce food waste. And,

no it's not easy for Cranbrook to identify the financial resources to replace boilers, water heaters, LED lighting, purchase sustainable products, engage and promote sustainable business practices. More over, it may not always be easy being green, yet, we all remain strengthened, united and committed to do our part as we work toward the goal: **Green Cranbrook!**

Happy Earth Day Everyone!



You Can Help Make A Difference



Update us on your progress - share your success— share your ideas at home and work. Please share your comments and ideas with us.

Contact Norma Evans at 248-645-3288 or sustainability@cranbrook.edu with any questions, ideas, or information. Working together, we can make a difference!

The *Sustainability at Cranbrook* newsletter is published quarterly for Cranbrook Educational Community.

Chief Operating Officer
Rod Spearin

**Director of Sustainability and Business Services/
Editor/Publisher**
Norma Evans

Design Editor
Phyllis Kendrick-Wright