DesMoines Public schools

ENERGY REPORT CARD

October 2016

Welcome Back!

Programmable Thermostats

Heating and cooling accounts for 50% of the average U.S. household's utility bill. Take more control of that spending with a programmable thermostat. Programmable thermostats allow you to choose how and when your home's temperature changes, meaning a greater degree of control over your energy use. With these simple tips, you can program your home for energy savings:

PROGRAMMABLE THERMOSTAT EFFICIENCY TIPS Dial back while you sleep Don't cool an empty house Work with your ceiling fan Adjust each season

- **1. Dial back while you sleep:** Don't make your thermostat work overtime. Properly adjusting your settings at night while you're asleep and during the day while you're out of the house can save you \$180/year on your energy bills.
- **2. Don't cool an empty house:** If you'll be away for longer periods of time, take advantage of energy savings by using the "vacation" setting available on most thermostats.
- **3.** Work with your ceiling fan: By setting your thermostat 2°F higher when using a ceiling fan in the summer, you can save \$42 over the course of the cooling season. During winter, reverse the fan and lower your thermostat by 5°F for an additional \$5 in savings.
- **4. Adjust each season:** Adjust your temperature set points between the heating and cooling seasons. Check out our cheat sheet for ideal thermostat settings each season here.

Lighting Notes

- Lights should be turned off in spaces that aren't occupied this includes lamps and decorative lighting.
- Help each other out by turning lights off in unoccupied rooms, even if it's not yours.
- Consider using only 1/2 of the available lighting during planning time.
- Gym and cafeteria lights should be off if the space is not in use.
- Ensure that occupancy sensors are not blocked.

DMPS temperature guidelines for our buildings:

For Heating:

- Pre-school through 5th grade = 70—72 degrees
- 6th grade through 12th grade = 68—69 degrees
- Offices = 68 degrees
- Hallways = 65 degrees (maximum)
- Unoccupied temperature= in night set back (nights, weekends & holidays)

For Cooling:

75 degrees for classrooms and 78 degrees for common areas

As a reminder, Heating/Cooling problems are to be directed to the Building Chief. If they are unable to resolve the issue, they will submit a work order and Facilities will be notified.

Did you know?

- On average, 75% of the electricity used in a home is consumed while products are turned off.
- The energy required to perform 100 Google searches is the same as required to light a 60-watt incandescent light bulb for 28 minutes.
- LED light bulbs lose approximately 90% less energy as heat than an incandescent light bulb.
- Every time you open the refrigerator door, up to 30 percent of the cold air can escape.



Five Reasons Why Teaching About Energy is Essential

- 1. Educating the public, including students, about the economic and environmental importance of energy use is one of the best ways to help curb energy waste.
- 2. Helping students understand all aspects of a particular energy source its availability, benefits, and monetary, environmental, and social costs will help them make informed decisions about energy at home and at work.
- Interest in the development of renewable energy sources is of high priority. Teachers who learn about the energy-efficient innovations can integrate news about new emerging technologies into their curriculum.
- 4. Studying energy is an excellent way to introduce students to science concepts and processes included in the National Science Education Standards.
- 5. Implementing energy-efficient lesson plans at an early stage of child development will provide long-term benefits, such as an increase in awareness and lower energy usage over time.

Bring ENERGY STAR to the Classroom!

In an effort to promote energy efficiency within the District, the DMPS Energy Team wants to help teachers discuss this valuable message in the classroom. Director of Facilities Jamie Wilkerson and Energy and Environmental Specialist Dave Berger would like to visit interested schools and classes. From light bulb efficiency to heating and cooling, discussions are intended to educate students on the efforts the District is making and how they, too, can make an impact. To schedule a visit, please contact Sarah Holland at extension 7860.

Website Fun

Here are some fun websites to increase your energy awareness at home or in the classroom!

- <u>ENERGY STAR Kids</u> is a fun, interactive website to help get kids involved in energy efficiency.
- <u>CLEAN</u> has a collection of Climate and Energy educational resources. Test your energy awareness by answering the quiz questions found here. Many of the answers contain links to references, datasets or spreadsheets that can be used to further explore these topics.
- US Energy Information Administration's <u>Energy Kids</u> has games, activities, history, and teacher resources.

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SITE ENERGY USAGE REPORT

July 1, 2015 to June 30, 2016

There was an 8% decrease in the total number of degree days during the comparison timeframe. Degree days provide a way to evaluate the amount of fuel required to heat or cool a building by comparing average daily temperatures to a standard temperature of 65°.

Percentage change compared to same time period of previous year.

Site	Total Energy (mBtu)	kBtu/ SqFt	% Change	ENERGY STAR Score	Site	Total Energy (mBtu)	kBtu/ SqFt	% Change	ENERGY STAR Score
Smouse	2,669	50	-50.30%	89	Greenwood	1,627	26	-7.20%	97
Samuelson	1,371	23	-35.40%	99	Park Ave	1,891	29	-7.20%	98
Brody	5,108	52	-23.80%	95	Willard	2,364	40	-6.80%	95
Walker St	1,730	43	-21.50%	71	Central Academy	4,290	50	-6.20%	57
Studebaker	1,353	30	-18.70%	97	Capitol View	2,858	38	-6.10%	97
Van Meter	4,148	72	-17.00%	76	East	22,641	66	-6.00%	89
Phillips	1,856	44	-16.80%	92	Taylor	1,428	32	-6.00%	89
Hubbell	2,281	43	-16.70%	95	South Union	1,959	29	-5.50%	97
Moulton			-16.40%		Welcome Center	858	138	-5.00%	N/A
	6,030	50		95	McKinley	2,415	48	-4.80%	89
Merrill	4,067	43	-15.50%	99	Goodrell	2,991	27	-4.50%	97
Hoover/ Meredith	15,633	52	-15.20%	94	Woodlawn	1,130	24	-4.20%	N/A
Hiatt	3,065	28	-15.10%		Madison	1,530	36	-4.00%	97
Garton	2,605	40	-14.10%	77	Brubaker	2,370	30	-3.30%	97
Hillis	1,669	29	-13.70%	97	Howe	1,382	36	-1.60%	87
Central Campus	23,823	52	-13.30%	92	Windsor River Woods	1,545	26 53	-0.90% -0.20%	97 93
Jefferson	1,349	29	-12.30%	92	Walnut St	3,414 8,157	70	-0.20%	22
Weeks	4,407	39	-11.70%	96	North	10,849	43	0.20%	93
Mitchell	1,093	34	-11.50%	76	Hanawalt	1,548	36	4.00%	93
Prospect	4,809	91	-10.80%	47	Wright	1,231	41	5.60%	87
McCombs	3,781	43	-10.10%	98	Perkins	1,616	25	5.70%	98
Carver	1,998	22	-10.00%	97	Cowles	1,939	44	6.90%	71
Harding	4,065	32	-10.00%	97	Callanan	5,357	46	7.30%	90
Cattell	1,852	39	-9.70%	100	Edmunds	1,609	21	10.10%	98
CNC	11,565	206	-9.30%	N/A	Oak Park	2,020	34	16.00%	95
Dean	3,195	33	-9.00%		Stowe	2,035	36	27.70%	91
Findley	1,339	31	-8.50%	96	Morris	2,272	32	29.00%	94
·					Jackson	1,853	41	31.50%	90
Lincoln	21,412	68	-8.30%	86	King	1,633	30	36.40%	95
Lovejoy	1,432	37	-8.10%	92	Kurtz	4,647	44	52.80%	75
Monroe	3,416	46	-7.80%	93	МсКее	1,113	26	55.30%	52
Pleasant Hill	949	23	-7.60%	99	2323 Grand *	2,773	56	N/A	98
Hoyt	5,251	52	-7.40%	96	Mann **	1,119	27	N/A	N/A
Roosevelt	15,147	63	-7.40%	84	Moore **	1,389	27	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

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

^{*} No comparison data for 2323 Grand
** Partial year data available for Mann or Moore due to renovations. No comparison data.