Georgetown ISD

Energy Management

Energy Tips

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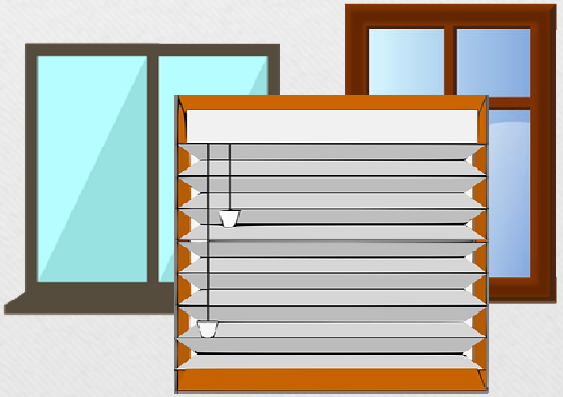


Building Envelope: Air Leaks

Inadequate seals around windows and doors can allow air to enter/escape our indoor environment, requiring HVAC equipment to use more energy. Fall is a good time to identify and properly seal these leaks. Submit a maintenance work order for drafts that may need attention.

Windows: Lighting & Warmth

Natural lighting has been shown to provide significant health and performance benefits. With summer heat subsiding, fall can be a great time to utilize natural sunlight through windows during daytime teaching hours, and can even help keep classrooms comfortable on cool days. Just remember to close blinds/curtains at the end of each day to help insulate windows from nighttime temperatures. TIP: Get students involved by allowing them to open and close window coverings at the beginning and end of each school day!





Georgetown ISD Energy Management

Energy Tips





It's almost SUMMER!!!

Before you go, follow these tips:

- Recycle (paper products, cardboard, empty plastic/metal containers)
- Clean out refrigerators, turn off mini-fridges
- Unplug classroom appliances; Take personal appliances home if no longer needed
- Close blinds/curtains
- Adjust manual thermostats
- Turn off lights
- Close doors

- Tech Equipment:
  - Student devices should be powered down, placed into carts, and securely locked.
  - Only iPad carts need to remain plugged in to keep devices charged. Chromebook carts and laptop carts do not need to be plugged in.
  - Desktop computers, projectors, & interactive displays (big TV's) should all be powered down but can be left plugged in.
  - Teacher laptops should go home with the teachers unless they choose to not take them, in which case they should bring their laptop, AC adapter, and sleeve/case to the Technology Department Office at the GISD Technology & Nutrition Services Center (OLD Central Office), 603 Lakeway Drive, where the Technology Department will store the laptop over the summer.



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Energy Tips

Earth Day is April 22nd!

We love our planet, so let's all do something thoughtful on Monday 4/22/19 (while we're out of school!).

- **Plant something!**
  Do some landscaping, plant a tree, build a flower box, plant fresh perennials or annuals, put in some bushes…



- **Enjoy the outdoors!**
  Get out there and take a hike, go to the lake, site-see for your favorite animals, or feed some critters. Enjoy the fresh air of spring time and walk or ride a bike instead of driving for the day.

- **Volunteer for the environment!**
  Join a group or grab some friends and pick up litter in your local park or clean up an overgrown community area.





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Energy Tips

Based on recent electric consumption, your campus could power this many average homes:

Carver: 79 homes	
Cooper: 50 homes	
Ford: 53 homes	
Frost: 64 homes	
McCoy: 75 homes	
Mitchell: 71 homes	
Purl: 81 homes	
Village:45 homes	
Benold: 111 homes	
Forbes: 116 homes	
Tippit & Pickett: 223 homes	
Wagner: 119 homes	
EVHS: 502 homes	
GHS & Richarte: 618 homes	
GAP: 7 homes	

= 10 homes



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Energy Tips



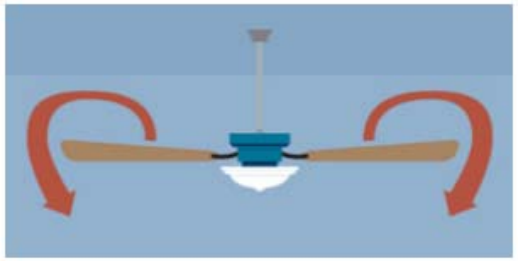
Simple winter tips:





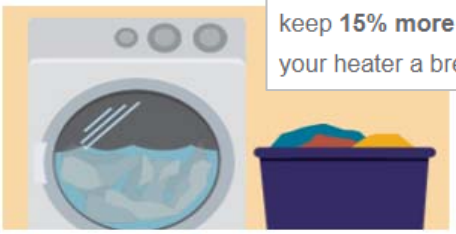
Cozy up to a comfy sleep.

You don't have to overwork your heater to stay toasty. Simply close your curtains to keep **15% more warm air** inside and give your heater a break.



Flip that fan.

Make your ceiling fan run **clockwise** to push warm air down into the room.



Do laundry for less.

Wash clothes with cold water to save **up to 11%** on water heating costs. Clean your dryer's lint filter increase its energy efficiency by **up to 30%**.



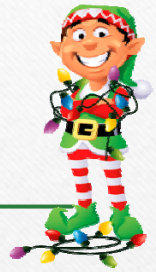
Lay down a rug for more heat

You'll not only help insulate your floors, but you'll cut down on the noise too.



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Energy Tips





Estimated cost of electricity to light a 6ft tree for 12hrs/day for 40 days:

TYPE OF LIGHT	COST
Incandescent C-9 lights	$10.00
LED C-9 lights	$0.27

Be Bright This Holiday!

Time to light things up in a conscientious way! Here are some reasons to use LEDs for decorating this season:

- **More efficient:** LEDs consume far less electricity than incandescent bulbs (which saves money).
- **Safer:** LEDs are much cooler than incandescent lights, reducing risk of combustion or burnt fingers.
- **Sturdier:** LEDs are made with epoxy lenses, not glass, making them more resistant to breakage.
- **Longer lasting:** The same LED string could still be in use 40 holiday seasons from now!
- **Easier to install:** Up to 25 strings of LEDs can be connected end-to-end without overloading a socket.

Other Holiday Tips to Save Energy:

https://www.thebalanceeveryday.com/how-to-save-energy-during-the-holidays-1387910



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Energy Tips



Reducing Landfill Waste

All GISD campuses utilize single-stream recycling, which allows for many different types of materials to be collected jointly without sorting or separating (not just paper!). Elementary campuses reduce landfill waste even more by composting, which we hope to expand to our secondary campuses in the future. ***Remember to recycle!***





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Energy Tips



Woohoo, it's SUMMER!!!

Congrats on another great year! Please "power-down" before you go and have a fantastic break!!!

- Recycle after end-of-the-year parties
- Completely clean out large refrigerators
- Unplug microwaves, unused chargers, coffee makers, etc.; turn mini-refrigerators off or take them home
- Follow the advice of your campus technology team to put computers and other electronic devices in low-power or no-power mode
- Close blinds and curtains on windows
- Adjust HVAC (raise temperature settings or adjust to "warmer")
- Turn off all lighting; take lamps and accessory lighting home if you don't plan to use them next year



Enjoy your summer!



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Energy Tips





Personal Appliances

Mini fridges, microwaves, coffee makers and Keurigs…do we need all of these appliances in our classrooms and workspaces? (YES! For goodness sakes, *YES*!!!) Okay, while some of these items may serve a valid need, others may not be necessary. Each of us should make a conscious effort to limit the quantity of appliances in our workspace. Better yet, many of us may be able to completely eliminate having personal appliances in our workspace.



- Consider utilizing shared appliances, such as larger breakroom options or appliances that are shared by several staff members within team spaces.
- Consider making your coffee at home and bringing it in a thermal container if you like a particular brand.
- Remember that Keurig machines can create a lot of unnecessary waste due to the individual cups. Consider a more environmentally friendly option (recycling is good, but not generating extra waste in the first place is even better).



Too much stuff?
Clean it out. Expired and/or unnecessary items require your fridge to work harder & use more energy.





Not much in there?
Take it home. If your fridge isn't well utilized, you may be better off using a shared fridge.



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Energy Tips



Lighting: When to Turn It Off

In most cases, your best bet is to go ahead and turn the lights off anytime you leave a room.
https://energy.gov/energysaver/when-turn-your-lights

Incandescents

Always turn these off when not in use. Incandescent bulbs are extremely inefficient, with the majority of their energy output resulting in heat (not light). If you're not utilizing the light output from your incandescent bulb in your classroom or workspace lamp, definitely turn it off.

Halogens

Though not as inefficient as standard incandescent bulbs, halogens are still far less efficient than fluorescents or LEDs. **These should always be turned off when not in use.**

CFLs (Compact Fluorescent Lamps)

This type of lighting is fairly efficient, though does require a short surge of energy when initially turned on and is impacted by the number of times it is turned on and off. These factors shouldn't be exaggerated, though. The amount of energy used to initially turn on a CFL is basically equivalent to a few seconds of normal operation. Turning a CFL on and off too frequently can decrease the life of the lamp and require the lamp to be replaced sooner. So when should you turn them off? **Anytime you will be out of the room longer than 5-15 minutes, you should always turn the lights off. When in doubt, turn them off.**

LEDs (Light-Emitting Diodes)

These are incredibly efficient lights and are not negatively impacted by being turned on and off frequently. **When not in use, turn these off.**



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Energy Tips





Valentine's Day parties…

- Send e-cards, make Valentine's Day cards from reused materials, or buy cards made from recycled paper
- Use live plants to decorate instead of buying cut flowers
- Opt for treats that aren't individually wrapped or packaged in single-servings
- Limit plastic party bags filled with plastic toys



Super Bowl parties…

- Send invitations electronically
- Encourage carpooling
- Opt for reusable dinnerware instead of disposables (the dishwasher help clean up)
- If upgrading your TV, buy energy efficient and donate or recycle your old one
- Send extra food home with guests or save/freeze leftovers for later

Green tips for ALL parties…

- Limit decorating waste, get crafty with reusable or repurposed materials
- Look for food & drink options with minimal packaging; buy in bulk
- Use recyclable or compostable cups, plates and utensils; avoid Styrofoam
- Set out finger foods, which typically require fewer plates & utensils
- Make recycling easy, set out recycle & compost containers for guests
- Recycle: aluminum cans, glass bottles & jars, metal lids, plastic containers, clean pizza boxes, paper decor
- Compost: food waste, soiled napkins, confetti paper, greasy pizza boxes, uncoated paper plates (Chinet)



Georgetown ISD Energy Management

Energy Tips



Holiday Break: Dec. 22 – Jan. 7

Holiday breaks are a *GREAT* time to save some energy!

Before you leave…

- Recycle paper & plastic items after holiday parties.
- Clean out & unplug small personal appliances (mini refrigerators, microwaves, coffee makers).
- Clean out large breakroom refrigerators.
- Charging Stations/Carts:
  - Allow devices to charge for at least 6 hours.
  - Turn the power off for each device (closing the lid does not turn the power off).
  - Unplug the charging cart.
- Shut down computers/laptops & turn off monitors, speakers, projectors, interactive whiteboards, document cameras, etc.
- Close blinds & curtains.
- If your building has manual HVAC controls with older thermostats, adjust settings (set heat to come on at 60 °F).

While you're gone…

- Use LED lights when decorating.
- Use a timer for lights so they aren't on during the daytime or overnight.
- Turn off room lighting when the tree is lit.
- Combine errands to reduce the number of trips you take. Several short trips taken from a cold start can use twice as much fuel as a longer trip covering the same distance when the engine is warm, according to Fueleconomy.gov.
- Turn the thermostat down when you're cooking and have guests over.
- Use flannel sheets to stay warm at night and save on heating.
- Buy gifts that don't use electricity or require batteries.
- Reuse gift bags & bows. Recycle packaging after opening gifts.



Georgetown ISD Energy Management

Energy Tips



Thanksgiving Tips

After you "power-down" your classrooms and workspaces for the Thanksgiving break, use these tips at home to continue saving energy…

Turkey

- Get the right sized turkey so you're not cooking longer than needed.
- Defrost the turkey in the fridge a few days ahead of time instead of wasting water thawing it in the sink.
- To reduce roasting time, cook the dressing separately instead of stuffing the turkey.
- Don't preheat the oven (it's not necessary when slow roasting over several hours).

Side Dishes

- While the turkey is in the oven, add side dishes that can be cooked at a similar temperature.
- Cook in glass or ceramic, as these materials hold heat well and reduce cooking time.
- Use flat bottom pans to maximize the contact between the burner and the pan for efficient heating.
- Use the right sized pots and pans on burners so they heat and cook efficiently.

After Dinner

- Use the dishwasher to greatly reduce water consumption compared to hand washing.
- Save energy by letting food cool before putting it in the refrigerator. (To prevent spoiling, don't let food sit out longer than 2 hours.)
- Freeze any leftovers that won't be used within a few days.

Courtesy of SaveOnEnergy.com



Georgetown ISD Energy Management

Energy Tips



October is National Energy Awareness/Action Month

According to a study by The Center for Green Schools:

- Energy costs are typically the 2nd largest operational expense after personnel for most schools.
- The EPA estimates that 25% of energy use in schools is wasted.

This indicates that we have significant opportunities to reduce consumption and save on energy costs, freeing up funding for educational resources that would otherwise be lost on utility bills.

SCHOOL ENERGY USAGE

Energy use in schools falls into three main categories:

HVAC (heating, ventilation, air conditioning) is usually the largest component of energy consumption, with natural gas typically used for heating and electricity for cooling.[8]

LIGHTING accounts for 25 to 50 percent of total electricity use. Lighting tends to be overlooked, as it runs in the background, and yet it consumes significant energy.

PLUG LOAD is the electricity drawn by equipment powered through wall outlets and has been measured at approximately 25 percent of a school's total electricity use. Plug load encompasses a wide range of equipment, including computers and monitors, copiers and printers, projectors, audiovisual equipment, vending machines, microwaves, coffeepots and refrigerators.[10]

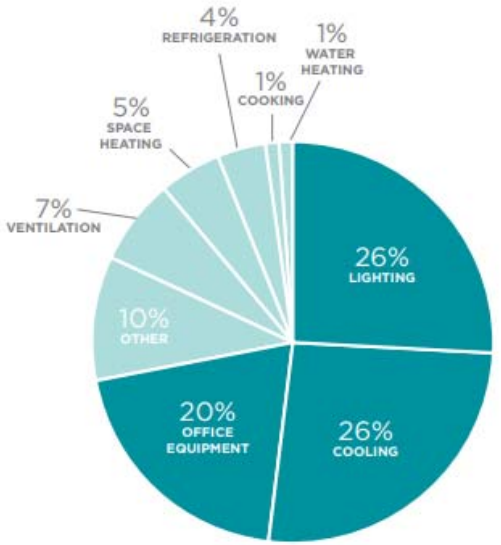


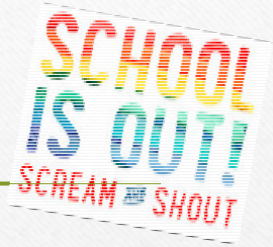
FIGURE 3 One example of electricity use within a school, though the profile will differ depending on a school's location and climate.

Credit: "E Source; from Commercial Building Energy Consumption Survey, 1999 data" in U.S. EPA, ENERGY STAR Building Upgrade Manual, 2008



Georgetown ISD Energy Management

Energy Tips



Hooray!!! It's Time for Summer Break!!!

Congratulations! We all made it through another successful and exciting year and now it's time for summer break!

Before you go, remember your "power down" routines:

- Adjust HVAC settings (raise temperature settings or adjust to "warmer")
- Completely shut down computers and other electronic devices
- Unplug any appliances like mini-refrigerators, microwaves, chargers, coffee makers (and take unnecessary items home)
- Close blinds & curtains on windows
- Turn off all lighting & plan to ask for a free LED bulb for accessory lighting (like lamps) from the GISD Energy Manager at the beginning of next year





Have a FANTASTIC summer!



Georgetown ISD Energy Management

Energy Tips





Save while you're away, in May!!! ☺

May is the month of field trips and other exciting school activities! Take advantage of the times when you are away from school buildings and save energy while you're away! It just takes a few thoughtful minutes to turn things off and unplug unnecessary items before you head out, and students are great at spotting opportunities for conservation!

This is a great month!!! Enjoy your activities and remember to power down before summer vacation!



Georgetown ISD Energy Management

Energy Tips

Celebrate Earth Day! April 22nd

Earth Day is a great reminder for all of us to think green in our daily lives. There are many different ways each of us can contribute to the sustainability of our planet. Check out **www.earthday.org** or research online for ideas on getting involved!





Georgetown ISD Energy Management

Energy Tips





Power Down before Spring Break

Let's save some energy! Before you go…

- (THIS ONE'S BIG) Adjust HVAC temperature settings so units don't waste energy while you're away
- Shut down computers, turn off monitors
- Clean & unplug small appliances (mini refrigerators, etc.)
- Unplug chargers
- Close windows, blinds & curtains
- Turn off lights
- Close doors

Lightbulb Challenge

Are there any lamps on your campus…in classrooms, offices, or elsewhere? Probably so. One really easy way to save electricity is to make sure we're using LED or CFL (compact fluorescent) bulbs for all of our lamps. Incandescent bulbs are known to be very inefficient, converting the majority of energy into heat instead of light (which also increases the load on our HVAC systems when it's warm outside). Good news is that it's **so easy** to make a change! See if you or your students can find any lightbulbs to upgrade.





Georgetown ISD Energy Management

Energy Tips



Tips for a Greener Super Bowl Party

- Send invitations electronically
- Encourage carpooling
- Limit decorating waste, get crafty with reusable or repurposed materials
- Cook or buy food/drinks in bulk to reduce packaging waste
- Plates, cups:
  - Skip the disposable dinnerware and opt for reusables (the dishwasher can help clean up)
  - Avoid polystyrene (Styrofoam), utilize recyclable/compostable options
- Set out finger foods, which typically require fewer plates/utensils
- If upgrading your TV, buy energy efficient and donate/recycle your old one
- Make recycling easy, set out recycling (& compost) containers for guests
- Send extra food home with guests or save/freeze for later



What do I do with this?

- Aluminum cans, glass bottles/jars = Recycle
- Plastic containers = Recycle
- Food waste = Compost
- Soiled napkins, confetti paper = Compost
- Greasy cardboard pizza boxes = Compost
- Clean pizza boxes = Recycle
- Potato chip bags = Garbage (unless recyclable plastic)
- Uncoated paper plates, like Chinet = Compost
- Clean, coated paper plates = Recycle
- Coffee grounds/filters = Compost



Georgetown ISD Energy Management

Energy Tips





Dress to Stay Warm

Everyone wants to be comfortable when the weather is cold outside. To help keep heating costs down and minimize the use of peripheral appliances like space heaters (which can pose a safety hazard), remember to bundle up and accessorize your wardrobe with items to keep you warm and cozy. Hats, scarves, thick socks, and sweaters help to insulate body heat. Layering clothing can keep you warm while giving you the flexibility to cool down, when needed. Keeping a sweater, wrap, or small blanket on hand in your work space can help keep you toasty. A warm beverage like coffee, tea, or hot cocoa may help, as well.







Georgetown ISD Energy Management

Energy Tips



Smart Options for Holiday Lighting

If you're looking to brighten your space with some holiday lighting, LEDs are a great option. Not only do they use 70-90% less energy, but they are also brighter, safer, and last ten times longer than traditional bulbs. Fiber optic decorations can be a colorful yet energy efficient option, too. Just remember to turn off or unplug all lighting when the space is unoccupied.

Conservation Over the Holiday Break

Holiday breaks offer an excellent opportunity for us to cut back on our energy consumption and save money for our schools. Before leaving for the extended holidays, take a moment to "power down" your space by completely shutting down computers and other equipment, adjusting thermostats (if needed), turning off lamps, closing curtains/blinds, and unplugging accessory items such as chargers and mini refrigerators. Small steps…big savings.





Georgetown ISD Energy Management

Energy Tips

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