



# 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



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**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**

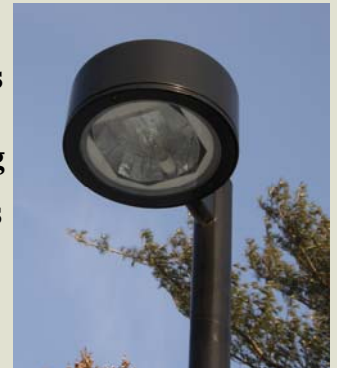
**Energy Efficiency Rating Before =** 72%  
**Energy Efficiency Rating After =** 90%

**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](http://www.earthday.org/earth-day-history-movement) and [www.earthday.org/greencities/earth-day-2014](http://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](http://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](http://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.

# A Focus On Program Activities /Events Related To Sustainability

Cranbrook Schools  
World Affairs Seminar  
February 21, 2014



Brookside School  
Henry Booth Memorial  
Cleanup  
April 22, 2014

## CRANBROOK INSTITUTE OF SCIENCE UPCOMING EVENTS 2014 Native Landscaping Events

### *Native Plant Propagation Workshop*

Saturday, February 22, 9-11:30 am

Cost: \$10.00

To register visit: <http://science.cranbrook.edu/find-program-event/seasonal-special-events>

### *Protecting Your Shoreline: A Workshop for Lakefront Property Owners*

Saturday, March 8, 8:30-4 pm

Cost: \$60.00

To register visit: <http://events.anr.msu.edu/2014ShorelineLandscaping/>

### *Naturalizing the Home Garden: A Native Garden Design Workshop for Beginners*

Monday, March 31, 6-8 pm

Cost: Free

To register visit: <http://therouge.org/index.php?id=687628#c1143010>

## CIS EARTH WEEK

April 7-11, 2014, 1 to 4 pm each day

Join us for children's activities focused on making sustainable choices to help the Earth. Activity stations will demonstrate key concepts in sustainability and engage participants in learning new knowledge about minimizing waste, preventing pollution, saving energy and stewarding the Great Lakes. No registration needed.



## Cranbrook Institute of Science Expands Water Education Lisa Appel (*Sustainability Green Team Member/ Contributing Writer*)

The DTE Energy Community Waterfests! Program is a four-year grant from the DTE Energy Foundation to the Institute of Science to begin water festivals across the state. Water festivals are day-long educational events designed to teach students about water science, create awareness of environmental issues and connect schools to community resources. Fifth-grade Brookside students have enjoyed attending the Rouge River Water Festival at the Institute of Science for many years. Cranbrook Institute of Science is now sharing its expertise with new communities.

The first event was the Detroit River Water Festival in 2012. Over 20 partners delivered a unique water education experience to students along the brand new river walk. In the last two years, 1,500 Detroit Public Schools sixth grade students have experienced this outstanding learning opportunity right on the river. Planning is now underway for 2014 on Belle Isle! Visit: [www.detroitriverwaterfestival.com](http://www.detroitriverwaterfestival.com)

Many partners contributed to the creation of the Blue Water Sturgeon Festival held along the St. Clair River at the new [Maritime Center](#) in Port Huron. The event educates families and visitors about the ecology of the [Lake Sturgeon](#), which is a threatened species in Michigan. Many efforts are underway in the St. Clair-Detroit River Corridor to restore spawning habitat for the sturgeon, which also benefits many other Great Lakes fish species. The event features a boat tour and live sturgeon on display with UFWWS biologists. Visit: <http://www.sturgeonfestival.com/>

Third-grade students from Muskegon County had an exciting day of learning at the Muskegon County Water Festival in September 2013. Held at the [USS Silver-sides Museum](#) along the Lake Michigan shoreline, 580 students learned geography, ROV technology, water quality and more! Visit: <http://mrwa.org/muskegon-wf.htm>

The IHM Motherhouse campus in Monroe will be the setting for the Lake Erie Water Festival on May 28, 2014 to serve sixth-grade students in Monroe County. The [IHM Campus](#) is a model of sustainability that includes renewable energy, water recycling and native landscaping.

Volunteers are needed for the Detroit River Water Festival on May 8<sup>th</sup> and the Lake Erie Water Festival on May 28<sup>th</sup>. Please contact Lisa Appel, Watershed Education Coordinator at [lap-pel@cranbrook.edu](mailto:lap-pel@cranbrook.edu) if you would like to be a class guide. To learn more about watershed education at Cranbrook Institute of Science, please visit: [www.greatlakeswatershed.org](http://www.greatlakeswatershed.org)

# 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!**



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## 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](mailto:sustainability@cranbrook.edu) with any questions, ideas, or information. Working together, we can make a difference!

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