

The District's energy usage to date is up from last

fiscal year, primarily due to September being cooler this year than last. Flip to Page 3 to see where your building stands. Please keep the tips to the right in mind as the cold winter months approach:

Cold Weather Reminders

- According to MidAmerican Energy, for every degree your thermostat reads above 68°, there would be a 4% increase in consumption of natural gas.
- On cold days, turn window blinds downward. This allows you to use the winter sun for both lighting and heating. If the sun's rays can shine into your room, the amount of energy needed for heating can be reduced.
- Opening doors and windows make the HVAC system work harder to maintain temperature set points.



Get students involved!

Thank you to staff and students at **Findley** and **Cowles** for participating in our energy efficiency movement! Facility Management encourages teachers to check out the student-based DMPS Energy Audit Form. This exercise is completely voluntary to classrooms. Any efforts are greatly appreciated.

[Click here for the DMPS Energy Audit Form. This particular survey is geared toward elementary students.](#)



Energy Saving Tips to Gobble Up This Thanksgiving

Edison Electric Institute

- If a large group of people is expected for dinner, lower the thermostat a degree or two before the guests arrive.
- Check the refrigerator and freezer doors to make sure they seal tightly.
- Allow hot foods and liquids to cool before putting them in the refrigerator. Uncovered, hot foods and liquids give off vapors that make the refrigerator work harder.
- Use a "lids-on" approach to cooking. Tightly fitted lids on pots and pans help keep heat in, enabling you to lower the temperature settings and shorten the cooking times.
- When boiling liquids, start by using the highest temperature settings to reach the boiling point. Then lower the heat control setting and allow the food to simmer until fully cooked.
- Use the microwave instead of the regular oven whenever possible. Microwave ovens draw less than half the power of your regular oven, and they cook for a shorter period of time.
- When preheating your regular oven, time the preheat period carefully. Five to eight minutes should be enough time.
- When using an electric oven, cook as much of your meal as possible in it at one time. Foods with different cooking temperatures can often be cooked simultaneously at one temperature.



What's Happening in IESA

The Application of Solar and Wind Energy in the Classroom

Ben Peterson, Roosevelt High School

Our class, IESA, at Central Campus was given a grant to purchase a Solar and Wind Energy Training System. This piece of equipment gives our class the capability to simulate the process of transferring nature's energy from the sun and wind into energy we can use in our daily lives. At the same time we are building our very own solar panels that each student can take home and apply. This simulator uses the same wirings and tools that are found in houses across America giving anyone who uses it an upper-hand in the electricity field.



Since the class began this year, I have spent time preparing the training system for classroom use. I connected wires from the solar panel and wind turbine to batteries which store the energy. Wires are then sent through a number of pieces of equipment until it could be converted into energy that can be harnessed and used. Dozens

and dozens of individual wires, outlets, light bulbs, meters, switches and much more litter the "house on wheels." Every little object represents pieces found in the real world. Our class has been very fortunate to receive something that every student who comes through this class can benefit from not only in the classroom but outside of the classroom as well.

Plant Herbariums

Erin Hammond and Marco Foster

To begin this year in IESA, students are learning and designing their own herbariums. A herbarium is a collection of preserved plant specimens. To start the process of making their own herbarium, students first researched the many techniques used for plant preservation and then chose the best method for them.

The next step involved a trip for all the students to Grey's Lake. During class periods, IESA made the trek down to the nature area to collect 15 to 20

different plant specimens from trees to flowers to collect samples without harming the rest of the plant.

To continue the process, students returned to the classroom and broke out old phone books and text books. Placing the specimens between two pieces of paper or in plastic baggies, students then put the samples in the old books to be pressed and dried for two to three weeks. After allowing the plants time to dry out, students will use dichotomous keys to identify and label the specimens before placing them in a three-ring binder to create a portfolio as the final step.

Through this project, students learned the importance of respecting plants in nature and being able to properly preserve and identify them for future use.

IESA's plant herbariums will be out at the Earth Day display this spring.



Plant Preservation/Greenhouse Project

Megan Beveridge & Ty Hutchinson

Our class has been learning about ecosystems and prairies native to Iowa. Central Campus' principal gave us run down planting plots around the school to recreate and restore some of the prairies and native environments to Iowa and around our school. We have been working on a greenhouse to grow and care for our prairie plants throughout the winter so when spring comes we will be able to plant and start our prairie plots. We are learning about the necessary tools, plants and techniques to have a thriving prairie plot. Each group of students are assigned a plot and from there they pick what kind of prairie they want to create around

our school. Next we look at the plants native to that prairie and find out what they need to grow successfully. We determine how much water, sun and space they need to grow to their full potential and pick the best plot for them.

We are choosing from music, hill, dry and sand prairies. We chose our top 12 plants we'd want for our plots and found ordering information along with other tools and stuff we'd need such as planting soil and grow lights for our greenhouse. Some of the plants you will see featured in our plots are golden rods, prairie smoke, switch grass, big bluestem, and wild lupine. Our class is very excited to see what the future has in store for our conversation and restoration project. We hope to have the new edition to our school done in time for spring 2015.

ENERGY REPORT CARD

SITE ENERGY USAGE REPORT: SEPTEMBER 2014

Percentage change compared to same time period of previous year

*kBtu/SqFt for period of Sept. 2013-Sept.2014

Site	Total Energy (MBtu)	kBtu/SqFt	% Chg		Site	Total Energy MBtu	kBtu/SqFt	% Chg	
Monroe	141	63	-24.2%		Dean Operations Center	119	46	22.9%	
Pleasant Hill	67	25	-23.6%		Jefferson	125	36	23.6%	
Findley	95	33	-22.5%		Central Academy	227	61	23.9%	
Morris	139	26	-15.4%		Hoyt	315	48	24%	
Walker Street	104	47	-14.7%		Park Avenue	146	31	26.8%	
Moulton	195	63	-13.9%		Van Meter	272	108	27.6%	
Wright	77	38	-11.9%		River Woods	172	63	28.3%	
East	1,138	87	-10.3%		Perkins	113	30	29.2%	
Hiatt	180	36	-10.2%		Lincoln	1,449	80	29.6%	
King	85	26	-10.1%		Studebaker	59	45	30.4%	
Moore (Scavo)	68	62	-9.4%		McCombs	229	48	32.6%	
Lincoln Rails	268	82	-8.5%		Greenwood	134	31	32.7%	
McKee	40	19	-8%		Cowles	89	44	32.8%	
Willard	133	49	-7%		Windsor	95	29	34.1%	
Phillips	103	60	-6.9%		North	582	70	35.4%	
Hillis	105	29	-6.6%		Brubaker	205	32	35.5%	
Goodrell	214	30	-6.2%		Hubbell	132	54	36.2%	
CNC	940	260	-4.8%		Lovejoy	94	44	37.4%	
South Union	171	32	-3.8%		Edmunds	116	21	37.8%	
Prospect	230	115	-3.3%		Weeks	326	47	38.5%	
Mitchell	83	38	-1.5%		Merrill	227	55	38.7%	
Capitol View	154	46	-0.1%		Cattell	117	50	41.4%	
Stowe	114	47	0%		Roosevelt	975	82	41.9%	
Oak Park	130	35	3.6%		McKinley	155	57	43.6%	
Madison	123	41	4.5%		Jackson	106	32	44.2%	
Garton	174	49	5.7%		Callanan	323	42	46.3%	
Samuelson	133	38	6%		Hoover/Meredith	1,430	64	55.7%	
Woodlawn	68	25	7%		Howe	98	37	58.8%	
Harding	176	42	9.6%		Aviation Lab	33	56	85.2%	
Carver	173	25	9.8%		Smouse	272	124	105.9%	
Walnut Street	588	76	10.5%		Brody	472	65	163.4%	
Central Campus	1,273	72	17.1%		Welcome Center	53	95	208.5%	
Hanawalt	109	35	17.3%						

*Welcome Center had the freezer addition, resulting in significantly more energy use than previous year.

- Increase in energy use
- Maintained usage within 10%
- Decrease in energy usage

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! Email Michelle.Chalkey@dmschools.org