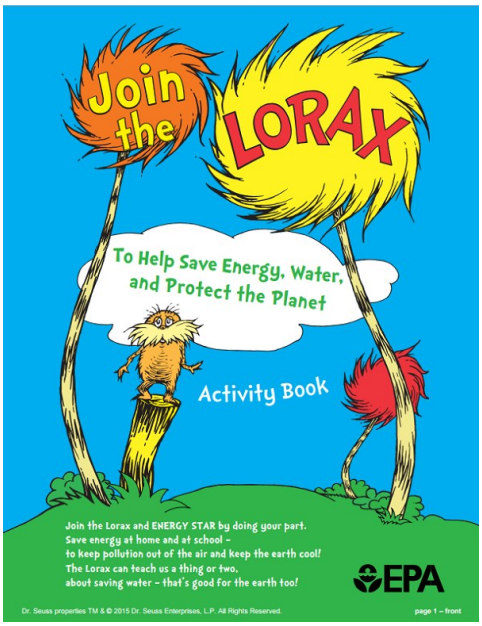
DesMoines PUBLIC SCHOOLS

ENERGY REPORT CARD

February 2017



Get students excited about saving energy with The Lorax! Click here for a Lorax Activity Book.

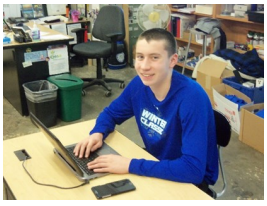
Did you know?

* A hot water faucet that leaks one drop per second can add up to 165 gallons a month. That's more than one person uses in two weeks.
* An energy-smart clothes washer can save more water in one year than one person drinks in an entire lifetime!
* An automatic dishwasher uses about six gallons less of hot water than washing by hand. Over a year that adds up to 2,000 gallons!
* We drink very little of our drinking water. Generally speaking, less than 1 % of the treated water produced by water' utilities is actually consumed. The rest goes on lawns, in washing machines, and down toilets and drains.

From the desk of:

Catching up with the IESA Students

Bottle Bill by John (Jack) Van meter, SE Polk High School



Across the United States, many states have legislation for deposits to be put on beverages to promote recycling within a community. The so-called bottle bills exist to put a little money back into the consumer's pocket and make sure bottles and cans are going back to the right place rather than a landfill. At the grocery store when people check out, there is always a five cent deposit (in the state of Iowa, some states may be higher or lower) for each eligible bottle or can that is purchased. To earn the deposit back, one must take the cans or bottles back to a return site and sort them out. Only 10 states in the United States and the territory of Guam have legislation for a bottle bill system to be put in place. Bottle bills are effective where they have been put in place and should be enforced around the United States.

Bottle bills in the 10 states around the United States serve to protect the environment and reward others for trying to help. In states without a bottle bill, it is just as easy to throw a can in the trash instead of the recycling bin because the can has no monetary value to the person. Organizations like boy scouts, girl scouts, baseball, and softball teams thrive in bottle bill states because people are generous enough to give them their cans and bottles because it is a chore to take them back. By giving those groups of people bottles and cans, money is earned, a good deed occurs, and that's one less chore for the person who saved them. Oppositions argue that it costs the return sites money and it is not a good system to have in place. However, oppositions spend millions and millions of dollars each year to make sure bottle bills are not passed and the return sites don't have to spend extra money to maintain their facilities. With the money spent to oppose the bottle bills, return sites can be set in place in other states, more jobs can be created for teenagers looking for minimum wage jobs, and the people across the country can enjoy a more clean and healthy community.

Bottle bills are practical in the sense of rewarding and motivating others to help better communities around the nation. The 10 states of California, Iowa, New York, Hawaii, Oregon, Maine, Connecticut, Vermont, Massachusetts, and Michigan have benefitted from such legislation because most have little pollution when it comes to bottles and cans. All 10 states have been successful for decades and the rest of the nation should follow in the footsteps created by legislators in the bottle bill states. Opposition spending can be used to help save the environment rather than destroying it. For a greener and cleaner future, bottle bills are just one step people can take to get there.

From the desk of:

Catching up with the IESA Students

Windows by Frankie Baretta, Lincoln High School

In IESA we are preforming our own Home Audit. To meet the requirements of the project and to fulfill the proper audit we need to find everything about our house. I'm coming to you talking about windows and how certain windows help save you and your families energy.

The more popular types of windows are Casement windows which are stationary and you crank to open them. Or single or double hung windows those slide just up and down. Double pane or double hung windows have two separate panes of glass that have glass in-between them. Those are good for helping to save energy, when its cold outside and the suns out and goes through your window the sunlight and the gas between the pane helps heat your house.

Home Energy Audit by Mindy Peterson, Roosevelt High School

The home energy audit is a hands on project it helps connect us to the real life application of what we are learning in the classroom. This project involves us evaluating our homes to see how efficient we use our energy. We will look at our windows, insulation, appliances and light bulbs. We will look at information on all our homes appliances in many ways. They include, year it was built, age, model and the yellow energy stickers, which is a program that provides basic information on energy use.

Some other information on our homes which help us look at the overall story on energy use is type of foundation, siding, and roof materials.

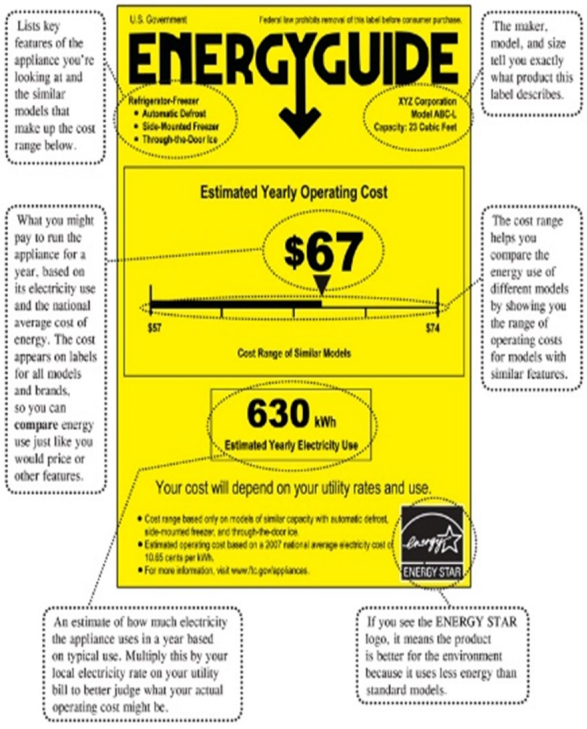
For part of the project we also have to calculate how much trash we throw away on a weekly basis and what we do with our yard waste such as composting and leaf clippings.

Energy Guide by Camryn Ward, Lincoln High School

One project that we spent some time on was looking into the yellow energy guide label that you can find on your common home appliances like your washer, dryer, etc. We researched and documented what the guide says and explain everything that is on the energy label. We also cite our sources to give where we and how we got our information.

As you can see in the energy guide, we would depict this entire page, we would look into the price per month of running that appliance yearly as well as the model type and seeing the difference between each model. You can see in the top left corner what the product has that makes it different from the other models and other products, and on the bottom of the page it gives you the amount of electricity that would roughly be used yearly.

Each project we do in IESA has a different aspect to it, from describing what effect it has on the environment, to energy consumption, to who has made in impact on the environment, it all varies from project to project. A couple projects we do can be done it in 30 minutes or less, other projects can take up to an entire class period or two, this is just a small piece of what IESA offers as a program at Central Campus.



ENERGY REPORT CARD

SITE ENERGY USAGE REPORT

January 1, 2016 to December 31, 2016

Percentage change compared to same time period of previous year.

Site	Total Energy (mBtu)	kBtu/ SqFt	% Change	ENERGY STAR Score
Samuelson	1391	23.7	-25.65%	100
Lincoln RAILS	4554	42.8	-23.08%	92
Walker St	1485	40.2	-20.95%	84
Smouse	3041	56.5	-20.60%	89
Lincoln	18139	58	-19.71%	91
Welcome Center	754	81.5	-19.56%	N/A
Garton	2438	37.1	-14.68%	83
McKinley	2214	44.3	-14.49%	93
Moulton	5742	47.2	-10.29%	95
Mitchell	1070	33.8	-8.87%	88
Studebaker	1408	31	-8.58%	100
Hoover/Meredith	15504	51.8	-7.94%	97
Hiatt	3173	28.9	-7.37%	98
Merrill	4103	43.6	-5.59%	99
Hubbell	2377	48.1	-4.75%	94
Weeks	4532	40.3	-4.44%	96
Phillips	1910	45.5	-4.38%	93
Willard	2312	39	-4.36%	96
Taylor	1450	32	-4.21%	94
South Union	2001	29.2	-3.88%	98
Pleasant Hill	962	23.3	-3.52%	100
McCombs	3040	34.4	-2.99%	99
Brody	5367	54.5	-2.87%	95
Hoyt	5289	52.5	-2.83%	97
Prospect	4803	91.4	-2.68%	49
Carver	2032	22.2	-2.63%	99
Central Campus	24771	54.2	-2.52%	91
Jefferson	1400	30.5	-1.87%	96
Howe	1326	42.4	-1.74%	89
CNC	11613	206.7	-1.68%	N/A
Monroe	3534	47.8	-1.46%	94
Lovejoy	1474	37.7	-1.24%	96
Capitol View	2864	37.8	-1.03%	99
Operations	3276	33.6	-0.33%	80
Roosevelt	15612	50.9	-0.24%	94
Park Avenue	1961	30.2	0.24%	97
Madison	1579	37.5	0.43%	96
Greenwood	1641	26.5	0.58%	98
Woodlawn	1149	24.7	0.80%	N/A
Van Meter	4371	75.5	1.20%	73
Cattell	1909	39.8	1.21%	100
Hanawalt	1537	35.5	1.82%	95
Oak Park	2058	34.6	2.02%	95
Harding	4286	34.2	2.68%	97
Callanan	5092	43.9	3.03%	92
East	23860	69.3	3.42%	90
North	11187	44.8	4.09%	93
Central Academy	4383	50.7	4.27%	59
Brubaker	2512	32.1	4.67%	96
Perkins	1637	25.2	4.84%	99
Goodrell	3067	27.8	5.08%	97
Hillis	1697	29.4	5.42%	98
Riverwoods	3610	55.7	5.55%	95
Edmunds	1645	21.5	7.32%	100
Walnut St	8464	72.7	8.41%	20
Windsor	1662	27.5	11.99%	98
Jackson	1779	39	12.76%	94
Findley	1576	36.2	13.12%	98
Cowles	2041	46.6	13.14%	82
Wright	1318	43.5	14.41%	87
Stowe	1985	34.8	15.93%	93
King	1604	29.6	22.28%	98
Morris	2316	32.8	29.50%	95
McKee	1135	26.1	30.30%	85
2323 Grand*	2754	55.4	N/A	98
Moore*	1726	33.3	N/A	94
2100 Fleur**	N/A	N/A	N/A	N/A
Mann***	N/A	N/A	N/A	N/A

Only buildings with a score of 75 or higher are eligible for ENERGY STAR Certification

Green = Decrease in energy use

Yellow = Maintained usage within 10%

Red = Increase in energy use

* No comparison data for 2323 Grand or Moore.
** Less than a year of data for 2100 Fleur, no metrics available.
***No data available for Mann due to renovations.

Visit www.dmschools.org for more details of the district's energy mission and building performance. Do you want to share your ideas for saving energy or helping our environment? Or want to let us know about your projects? Tell us about it! E-mail Sarah.Holland@dmschools.org