DesMoines PUBLIC SCHOOLS

ENERGY REPORT CARD

November 2010

What's the Buzz?

Smouse has undergone an entire building lighting retrofit. Leslie Timmerman, Principal, said "Lights are fantastic! The rooms are much brighter than before! Thanks."

Central Campus small gym lighting was replaced with high bay fixtures which have a greater light output, instant on, and use less energy. Dan McClannahan had this to say, "Wow what a difference, enjoyed by all. Thank you for making this a better facility for our members and DMPS."

Are You Lighting Up Your Holidays?

Many decorative light strings featuring LED technology are ENERGY STAR® qualified.

"What is an LED? Light emitting diodes, or LEDs, are small light sources that are illuminated by the movement of electrons through a semiconductor material.

LEDs are exceptionally energy efficient when producing individual colors, many using up to 90% less energy than an incandescent bulb to produce the same amount of light.

For example, the amount of electricity consumed by just one 7-watt incandescent bulb could power 140 LEDs — enough to light two 24-foot (7.3-meter) strings."

Source: www.energystar.gov

Click the image or visit www.energystar.gov to take the pledge.

Energy Conservation Awards

In recognition of energy excellence by reducing energy consumption for the 2009-10 school year compared to the 2008-09 school year. The awards were based on avoided building costs, sustained commitment, energy attitude, and decrease in energy consumption.

McCombs Middle School Top Performance

Terrence Martin, Associate Superintendent; Corey Burgess, Principal; Bill Good, COO; Connie Sloan, Vice Principal; Chris Murphy, School Improvement Leader; Students—Patrick Johnson-Bussie, Alyssa Hunerdosse, Stacy Sisamouth, and Christopher Resendiz

24% reduction

River Woods Elementary

23% reduction

Larry Blaisdell, Chief Custodian; Yoni Ortega; Arianna Smith; Hugo Santiago; Makayla Wilson; Tiffany Vansylalom; Isaac Toluwalase; Jill Burnett Requist, Principal

Monroe Elementary

17% reduction

Noah Breitsprecher; Taylor Miller; Cindy Wissler, Principal; Kendra Hernandez; Dr. Nancy Sebring; Superintendent of Schools; Tyrauis McElroy; Teara Burgs

A Light on the Subject

People throughout history have found ways to use energy efficiently. In the 1800's, people used gas or oil lamps to light their homes. Thomas Edison knew it was cheaper to use electricity and after a while he invented the incandescent light bulb. Would Thomas Edison be amazed at the technology today! We have found compact fluorescent lights (CFL) to be more efficient than the incandescent bulb and LED (light emitting diode) to be more efficient than CFLs. We have also learned to conserve the energy we use by turning off the lights when we leave a room.

Evolution of the light bulb

Notable lighting statistics:

26 Percentage of electricity consumption in a typical school that goes for lighting.

30 to 50 Percentage of lighting energy in a school that can be reduced by retrofitting to more efficient fixtures.

25 number of years that an ENERGY STAR-rated LED exit sign can last without lamp replacement.

Source: U.S. EPA, "ENERGY STAR® Building Upgrade Manual"

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Check It Out ...

what's new from our students.

By Anna Sanchez, Lincoln High School

These past six weeks at Central Academy we have started a recycling program. This program is mainly to prevent waste and help the environment. We started in October by collecting cans, paper, and plastic bottles. We went around the school earlier that month to map out where we were going. There are specific bins for each recycled product. Each room is graded on how well they keep bottles and bins clean as well as organized. The bottles are supposed to be cleaned out before they can be recycled. So far we have recycled 1239 lbs. of paper, 289 lbs. of plastic bottles and 162 cans. It has been a big success so far.

As part of our climate and energy unit we have had to graph climate characteristics used to classify and compare different places in the world. We have also graphed how the type of surface affects the amount of heat absorbed both in and out of direct sunlight.

We have started an energy unit. We basically look at and observe the different types of energy sources that are cleaner for our environment. We also look to see if it is reliable. The main energy sources that we are looking at are Nuclear, Solar, Wind, and Water. We have many upcoming projects that have to do with energy that the whole IESA class is looking forward to.

By Tyler Starner-Fry, East High School

This month in our IESA class at Central Campus, we have been involved with learning about weather. Weather patterns, how the wind current changes, and how weather occurs in our daily lives. The class has had a project on a website by NOAA (National Oceanic and Atmospheric Administration). Our project was to use their website and learn what they do every day. From weather to fisheries, and even charting, each one of the students looked into how and what each one of their divisions do.

We also have been talking about radar and how it has changed over the years from Conventional radar to Doppler radar. Seeing how winds in high and low pressure influence the temperature, and what typhoons, cyclones, tornadoes, and what waterspouts are. The past six weeks have been very fun in learning what weather is and how we can live with it.

We studied these topics because air is a resource and it will tie in with pollution and greenhouse gases, which we will be going into later in the year as we study energy and pollution. This shows us how valuable are air is, how we need to protect it, and our bad habits of relying on fossil fuels.

YEAR-TO-DATE SITE ENERGY USAGE REPORT

July 1, 2010 – September 30, 2010

Percentage change as compared to the same time period from previous year

Ranked Lowest to Highest Energy User (measured in kBtu/sq ft)

Site	Total Energy	% Chg	kBtu/ Sq Ft
Wright	71	15%	2
McKee	95	42%	2
Moore (Scavo)▪	98		2
Hillis	199	6%	3
Casady	141	-20%	3
Cowles	133	-6%	3
McCombs Greenhouse	36	47%	3
Dean Oper Cntr♦	280		3
Morris	315	-9%	4
Lincoln South	469	10%	4
Aviation Lab	60	-7%	4
Samuelson	231	7%	4
Windsor	241	17%	4
Harding	462	-24%	4
Stowe	209	4%	4
Greenwood	325	13%	5
King	269	32%	5
South Union	338	-5%	5
Cattell	235	-27%	5
Howe	181	97%	5
Perkins	255	4%	5
Mitchell▪	143		5
Callanan	747	14%	6
Brubaker	500	10%	6
Willard	359	5%	6
Madison	249	35%	6
Hiatt	609	-33%	6
Capitol View	437	-16%	6
Hanawalt	248	2%	6
Hubbell	304	5%	6
Findley	222	0%	6
Carver	510	0%	6
Goodrell	608	1%	6

Site	Total Energy	% Chg	kBtu/ Sq Ft
Moulton	911	9%	7
Central Campus•	3,294	4%	7
Monroe	521	13%	7
Park Avenue	414	-7%	7
Phillips	287	9%	7
Jackson▪	295		7
North	1,494	-10%	7
Garton	437	-5%	7
Weeks	743	-7%	7
Pleasant Hill	244	12%	7
Oak Park	391	1%	7
Downtown School	286	-9%	7
East	2,922	-14%	8
McKinley	416	10%	8
Hoyt	809	2%	8
Jefferson	333	10%	8
Hoover/Meredith	2,703	-11%	9
Smouse	484	0%	9
Central Academy	775	4%	9
Lovejoy	276	-1%	9
River Woods	608	1%	10
Lincoln	3,117	-7%	10
Edmunds	457	-8%	10
Merrill	871	0%	10
Welcome Center	59	1%	10
Studebaker	505	34%	11
Roosevelt•	2,730	47%	11
River Plaza	139	19%	11
McCombs	938	4%	11
East Academy	618	55%	12
Van Meter	794	10%	14
Walnut Street	1,705	-7%	15
Brody	1,462	2%	16

▪ **Building under construction comparison year 2009-10**

♦ **Building unoccupied part of comparison year 2009-10**

• **Building occupied during renovations**

Visit **www.dmps.k12.ia.us** for more details of the district's energy mission and building performance.

Tell us about it! Do you want to share your ideas for saving energy or helping our environment? Or want to let us know about your projects? E-mail **lisa.simpson@dmps.k12.ia.us**.

Recognized by the U.S. EPA for the superior energy management of our schools

ENERGY STAR PARTNER 2010