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Photo by Kyle Fisher



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About the cover Photographers Ben Hao and Jerry Zhao used fishing line to string up objects representing each of the magazine's three sections — Japanese erasers for "at the surface," plastic Monopoly houses for "the space around us" and alarm clocks for "lost in time." Hao and Zhao also used the objects in the photos dividing the sections

## The fight against waste isn't a battle. It's a war.

**Sitting in the cafeteria** during fifth period lunch, facing Sam, your best friend, who's right across from you.

Smiling, laughing, remembering the funniest thing that happened during AP English 11.

Glancing down at your watch, noticing that there are 20 minutes left in the period, and despite knowing you can finish all your homework tonight, still wanting to get started so you can go to bed at 10:30 instead of 11 p.m.

But also wanting to spend some more time with Sam before cracking open the math textbook and graphing logarithmic functions.

Taking five more minutes with Sam, gulping three more bites of the Salisbury steak on your tray and having a sip of water before getting up, throwing away the halfeaten lunch and pouring out the nearly full cup of water.

Feeling anxious to knock out the precalculus assignment, sprinting across the Quad to grab your backpack and heading to the library, wondering if there could've been another basketball gym right below your feet as your shoes splash against the muddy grass.

Rushing to class, noticing that a middle schooler forgot to turn off the lamp at his library desk before leaving, but not having enough time to go back and flick the switch.

Crossing the Quad again, entering Hoffman and plopping down at your desk, ready to speak in Spanish for the next 45 minutes.

**Day to day,** it seems like the resources we have at our hands are endless. Plenty of options in the cafeteria. Water fountains in every building. Lights always on. A campus big enough to satisfy our needs.

But if we take a moment to step back and realize what we're wasting each day, what we have doesn't seem so infinite anymore. From those few bites of pasta thrown away to the ten minutes that flew by on the phone during a free period, we often squander more than we think.

And you might think it doesn't really make a difference in the long run whether you carefully choose how much food to put on your plate during lunch or decide to focus on making a dent in your homework during your free time. But we're here to tell you it does matter. And even the smallest differences count.

The water that goes down the drain, trash that's hauled off by dumpster trucks, lights that are left running when no one's there, extra room that's left unoccupied and minutes on the clock that tick away before you even know it all add up, even if we don't notice the difference immediately or personally.

Each of these may have to be addressed differently. The strategies we use to minimize water use won't be the same ones we use to conserve space. And we won't always succeed. But it's not about the battle. It's about the war.

-the editors

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Focus, a magazine supplement to The ReMarker covering a single topic, is a student publication of St. Mark's School of Texas, 10600 Preston Road, Dallas, TX, 75230.

# at the surface When we think about waste, we think about food, water and electricity. That's where waste is most obvious — whether it's in the dripping of a leaky faucet, the bottom of a trash can or the monthly power bill. In this first section, experts offer strategies to curb the waste you notice first.



#### Drip. Drip. Splash.

A shower head monotonously drips in the locker room, completely unnoticed by the freshman who finished his shower nearly half an hour ago.

Across campus, a malfunctioning sprinkler sprays a sharp arc of water into the air, soaking into the grass.

Unnecessary waste happens all across campus, but there are many measures Marksmen can take to reduce this expenditure — it just takes a little extra thought.

While it may seem like a cheap and abundant natural resource, water is becoming more and more precious in the Dallas area, its price going up ten to 15 percent each passing year.

"The cost of water is going up every year," Director of Physical Plant Mark Webb said. "Matter of fact, they had it on the news not long ago. So that's something that we watch closely every year, every month."

Despite having three LEED-certified buildings, achieved by 40 percent water use reduction, the school is looking to improve on current conservation efforts. Webb stresses the importance of efficient irrigation systems and smart landscaping. The school is always looking for new ways to conserve.

"I think one of the next steps the school should take is putting in a few of those rainwater harvesting systems," science instructor Dan Northcut '81 said. "It would be easy to do because most of our roofs on the whole campus are flat or slanted and come to gutters that channel the water to pretty much anywhere you want those gutters to go."

Once these changes are implemented, harvested water would likely go towards helping irrigate campus ground cover, significantly cutting down on water waste.

"Think about all the gutters we have on this campus and all the rainfall we have," Webb said. "We could capture all that rainwater that comes off the roof and then be able to store it and use it to irrigate our grass and trees and shrubs and groundcover."

One way to help prevent unnecessary water waste on campus is to be on the lookout for malfunctioning equip-

"Most people don't realize it, but

over half of Dallas's water is just

going to water lawns."

ment. Tell-tale signs of broken sprinklers are wet spots or puddles on grass. Students should report these issues to division heads or to receptionist and facilities scheduler Sher

facilities scheduler Sherri Sullivan at the front desk in Nearburg.

"Those kinds of things over a period of time use hundreds of gallons of water needlessly," Webb said. "So if the student body could just be conscious of that and report those things to us, we could get those things repaired a lot quicker."

Slipping through our fingers Every year, millions of gallons of water are used ineffectively. Only vigilance can eliminate water waste.

by Axel Icazbalceta, Austin Williams and Jonathan Yin Photo by Evan Lai

by the numbers

**I2** 

water meters on campus

IO

million gallons of domestic water used each year

8

million gallons of irrigation water used each year

170

irrigation zones on campus

Waste. Are we losing the war? 5

Dan Northcut '81, director of



Before walking out of the Great Hall, you have to gather your leftovers, walk to the conveyor belt and leave your food.

When turning in your physics lab, you have to cut out the directions, trim the sides off the graph and dispose of the paper.

What you don't think about is where that trash goes.

### Where does that food go? Where does that paper go? What about that leftover sandwich?

When it comes to the food left on lunch trays every day, Director of Environmental Studies Dan Northcut '81 says it goes straight to the landfill owing to health codes. However, Northcut remembers a time when that wasn't the case.

"In the old days," Northcut said, "we were able to give a lot of the food waste to a couple of the farmers in the area, and they would pick it up. It would go to the pig slop and stuff like that, so it would get consumed, but there's now city code. It's really difficult to do that"

Specifically, Northcut says the school's solid waste goes to the McCommas Bluff Landfill, located only 10 miles from downtown Dallas.

"It's a mountain of garbage," Northcut said, "but it's done nowadays in a much more sanitary way than in the old days where it really was just a mountain of garbage. Now it has to be sealed over. It's something that if you drove by it, you might not notice that that's a mountain of garbage because they've got grass on it. They're putting new garbage, day after day after day. When it gets to a certain height, they cover it up with soil and put grass on it. From the outside, it looks like a big hill. You wouldn't notice. It's an eye-opener."

To minimize what the school sends to McCommas, Northcut makes a concerted effort to "cut down [the school's] waste footprint," focusing primarily on the community's usage of single-use plastics.

"There are definitely things we can do as a school to cut down on our waste footprint," Northcut said. "One of those things we should pay more attention to is single-use plastics. I would like to see us definitely get rid of any single-use plastic stuff like those water bottles. Those single-use water bottles are just the devil when it comes to wasted material because the plastics are really hard to recycle anyway."

Although he had seen plastic usage diminish on campus, Northcut says a recent uptick in the single-use plastics he's seen on campus is concerning. Nevertheless, Northcut thinks some of the new devices in the Winn Science Center — such as the refilling stations — will help lower the

community's plastic usage.

From what's left of the plastic, Northcut says the school practices the blue bins system, which has significantly decreased our waste footprint.

"All our paper, cans, glass and all that could go into the recycle bins instead of to the landfill," Northcut said. "So that was a significant step for us to cut down on our waste footprint, and we've been doing that for over 25 years."

From the recycling bins, all the campus's recycling goes through single-stream recycling, where the recyclables are placed together.

"It all goes into one end," Northcut said. "The paper gets separated, glass gets separated out, any of the steel is separated and then aluminum. Out of the ends come these big bales of crushed aluminum bales and paper stuff. The glass all gets broken up and put into bins so that all that broken glass can go get re-melted [and] made into new glass. People will pick up those huge bales of aluminum, and the paper people pick up that, and then they go and make new aluminum cans or new paper."

"Your best intention is to divert or repurpose or reuse as many of the products as you possibly can."

> Richard McDonald, H-E-B corporate director of environmental affairs

Through these practices, Northcut says the community's waste footprint is comparable to the footprint of any other institution of this size.

"Our waste footprint is no more significant than anybody's waste footprint," Northcut said. "In terms of comparisons to other schools or anything like that, we don't have an abnormally large waste footprint. It's pretty comparable to any other high school."

**On a larger scale,** H-E-B Corporate Director of Environmental Affairs Richard McDonald manages the disposal practices of one of the largest supermarket chains in Texas.

"As a company," McDonald said, "our

goal is to be able to reduce our overall environmental footprint. That's inclusive of anything you do as a company. Greenhouse gas emissions, consumption of natural resources, increasing your level of reusable items and recyclable items are all things that we have in future planning — just being as socially responsible as we possibly can and making things for all the natural resources as good as we can."

Joining the company in 2016, McDonald says his first point of order was increasing environmental education in the industry and getting H-E-B to the forefront of environmental sustainability.

"The very first thing I saw that needed a change was an uptick in awareness for all of our partners," McDonald said. "Quite honestly, there are peer companies in our retail sector, and they have had some fairly robust environmental or sustainability programs in place for a really long time. Obviously, from H-E-B's standpoint, we want to be the absolute very best at what we do, regardless of whether we're selling groceries or we're taking care of the environment."

As a result of this awareness, H-E-B diverted more than 461 million pounds of waste from landfills and recycled 2 million pounds of plastic bags in 2017 according to its website, but this is just the beginning for McDonald and H-E-B.

"Future education is probably going to be a big deal," McDonald said. "So is looking for innovative ways to capture more products. We're looking at potentially having some reusable products or systems in stores where you may have some options to bring containers in to refill products that would traditionally be a single-use item. We have no firm programs in place right now, but those are things that as an industry, everybody is looking to."

As for continued programs, McDonald says H-E-B will maintain its program where customers are able to return plastic bags and outer films.

"We have collection bins at each store," McDonald said. "Most stores have two collection bins at the location to capture plastic films and specific bags that we internally run through a recycle process at H-E-B. We have a return bin center in San Antonio where all of those items are collected and sent back to. We do the sorting and collection at that processing facility and then move them on to the commodities market."

However, the items that can't be recycled still have to be sent to landfills, as is standard for all retail disposal.

"We have a contractual agreement with a nationally known disposal firm like most of the other retail businesses do," McDonald said. "Obviously, if you don't recycle your product, if you don't repurpose it or find out a way to reuse it, landfill is the general standard practice for disposal."

Nevertheless, McDonald says H-E-B is looking to achieve zero-waste status in the coming years.

"We're all trying to move more towards that zero waste ultimate goal," McDonald said. "That's a big goal to get to, but traditional practices were — and still are to a large percent — to landfill some of the items that you have to get rid of."

"Reducing food waste is good for

the planet. It helps slow down global warming - there's an economic, environmental and social benefit to conserving food." Brandon Barnes, SAGE district manager

Clean up Lunch time every day sees hundreds of plates, stacked with food, deposited on the cleaning counter.

Before walking out of the lunch room, you gather your leftovers, walk to the conveyor belt and leave your food. Just how much do you waste?

## Thrown away by Cooper Ribman Photos by Ben Hao

School facilities go to great lengths to reduce food waste from lunches. "We have daily food production logs at all of our schools that allow us to forecast in advance food usage and record waste," SAGE District Manager Brandon



A staggering number According to the U.N. Food and Agriculture Organization, roughly a third of food produced in the world is wasted, including 1 billion food items annually from U.S. schools.





Reducing our footprint With the appalling statistics of food waste in mind, the first-ever national food loss and waste goal in the U.S. was launched in 2015, calling for a 50 percent reduction by 2030.



On lunch tables in the Great Hall, though students encouraged to take only what they know they will eat, food is left to be picked up by cafeteria staff and thrown away.

# Leftovers? Here's what happens next.

by Cristian Pereira, Ishan Gupta and Ethan Borge Photo by Ben Hao

#### outside our gates

Local restaurants also have their own methods to reduce waste, from composting to conservation.

"Liberty Burger proudly uses tree-free compostable napkins and packaging and reusable bags for take-out meals. We recycle all packaging and donate empty bottles to local homebrewers and artists."

Liberty Burger, givemelibertyburger.com

"Everything [**Garden Cafe**] serves is made from scratch with fresh ingredients. We even source many of our herbs and vegetables from our own organic garden surrounding the beautiful patio! We serve humanely produced pasture-raised eggs, direct trade coffee, local grass-fed pastured meats."

Garden Cafe, gardencafe.net

"[Bellagreen] fast, casual restaurants offer an outstanding dining experience while ensuring we reduce our ecological footprint through water conservation, alternative power, chemical and pollution reduction, sustainable food practices and sustainable furnishing and building materials."

Bellagreen, bellagreen.com

#### What's for lunch today?

It's often a question Marksmen ask themselves when they enter the lunchroom, only to be met with a myriad of options. There's something for everybody.

Soon, your tray is full. Meats, pastas, carbs, salads and, of course, paninis fill the plates of the dining hall.

But some isn't eaten.

Some doesn't even leave the lunch line.

As a growing world problem, food waste affects our community — more than we sometimes like to admit. So how does SAGE Dining Services, the food provider at 10600 Preston Rd., handle food waste on a daily basis?

Campus SAGE Food Services Director Erin Woods says one of the key strategies to save food at school is through a strategy

called "batch cooking."

"We establish how much food we think we will need for the whole day," Woods said. "For instance, if today it's 200 pizzas, we build them all and then we batch cook. We will start off the day with maybe cooking 50 pizzas, and then as we go throughout service, to also give the best quality we can, we will cook more."

This cooking strategy not only saves time but also makes it easier to handle excess food.

"If we end up with ten extra pizzas, there's a couple things we can do," Woods said. "We can freeze them, we can utilize them for concessions that may be coming up if it's in a short time frame or we also sometimes partner with a local soup kitchen and donate anything that they would have use for."

Food that's prepared but not served is either donated or, in some circumstances, disposed of.

"If it's been heated, we cool it down to below 40 degrees to make sure that it's safe for reheating," Woods said. "Then, we package it — 90 percent of our extra food that's edible or repeatable is donated. And then if it's something such as rice or just three pounds of pasta, those items do end up in the trash."

Woods also says that another good strategy used to save food here is to order ingredients in bulk for use in multiple dishes.

"We do cross-utilization," Woods said.
"For instance, if I had chicken fajitas, and then maybe I had something like Philly cheesesteaks, I might order onions in one time and use those for multiple dishes."

However, SAGE doesn't want to sacrifice quality or safety. To make sure its food is up to standard, the staff follows certain guidelines.

"We don't reutilize," Woods said. "One of the main reasons why we don't do that is for freshness and quality, but also allergens. We really focus on keeping everyone safe. Products that have already been used in one recipe are not adaptable to new recipes."

SAGE also makes sure to order food from the best providers it can.

"We partner with local vendors," Woods said. "Those vendors are all interviewed



A thoughtless task It's easy to throw out food without thinking much about the work that went into making it.

and vetted through our home office and our purchasing department to make sure that we're getting the best quality."

After ordering, it's time to decide how much food to prepare. This as well is a meticulous process.

"We take a lot of information in and use our experience and planning in advance to order the appropriate amounts as fit for our menus," Woods said. "We use ratios in the recipes and our common knowledge. We also have to account for catering and days off."

**Woods also trains her staff** to learn how to be more efficient with food.

"I take time showing them that the core of the celery is useful to make a vegetable stock," Woods said. "Or we can cut that up and put that into the chicken salad, for example."

Furthermore, SAGE has also partnered with Director of Environmental Studies Dan Northcut '81 to increase its conservation

"We make bags for him to feed his worms, chickens, compost and things of that nature," Woods said. "That way we can continue utilizing things that cannot be saved as best as we can."

Further up the totem pole, SAGE District Manager Brandon Barnes explains that company-wide, SAGE has systems in place to save food.

"We have daily food production logs at all of our schools that allows us to forecast in advance food usage and record waste," Barnes said. "This data is recorded daily by our chefs and is used to manage excess waste each day."

However, the food-waste policies at schools differ. Barnes says programs are tailored to fit the school's needs as much as possible, a responsibility that is very much handled by the director of food services at the school

"Each campus is unique in their own way," Barnes said. "We tailor our program requirements and policies to align with each school's expectations and desires. Other than food safety, no specific school is structured the same exact way with respect to policies."

Barnes says efforts to minimize food waste are not new — SAGE has always looked for ways to work on this.

"Sustainability has always been a focus,"
Barnes said. "Food waste in general is
typically a common topic we hear about at
many schools. At St. Mark's, the expectation's

to have plenty of food for everyone to enjoy."

Barnes says the food program here excels in terms of food waste. However, efforts are always being put forth to improve.

"I must say that the dining program at St. Mark's is one of the best in the area," Barnes said. "However there will always be the opportunity to enhance more scratch cooking as new recipes are being vetted for seasonality purposes all the time."

Barnes says that through his experience, when observing alternate food methods, strategies vary. All communities are different and therefore require tailoring.

"Eating habits have varied from different parts of the food industry," Barnes said.
"The vast difference of this is associated with portion sizes and moderation eating. Serving appropriate portions allows consumers to eat their entire meal and minimize waste. Our spotlight program helps promote this in our schools."

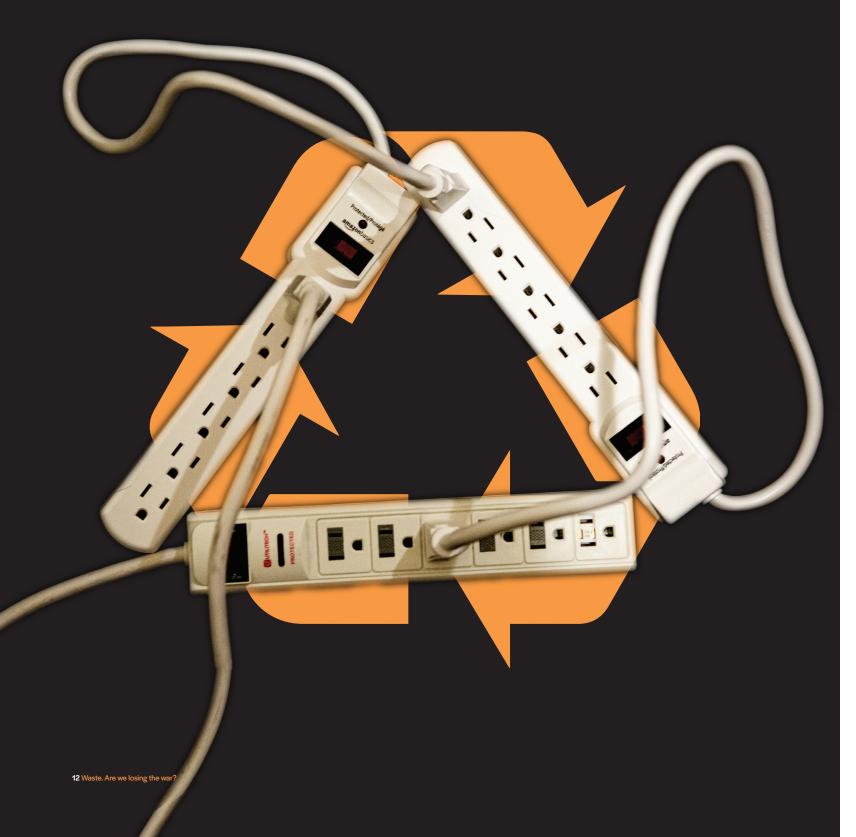
Overall, Barnes stresses the importance of conservation.

"Reducing food waste is good for the planet," Barnes said. "It helps slow down global warming — there's an economic, environmental and social benefit to conserving food."

10 Waste. Are we losing the war?

Waste. Are we losing the war? 11

## 



## do anything.

Almost everything in the U.S. is on the grid. Climate control. Lighting. Computers. Wireless internet routers. Televisions. Each

is entirely dependent upon electricity for

But energy is expensive — not only financially, but also environmentally. Big power draw means a big bill. Households, businesses and schools pay for energy consumption as much with carbon emissions as with dollars. With energy usage proving so impactful in the world, efficient energy management has become a key aspect in resource preservation.

On campus, energy is mainly drawn on power to facilities, according to Mark Webb, campus director of the physical plant.

"[Energy] is primarily used through our central plant mechanical systems," Webb said. "Through pumps, chillers and air handlers on the mechanical side. And of course, a large user would be the lighting."

Webb knows the financial toll consumption can have on budgets.

"Our school uses about four and a half megawatts to five megawatts of power a year," he said. "Over a year's time, you're looking at 260 to 310 thousand dollars. How we use our power and how much power we use makes a big difference in the bottom

One of Webb's main goals on campus is cutting down on electricity usage.

"It's one of the most important mandates from a personal level that I have," he said. "If my department is not looking at best practices, we're not doing our part for the school to make sure that we're doing something sustainable.

One important way Webb has been able to save energy is by converting fluorescent light bulbs to light-emitting diodes (LED), a cheaper and stronger light source. LED lighting cuts back on electricity use and the costs that come with it.

"A traditional light bulb will use 100 watts," he said. "We can go to an LED bulb that uses 15 watts. If you take a look at a classroom that has 30 bulbs in there that are 100 watts apiece and you take them down to 15 watts and you're changing over 15 classrooms, you're going to reduce energy usage by a lot."

Licensed campus electrician Stefen Glenn has been installing LED lighting wherever possible. He, too, believes fluorescent light

bulbs aren't as viable for campus lighting as newer LED panels.

"That technology is old, and LED is the way to go," Glenn said. "We went with these flat panel LEDs, and they hardly use any energy. It's way less than what florescent uses, and it saves energy and costs to run it. It's kind of a no-brainer."

Additionally, Glenn attests that the cheaper price of LED light sources provides for cheaper maintenance and installation.

"We paid \$35 apiece [for LED bulbs]," he said. "That's it. So we're saving electricity because it's cheaper to run it, but now we've also saved at least five times the money on maintenance."

"We have to pay attention to how we oversee 360 thousand square feet based on our years of experience."

Mark Webb, director of physical plant

Efforts to save energy here go beyond modernizing campus lighting. The school has a comprehensive energy management system capable of handling a wide range of processes.

"We're able to schedule all of our equipment in each building, our central plant and our lighting accordingly," Webb said. "So when we know that we have periods when there's not going to be a whole lot going on, we shut everything down early or we may not even run at all."

Climate control adds another complexity to energy management, especially once temperatures start rising as summer months approach.

"We run an extended period to make sure that we keep the buildings cool," Webb said, "because if we have to start up on a Monday morning, then we have to get everything pretty cool for the start of school. That can be costly."

Warming campus up in the winter can be just as challenging.

"If we have some cold snaps and some freezing weather, then we have boilers, pumps and air handlers preheat all the buildings," Webb said. "We have to pay attention to those two situations in how we [oversee] 360 thousand square feet, based on our years of experience and knowledge of how our campus works."

Newer buildings here were designed with environmental consciousness in mind. Centennial Hall and the Hoffman Center are both Leadership in Energy and Environmental Design (LEED) certified, and the Winn Science Center was also designed to a similar standard.

The building's systems include some of the latest in sustainable technologies.

"There are 200-ton air chillers on top of that building, separate from our campus equipment, that are energy efficient," Webb said. "There is a lighting control system called a wattstopper that trims back the lighting system to depending on how much daylight comes through the window."

LEED certification goes even deeper than installed technology.

"That building has been approved as a Silver LEED building," Webb said. "That has to do with a lot of different things — even the way the building was built and the levels of insulation installed."

They also take into account other forms of resource consumption, including water.

"[New toilets here] only use about half a gallon per flush," Glenn said, "In Centennial, Hoffman and the new science building, we have those waterless urinals, so there's no water used at all to flush. The less water we use, the more we're going to save."

Currently, the school sources its power through the TXU Energy company, with contracts in place until 2028. As the school prepares for the future, on-campus renewable energy could play a role in sourcing power — once technology catches up with the demands here. Solar panels could eventually be implemented to provide some power right from campus rooftops.

"With technology [today], we can only get so much out of them," Glenn said. "We'd still have to have the other resources to provide power for when there are rainy days or at night. There's a lot of stuff on this campus that takes energy, so we would have to have a huge solar panel system here."

As the efficiency of alternative energy sources increases and costs correspondingly stabilize, 10600 Preston Rd. could rely more and more on generating its own energy. Becoming greener environmentally saves a different sort of green — letting the school expand its opportunities in other areas by managing our energy use.

It's about power, not just electricity.

going for gold Three steps 10600 Preston Rd. can take to boost its sustainability, achieve LEED Gold certification and waste less electricity.



Use sustainability metrics such as Arc that track water, waste, energy, transportation and human experience

Keep up with changes to building code in order to stay current with changing

Ensure school runs energy-efficiently and continue to monitor for inefficiencies in the system.



**In February 2013,** the Dallas City Council adopted the Zero Waste Plan, a systematic effort to ultimately reduce waste in Dallas. The incremental goals for the initiative are to reduce waste by 40 percent by 2020, 60 percent by 2030 and 85 percent by 2040, but the city failed to achieve the first milestone.

Joining the Dallas City Council in 2013, when the Zero Waste Plan was first put into place, councilwoman Jennifer Staubach-Gates knew there was a greater need to work on recycling in the city of Dallas to account for the overflowed landfills.

"In that time, we built our own recycling plant," Staubach-Gates said. "We outsourced it, but it's on our property here at the landfill. It was an environmentally conscious movement with the rest of the city, state and country of getting to zero waste."

Delving deep into the process, Staubach-Gates knew there would be many different difficulties ahead but was willing to press forward to address such a pressing issue as waste.

"We knew it would take long and there would need to be different policies that would be made during that point forward," Staubach-Gates said. "We'd have to probably modify and change our timeline, but we felt it was important to go ahead and adopt the policy."

City of Dallas Division Manager of Environmental Quality and Sustainability Danielle McClelland has reworked the goals of the Zero Waste Plan to cater to different needs as the years have gone on.

When the Zero Waste Plan was adopted, there were some specific timelines and strategies to help us accomplish our goals," McClelland said. "When the city council realized we weren't making significant progress for that first milestone, the city council accelerated the timeline for multifamily recycling to provide the service to more Dallas residents. The multifamily recycling ordinance went into effect Jan. 1 of this year."

Running for election, Staubach-Gates started to realize the importance of the multifamily recycling plan and the movement to the Comprehensive Environmental and Climate Action Plan, an initiative by the city of Dallas to eliminate greenhouse gas emissions by 2050.

"It is important to realize what percentage of residents live in apartment complexes. It's almost 50 percent," Staubach-Gates said. "So when you are only recycling in 50 percent of our population, it is important we get on with multifamily recycling. We put both of these policies on hold while we

#### Short term

- Marketing & Outreach
- Multifamily/Commercial
- City Facility Zero Waste
- Organics Diversion
- Disposal Bans
- Producer Responsibility

are formulating and adopting the Climate Action Plan."

Another way the city has promoted waste diversion is social marketing and social media.

"Up until that point, it wasn't a focus area for the city to reach out directly to residents to tell them environmental messages," McClelland said. "There's a lot of information and messaging that's pushed out on the city, through our social media channel @dallaszerowaste. Our website has a lot of great information and our social media channels do, too. But in 2013, it was all a new realm for the government to operate and provide information."

On top of the work with social media and the web, the city has been spreading their purpose by going door-to-door

#### by the numbers

20

percent diversion rate of waste citywide

50

percent of population in Dallas who were unaccounted for in the 2020 report

60

percent of diversion rate as a goal for 2030

85

percent of diversion rate as a goal for 2040

and organizing workshops.

"We have a series of workshops — over the course of the last year about 70 — in partnership with the greater Dallas area to spread the word," McClelland said, "and we've literally been going door-to-door to make sure that the property owners and managers understand what the ordinance requires. It helps their residents know how to recycle and what goes into containers."

influencing change through media and going door-to-door, both Staubach-Gates and McClelland realize that the way to give importance to recycling and waste management is by education, as recycling often isn't a priority for families.

As well as

"When you have families who are balancing more pressing everyday quality of life, education is really key," McClelland, "so there is a requirement in Dallas's ordinance that makes it easy for people to understand what can be recycled and where the containers go."

#### Middle term

- Organics Collection
- Universal Recycling Ordinance
- Resource Recovery Park
- Disposal Bans

After the city's first analysis on the diversion rate of the city, they realized the number only captured about half of the city's population living in homes. The first reports of this new number are due in February 2021, which will better capture the full picture of all of the city of Dallas.

"We are at about a 20 percent diversion rate city wide, but that only captures half of the city of Dallas," McClelland said. "We didn't have an accurate diversion measure up to this point because we just didn't know how much recycling was being collected from their property. Anyone who is collecting recycling in Dallas has to provide the city an annual report of how much recycling they're picking up so we can get a better assessment of what's being recycled in Dallas."

By talking to other cities about their individual plans, Dallas formulated its own unique plan of action when deciding what to do with its version.

"One thing about Austin is they were one of the early adopters for mandatory programs," Staubach-Gates said. "We've learned from analyzing the program and also talking to these other cities about what is working and what's not working. All of that was incorporated into crafting Dallas's version."

"How do we absorb the growth and do it in a manner that we're conscious of our environmental footprint?"

> Jennifer Staubach-Gates, Dallas city councilwoman

Looking to the future of waste management plans, McClelland understands how our particular system in Dallas works to create real solutions.

"The change is driven by resident interest in finance, so our public is very engaged," McClelland said. "That's how Dallas has been able to do the kinds of things we have."

Staubach-Gates realizes there is a boom in population in Dallas, and to solve the city's biggest problems, she believes there has to be a way for the city to absorb the growth in order to move forward.

"We're seeing people and corporations relocate here, so being able to absorb that population growth and the infrastructure demands that come with it is key," Staubach-Gates said. "That's why we, as a city, are looking at adopting the Climate Action Plan. We are planning for the future and planning how we're going to use our resources and minimally impact the environment."

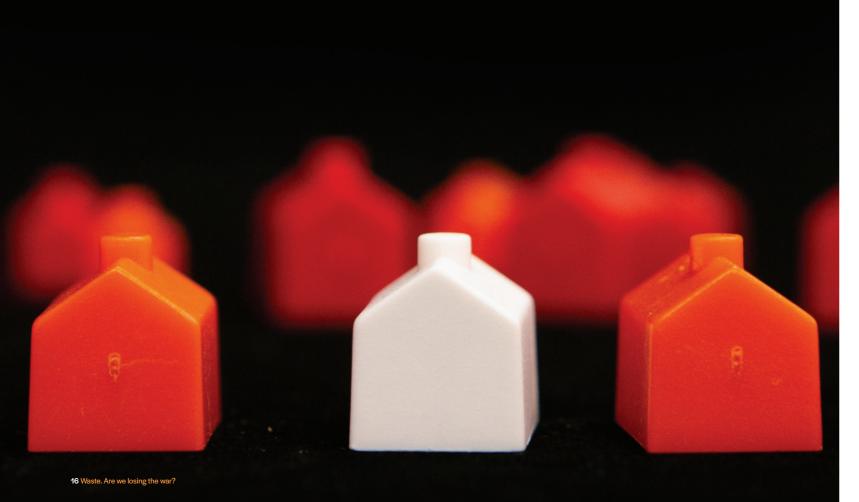
#### Long term

Evaluate Emerging
 Technologies

The punch list In accordance with a thorough evaluation of Dallas's diverse needs, the Zero Waste Plan outlines a number of specific goals that the city will implement in various phases over the next 20 years in order to accomplish zero waste.

# the space around us

It might take just a second to look around and see what's going to waste. Not the lights left on or the food still on the plate, but the space left unused or kept from full capacity. In this second section, we cover the space we use and try to point out what's left forgotten.



#### Making the most of classrooms.

8 a.m.

Time for class.
Fifth graders file into
Humanities instructor Donna
Mullett's class, taking their
seats.

As the students sit down in their desks with their feet dangling above the ground, Mullett has an interesting wish.

Better desks.

There's nothing different about the desks. Many Marksmen have sat in those very same seats.

But Mullett knows that her class can be that much more productive.

Students, faculty and administrators here are constantly seeking ways to make the school both more efficient and more productive with the space that we have, whether it be through new tools or technology.

Mullett's wish for better desks isn't only for productivity but also for providing a better experience for her students in general.

"I believe in best practices for boys," Mullett said. "This is probably not the most ideal furniture for ten-year-old boys. It's immovable, their feet can't touch the ground and it's not very flexible."

At the People of Color (POC) Conference in Nashville, Mullett found her ideal classroom environment.

"I saw counter-height tables so students could stand at work," Mullett said. "If they chose to sit at a stool, they had regular desk seating, and then they had a lower one where you could sit on cushions on the floor. There were three different levels of height, which would give my students some choice and

Mullett also believes that having different shaped desks could be beneficial to the student learning experience as well.

"I'd really like to be able to have a small round table that I could sit around with four or five boys and do an editing lesson while other boys are working," Mullett said. "It's not really easy to set that up in my room. I would like the furniture to be lighter or have different kinds of shapes."

Mullett believes that her students would enjoy the ability to choose seating arrangements from the many options in her ideal classroom.

"They would have the ability to choose how they're doing their work, whether they're standing or sitting on the floor," Mullett said. "I think having that choice will allow them to fit to their natural way of



possibilities
If utilized,
online
classrooms
can give
students
access to a
wide variety
of courses
without
occupying
excessive

working. Instead of being forced to work in the seat I give them, they can make their own choice."

Mullet has also found a way to incorporate technology into her class to make it more efficient.

"There are two things that are different when the students have computers," Mullett said. "First of all, we get through the work faster. When they have the machines in my room, they all get [work] done, and I can see it in Google Classroom. The other thing is they edit in front of me. Before, I never said, 'You have to edit this and turn it in by 3:05 p.m.,' because we didn't have access to computers, but now I can. It helps because I can get them to turn it in faster, and they also have less homework because I don't have to ask them to word-process at home."

However, Mullett sometimes finds difficulty using technology as well.

"Sixty to 70 percent of my students have a laptop, and then I go to the Middle

"There are so many things that would be faster to teach if I could just do them with the students."

Donna Mullet, fifth grade humanities instructor

School office and I borrow seven," Mullett said. "That's maybe fifty percent of my kids today. We could have an exchange through technology but because not every student has a computer, I can't do that. I could walk around and look at everything. It's much easier to use Google Classroom."

Overall, Mullett believes her request for better tools and technology would allow her to use her classroom more efficiently than otherwise.

"These changes would make my classes more productive because I think the boys would enjoy the flexibility," Mullett said. "They would be more focused on what they were doing."

Associate Headmaster John Ashton has seen first-hand the school's many efforts to become more efficient, especially technologywise

"We, over a decade ago, had a formal relationship with the Global Online Academy," Ashton said. "That partnership was set up to allow for boys who were interested to take more online courses. They had a lot of elective courses as a way to offer boys courses that we may not offer or that might not fit in their schedule."

However, Ashton said, students never really took to online classes.

"The boys wanted to take the brick and mortar classes that we offer here on campus," Ashton said. "They wanted access to the teachers. They wanted to go to class. They wanted to be in class with their peers."

In place of online classes, Ashton believes, is the increased usage of websites like Blackbaud.

"We have migrated to using learning management systems in more expanded ways such as Blackbaud," Ashton said. "Some teachers use it to a much higher degree than others might, posting activities, videos or notes to try to use an online platform in a way that helps boys have access to the coursework and other learning resources that are only available when you're at school. I think in that regard we've seen some expansion in the way that technology is used here on campus."

Ashton believes the efficiency and productivity of student work depends on flexibility.

"I think there are great tools available to us now," Ashton said. "I believe strongly that we want to maintain choice for students. We all learn differently. We all want to interact with textbooks or resources in different ways. Some people are visual. Some folks might just want the audio. Some folks really want to sit quietly and read, make notes and write in the margins."

Ashton has found a way to appreciate the learning differences in students and believes that the school will continue to offer flexibility in the resources that are offered to the student body.

"The greater flexibility we give boys and the greater tools available to boys to choose what ways help them learn best is a philosophy that I would use to guide us in our thinking," Ashton said. "I'm grateful that we have so many resources available."

by Paul Sullivan and Darren Xi Photo illustration by Ekansh Tambe and Tyler Nussbaumer

# Every single square foot matters.

by Sid Vattamreddy, Trevor Crosnoe, Jack Davis and Luke Nayfa Photo by Ben Hao

As class sizes gradually increase, the impact of how we decide to use space on campus becomes more and more critical. What is the school doing to ensure Marskmen and faculty members alike feel the balance between efficiency, convenience and flexibility?

Nearly 170,000 square meters, or 42 acres, make up the campus at 10600 Preston Rd. With over 850 students and 175 full-time teachers attending school each day, the efficiency of the utilization of space on campus is constantly an important issue.

For Headmaster Ďavid Ďini, using space in an efficient manner connects back to the school's very mission to educate the whole boy and prepare students for adulthood and a meaningful life.

"Efficiency hits a lot of different areas," Dini said. "It's a part of a lot of different aspects of the way the school operates. We're a school that is deliberate, intentional and thoughtful and thinks about leveraging our resources for the greatest impact in everything that we do. Our desire would be to be as efficient in our use of our resources as we possibly can be."

However, Dini asserts short-term efficiency isn't always the priority for the school. Rather, the school looks at ways to be efficient in the long run without compromising its core values.

"We want to give ourselves as much flexibility as possible," Dini said. "We don't know exactly what the needs are going to be five, ten, 25 years down the road, so it's a balancing act of trying not to make rash decisions that might compromise future decisions. If you tighten up the efficiency model down too much, then you get to a point of tension and constriction that might inhibit our ability to achieve really important goals that we've set. There's this balance, and we want to be right in the middle, not overly inefficient and not overly efficient."

To achieve this goal of long-term efficiency, Dini and the school's administration team work closely with the Board of Trustees as well as takes advice from professional campus planner Jeff Blanchard, who serves as the school's campus master planner.

"I look at everything through the lens of student experience," Blanchard said. "So when I look at space, the first thing I'm looking for is, does it satisfy the program or the coursework that it's trying to support?"

But because of the school's fluid nature, there's always work to be done to improve efficiency on campus.

"Work changes, space needs change — lots of things can have an influence on that, and we are always evaluating whether the inventory of space on campus matches the portfolio of student experiences," Blanchard said.

Though Dini admits there are more aggressive, perhaps more efficient methods of using classrooms and scheduling classes, he maintains that the flexibility the school provides to faculty members enhances students' learning experiences.

"Increasing efficiency comes with some flexibility cost, some convenience cost," Dini said. "We are able to give faculty more ownership of the rooms that they teach in because they tend to teach in their own room as opposed to in some schools, a teacher might teach in a different room each period. Teaching in-residence, in a particular room, gives more ownership and more



Minimizing space waste The school's effort to equip the Winn Science Center with shared lab prep spaces allows for multiple labs to take place at the same time.

personality to classrooms and labs."

Dini points to the newly constructed Winn Science Center as one area the school made multiple conscious decisions to balance short-run and long-run efficiency while trying to minimize the waste of space.

"When we designed the Science Center, we visited a lot of other schools and looked at a lot of other science buildings," Dini said. "We thought a lot about things like whether it makes more sense to consolidate laboratory prep space and have a technician prep each lab beforehand or to create shared lab prep spaces adjacent to each lab like we ultimately did."

That was a conscious decision that had space impact, square footage impact and convenience impact.

"Our decision allows us to have more flexibility to slightly tweak a lab or to have multiple labs happen at the same time," Dini said. "We're constantly looking to achieve that balance between flexibility, efficiency and convenience."

As the school looks to rebuild the Hicks Athletic Center that had to be demolished due to damage caused by the tornado this past October, Dini emphasizes that the school is still keeping in mind the same balance it did when constructing the Winn

Science Center.

"We're already asking those questions as we think about the future of that space," Dini said. "How do we go about rebuilding in a thoughtful, deliberate way that not only anticipates our needs for three, five years, but hopefully for ten, 25 and 50 years down the road? A lot of what we did with the Science Building was to try to anticipate needs that we can't even see and can't predict. We wanted to give ourselves flexibility for the future, and that's a constant balancing act of trying to anticipate. That's why we engage a lot of professional counsel."

Blanchard also echoed the importance of actively monitoring and anticipating the school's needs when planning future remodels or expansions.

"We're constantly evaluating the needs of the curriculum versus the space the school has," Blanchard said.

Looking down the road, Dini says the space in Chapel and the space in the Decherd Auditorium are places where the school might look to tweak to accommodate more students and the increased Upper School enrollment.

"At Chapel, we're pretty close to full capacity, and at assembly, we're right there

too," Dini said. "Those are all things that we think about. We're going to continue to live with that for some period of time, but at some point, we will look into expanding those spaces, but it's always a balancing

Blanchard identified the Rogers Natatorium as a location that could potentially see changes in the future.

"The pool could be deeper to better satisfy the needs of the water polo team," Blanchard said. "It's got a shallow end and it could also use a couple extra lanes so that we could host events better."

Ultimately, Dini stresses being 100 percent efficient in the current moment is far less important than being efficient in the long run and giving the school the flexibility it needs to achieve its goals.

"In some ways, it may look like we can be a little more efficient in certain areas, when in reality, we're trying to be proactive and give ourselves flexibility for the future," Dini said. "We can't measure efficiency in a single column — there's too many factors. If we looked at factors in isolation, it might lead us to make decisions that look efficient, but really cost us down the road. That's why we're constantly evaluating how to leverage our resources for the greatest impact."

#### in my opinion

Students and instructors around campus share their thoughts on the school's overall efficiency of space utilization and give suggestions on how to improve the campus' approach on area usage.

"We already use our spaces to the most of our ability so I feel there isn't much to change. For the amount of students we have, we are using our space in the most efficient way."



Bruce Westrate, Nancy and Marcus Master Teaching Chair

"I would like for us to have more free space, especially in the library, because it's the perfect space to do homework, check out books or do anything else you need to do."



Wes Jackson fourth grader

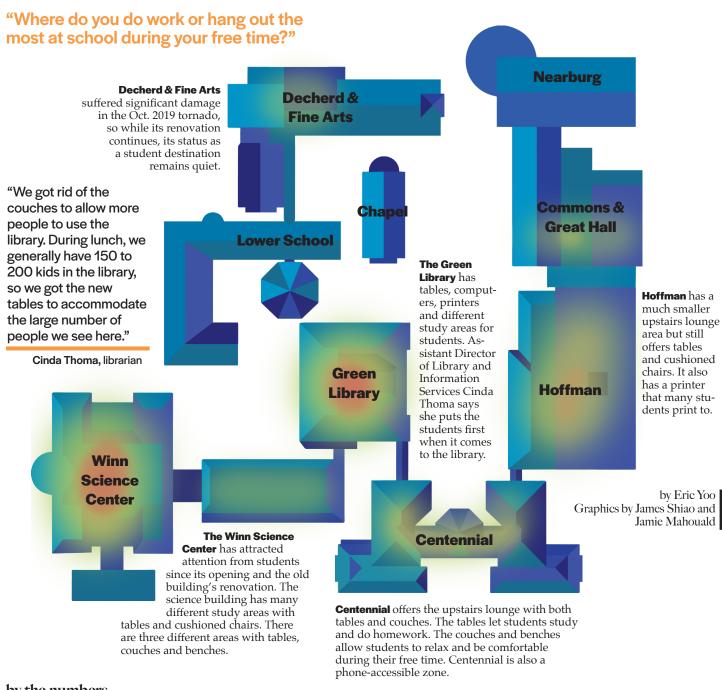
"Our science building could be used more effectively. It would be nice to have more seating areas and more comfortable study areas for a wider variety of students."



Klyde Warren, junior

#### Where we go, where we stay.

Based on a poll that garnered more than 200 responses, the Green Library, Winn Science Center and Hoffman are the most popular places for Upper Schoolers to spend their free time at school.



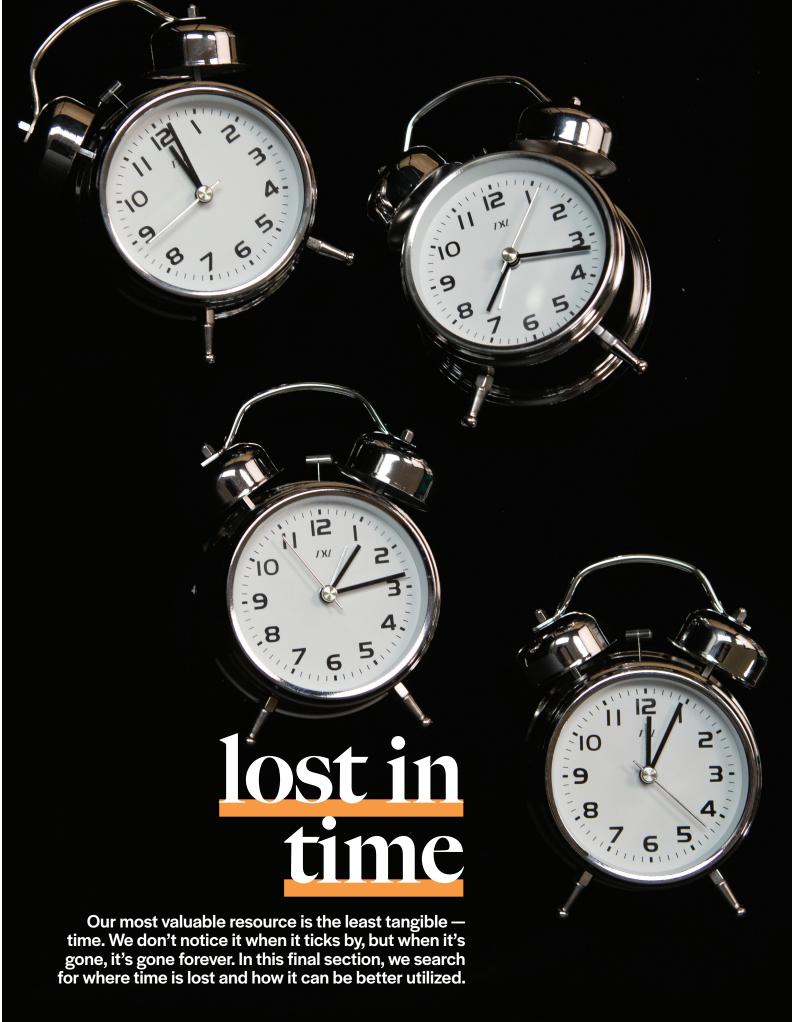
#### by the numbers

percent of students in

percent of students percent of students in who spend their time in the library

percent of students in

percent of students in



#### A complete waste of time.

by Wallace White and Peter Orsak Photo by Jerry Zhao

**The alarm goes off** at 7 a.m. every morning for Max\*. Five days a week.

He takes his time getting out of bed, brushing his teeth and getting ready. He glances at his phone just to check his notifications.

After browsing his Snapchat, Instagram and TikTok, it's already 7:20 a.m, and he needs to drive his sister to school.

After dropping off his sister, he heads to school. After arriving, he opens his laptop and browses the internet.

And just like that, it's 8:30 a.m., and he has no idea where the time went.

For Marksmen, time is a valuable commodity. It often is the determiner of your grade, your sleep and your mood.

But humans are inefficient with time, and Marksmen are no exception.

Max pays good attention in his classes, but when there's a free period, he sometimes takes the opportunity to enjoy some free time.

Max represents the composite Upper School student. During his free periods, his time usage can depend on a variety of factors. Maybe Max has a problem set due next period or a paper to work on.

But that doesn't stop him from wasting time. Maybe chatting with classmates or being on his phone looking at Instagram.

According to the U.S Bureau of Labor Statistics, the average American teenager spends much more time with leisure activities per day than the average working adult. However, the average teen, as expected, spends countless more hours with educational activities than the average adult.

Students at 10600 Preston Road, however, spend more time on homework than the average teen. Max usually spends about three to four hours, while the national average is about 2.8 hours.

"The expectations of what you all are to know and to remember is enormous," Coordinator of Academic Support Julie Pechersky said. "There was a time in school where you could just be present and wing it and do okay, but as you get older, it gets harder and harder, and you get to a point where you can't just base your successes on your innate intelligence. It's very easy to get burnt out here if you don't find a way to balance yourself, and the only way to do that is to manage your time well."

The school values time quite a lot, and it can be easy to take that time for granted. We do generally make our time count, but one thing is certain

When we do waste the day, it's always in the little things.

"I don't think there's a lot of time during the day on campus to waste time," Pechersky said. "You guys are pretty busy. I would say in Middle School, the boys probably don't make the best use of their study halls. They're on Most of our first 18 years will be spent in school. And we only get so much time a day at 10600 Preston Road. Yet we still find ways to let the hours escape us.

the computer listening to music rather than studying, but I'm a believer that when you get a break, you can take a break."

According to Pechersky, students need to find a balance between enjoying their free time and studying.

"I think you need to find a balance, and it just depends on the person," Pechersky said. "If you have three core classes in a row, then I think you need to take a break. I think you need to get out, walk around and get some fresh air. Your brain can only handle so much information."

Pechersky believes students mostly waste time because of their disinterest in certain subjects.

"The reason students procrastinate is their false or unrealistic sense of time."

#### Julie Pechersky, coordinator of academic support

"If you're not interested in writing a research paper, it's easy to put it off," Pechersky said. "It goes back to just knowing yourself knowing what your obligations are, and sometimes it's easier or better to get the harder things done first, just to get them off of your list."

Max often waits to start his homework until midnight. Pechersky says this wasting of time is because of poor time management skills.

"They think, 'I've got all the time in the world,'" Pechersky said. "Motivationally, it's just not always easy to jump in and do things that you don't necessarily want to do, but if you manage your time better, you will realize that it's a lot less stressful."

Time management is one of the main keys to success for Marksmen, according to Pechersky.

"One of the best ways to be successful here is to be able to manage your time," Pechersky said. "It's very easy to be like that hamster on the wheel where all you're doing is looking at what's due the next day — check the box, check the box — you never really get ahead. You never really get the information to resonate and actually learn it."

Pechersky thinks that avoiding cramming is crucial to avoiding stress.

"I think once students realize that if you can find a way to break up your nightly homework so that you're not cramming two or three hours into one session, you end up being more efficient, you get finished faster, and it's less stressful," Pechersky said. "You need to learn how to break it up, and whether that means after lunch to take 30 minutes and go somewhere to study or what; I know study halls can be distracting, but finding a quiet place to work is good."

To avoid cramming, Pechersky thinks students should find a way to plan out the week ahead.

"I think the people who are most successful find some way to organize," Pechersky said. "Whether they make a to-do list at night, they keep a calendar on their phone or a hard copy, students have to find out what works best for them, but some method of organization and planning. I think it's just a critical piece of going here."

According to Pechersky, this prioritization of time is critical to success.

"If you know you've got a busy night ahead of you, it's probably in your best interest to use all of that time to study, but if you have some more flexibility, I'm a firm believer that everybody needs to take a break," Pechersky said.

\*Max is a fictitious representation of the experiences of many combined Upper School students.

Crack open the textbooks After a long eight-hour day at school, a typical Marksmen returns home with hours of homework awaiting him.



#### 45 minutes.

In the classroom, it can be hard to squeeze content into one period.
And that becomes even harder when it's not all used well.

by Robert Pou and Will Pechersky Photo illustration by Ben Hao, Jerry Zhao and Tyler Nussbaumer

**Every day of** every week during the school year, students spend hours either in the classroom or doing homework.

The never-ending process of learning and studying takes up a lot of a student's life.

But is all that time spent listening to lectures and participating in class discussions beneficial? Could some of that time be used more efficiently?

The answers to these questions are extremely important. Every minute should be taken into account to ensure that time spent doing school-related activities is maximized, none of it wasted.

English Department Chair Michael Morris understands the importance of avoiding wasted time in class.

"I really try to get us started on time, and I like to leave maybe a minute or two for some banter and to let people adjust," Morris said.

Teachers use their own specific methods depending on the class to conserve time. In English classes, Harkness tables promote discussion and ensure that class time is well spent.

"I think there's something nice and symbolic about a Harkness table," Morris said. "When you have it in a classroom, there aren't a lot of alternatives. You're basically committing symbolically to a discussion because that's the piece of furniture you have."

In fact, Morris even attended the Exeter Humanities Institute, a conference hosted by Phillips Exeter Academy for English and history teachers to learn about the Harkness teaching methods.

"My primary takeaway from the Exeter Humanities Institute is that the process of learning is more important than the product of what you've learned," Morris said. "It's not so much about content as it is about the skills that you can develop in discussion."

The beauty of the Harkness method lies in the fact that discussions are student-led and directed. That being said, the teacher guiding the discussion keeps it moving forward, maximizing every minute.

"I have students talk with each other about what they've read, and sometimes it gets frustrating because people are repeating what's already been said and you feel like you need to move on," Morris said. "The teacher's job is to facilitate some of that progress, but the idea is that you guys working with each other to understand a text like Shakespeare's is worth much more than all of the information I could tell in a lecture."

Spending time in class to go over

homework can sometimes take away from the time needed to learn new material. But sometimes Morris allows his students to chip away at their work in class if they have a longer assignment.

"I don't like to take too much class time everyday checking homework because there's so many other things to do," Morris said. "If we're in a longer book or there's a longer piece that I think is going to take more than 30 minutes, we might well start the reading in class. I do try to make the most of class time."

Challenge Success is an organization associated with Stanford University that collaborates with schools in improving the student academic life.

Senior School Program Director Jon Kleiman and Director of Research and Programs Sarah Miles strive to achieve this goal for students across the country.

"We work with schools for an extended period, like a year or many years, and we will help them look at different areas where they might be struggling, relative to student stress and engagement," Kleiman said.

One of the biggest focuses on the topic of homework is the issue of quality versus quantity. Kleiman and Miles study this area as they examine how homework affects students' lives.

"Homework should not be assigned just to assign homework," Kleiman said. "If teachers are going to assign homework, we want them to be really intentional about why they're doing it."

Students tend to spend less time focusing on their homework if they find that it has no value. That's why engaging work is essential.

"When students experience homework as not having purpose or meaning, they become less engaged in school," Miles said. "They're likely to be less motivated. They will do other things while they're doing homework, like social media or watching YouTube. So that adds to the quantity because they're not getting it done as efficiently."

Too much homework can be detrimental

Fuery second counts

With only 45 mintues per class, budgeting time for students and teachers can be difficult.

to the productivity of students. According to Challenge Success, after about two hours of homework, a high schooler passes the point of diminishing returns.

"When there's too much, other things don't happen like they should," Miles said. "Sleep doesn't happen as much as it should. Time with friends doesn't happen. Family time doesn't happen. So the trade off of having too much homework is that other things that we know are really beneficial for balance and for the rest of your life, fall off the plate."

Of course, all discussions regarding time spent completing homework can never arrive at a definite amount of time that's considered to be too much, since everyone works at a different pace.

"There's so much variability across students," Miles said. "What can take you 15 minutes, can take someone else a half an hour. So, it's hard to hone in on the perfect number."

In the end, class time and homework time should be beneficial to students as long as they are allotted a moderate amount of time and the workload does not interfere with other equally important activities.

"One of the things that we try to help teachers understand is that you can provide a really rigorous experience, really challenge students' thinking," Kleiman said. "But that does not mean it needs to translate into hours and hours of homework for students," Kleiman said.



## Stuck in a slump.

#### Jack Genender is tired.

He's the stage manager for the fall play, this year a musical with a large cast, so he sees his management responsibilities double, triple, quadruple as the "hell week" before the show approaches.

But he's also a junior, so every week is "hell week." He shouldn't have to do homework while watching over the pandemonium of the production, but part of him believes he must in order to keep up with the daily grind.

"My issue is the lack of empathy that teachers have when giving out this workload," Genender said, "and their inability to see that students have other things they want to prioritize, but cannot."

To Genender, it's just frustrating.

But where does that frustration come from?

The bottom line is that 10600 Preston Rd. is an academically, athletically and extracurricularly rigorous school. Students who opt to take advantage of the multitude of opportunities on campus will find that there is little time left over to simply sit down and relax.

"If you go to school from eight to four and then you have athletic practice, eat dinner, do your homework and go to sleep," Director of Counseling Barbara Van Drie said, "where's the blank time? It doesn't exist. And nobody has an appreciation for that."

But Genender does not blame his irritation on any facet of his schedule in particular.

"The amount of work is something I cannot complain about," Genender said.
"Every student goes through about the same workload."

And while many students face challenges similar to Genender, whether they're in the drama program or not, each student has to tackle the issue of time management their own way. But sometimes no amount of grit and effort can help a student make it through the year. Junior Metehan Punar, an avid swimmer both on and off campus, quit

his teams sophomore year to make time for classes like honors algebra II and honors Spanish, both of which required intense preparation and study that the swimming team's tough practices and meets didn't allow for.

"It's not that the topics were too difficult," Punar said. "I just wouldn't have enough time to study for them. Most of the meets that we had were either on Tuesdays or Thursdays, and a lot of my tests would end up on Fridays. So not having enough time to study Thursday night, having to stay up until two or three in the morning to study for a test where you really need eight hours of sleep to do well on it just, results in you continually receiving bad grades."

After quitting swimming, Punar was not only able to raise his grades substantially but also get a steady seven hours of sleep a night — more than ever before. But Punar has swum for years, and although he is still able to swim with the club team from time to time, dropping it was a tough choice.

But this rigor, combined with quality teaching, courses and programs, is part of what makes 10600 Preston Rd. Without it, students lose part of the experience that has prepared so many Marksmen for college and the world beyond. So as the new schedule rolls in next year aiming to lessen the burden of daily homework by having classes meet less frequently, students must change with it by improving their own time management skills as well.

The first step, and an often overlooked one, is taking advantage of the resources and advice teachers are able to provide.

When junior Rishi Mohan, a water polo player and creator of a music therapy program, found himself in a rut with anything, he turned to his advisor Geoffrey Stanbury for help, bouncing ideas off of him and asking questions about next steps to take when any problem arose.

"I don't think if you're truly pushing yourself you should be able to do it alone," Mohan said. "That's why we have an advisor system, that's why we have a counseling office, that's why we have all these great teachers."

But even for a student like Mohan who has found academic, athletic and extracurricular success, it's important to recognize one's limits. While campus is filled with numerous opportunities that students may want to pursue, there's only so many hours in the day, and attempting to push beyond that can have consequences.

"This year and last year math has been my hardest class," Mohan said. "And maybe the extra time I put into that subject has cost me in other places. Last year I didn't make the all-state orchestra because in the weeks leading up to my audition date, I was just swamped with math stuff and community service stuff."

The choice of whether to stick with or drop an activity, however, should be determined not by whether it will look good on their résumé, but how much they enjoy it.

"Think about all the things you're doing: Are you doing them for college, are you doing them to make your parents happy, are you doing them because you find fulfillment in them?" Mohan said. "If you've heard the saying, 'If you enjoy your work, then it

doesn't feel like work,' maybe a lot of it feels like work because you don't enjoy doing it, and you should really consider if you're doing it for the right reasons."

For the students who seek to go beyond what is required, time management is a critical skill that next to nobody has perfectly mastered. Julie Morgenstern, a time management expert and author of six books on organization methods, sees high school as fluctuating and difficult time—yet one with great potential for growth and development.

"When you're always late, you become stressed, a lot of cortisol shoots through your brain and we get paralyzed," Morgenstern said. "We freeze, and we don't know what to do first and we end up procrastinating and doing nothing at all."

Instead, one should first recognize that time management is a mechanical skill, rather than a psychological strength or deficit.

"And when you master it, you can make clear choices," Morgenstern said, "and you organize your day in a way that gets you to peak performance rather than goes against your energy cycle. There are so many techniques that can solve the problem. It's a much more mechanical problem than people realize, because they think about it psychologically."

Morgenstern encourages people to create a time map to help think about this problem as a mechanical set of skills rather than an intrinsic trait or characteristic to a person, and the basic large-scale units for our time are the 168 hours in a week.

"That's your container," Morgenstern said. "I think of organizing time like a closet, it's a limited amount of space, it's only going to fit so many things. If you have all your stuff thrown in any which way, you have no idea what you have. You have no sense of the balance. You want to approach your time like a closet: it's only going to fit so much."

For most students, this closet contains classes, studying, social life, extracurriculars and time to themselves. After blocking off seven to eight hours a day for sleep, students should budget their time according to their needs and work as closely to the plan as possible without becoming robotic.

However, blocking off time to do homework or other responsibilities isn't enough on its own. According to math instructor and Junior Class Advisor Amy Pool, students tend to lose time simply because they aren't focused enough on even their every day assignments. In her honors precalculus classes, Pool asked students to work for only 30 minutes on her homework, but during those 30 minutes the student must be fully concentrated on each problem. No responding to that text message. No distracted conversations. Just 30 minutes of pencil on paper.

"When you feel like you don't have enough time, it is very hard to be present because whatever you're doing, your mind is focused on what you're not doing, which compromises the quality of whatever you're doing."

Julie Morgenstern, time management expert

"When I asked the students how many people felt like they were more focused and more efficient doing their homework, in both sections 40 to 50% of the students raised their hands," Pool said, "which is an indication that there's a lot of time that students are losing for things that would create more balance in their life. They're not figuring out how to be focused and efficient while doing their homework. And I want my students to have downtime to go out and play without having to sacrifice sleep."

The second biggest waste of time is procrastination. There is an undeniable culture of procrastination on campus, resulting in last minute, three hour frenzies to complete the paper that was assigned weeks ago. The problem, according to Pool, is because students tend to finish their work despite procrastinating, they are never punished for bad time management and never notice the burden they've given themselves.

"What you don't realize is how much stress you are self-creating," Pool said. "So even though you don't feel like there's a consequence, there's a consequence. You are paying a cost for procrastination that you don't realize. If I had a magic wand and could use it to remove procrastination as a strategy from all students in St. Mark's for a month, I think that there would be a lot of students at the end of that month, who would go, 'My grades were just as good,

maybe better, and I feel a whole lot better. I feel like a healthier person.' But the problem is if you don't know what it feels like not to procrastinate, you have no comparison."

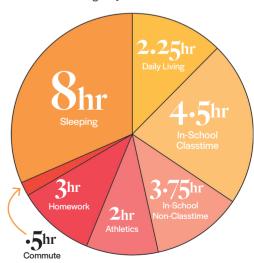
The challenge for each student is to find a system that allows them to pursue the maximum amount of opportunities they want to while providing a healthy working environment that mitigates the stress school brings every day. No matter which strategy a student ultimately decides upon, the last crucial piece is leaving room to just relax.

"You need to give math the same sort of focus you would want to give to a sport while in the middle of a game," Pool said. "That's really hard to do for three hours straight. So, it needs to be, 'I'm going to do 30 minutes of work, and then I'm going to walk away and take a five minute break. Then I'm going to return to do 30 minutes of something else."

by Jamie Mahouald and Luke Piazza Graphic courtesy Barbara Van Drie Photo illustration by Jerry Zhao

#### day in the life

Here's a breakdown of an average day for a Marksman:



Fully booked Despite this diagram representing an ideal scenario, not even five minutes are left to sit down and do nothing. After eight hours of school and two hours of sports, students cannot afford to take a break.

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Waste. Are we losing the war? 25

## Professionally

## managed time.

to children's events, staying on track as an adult entails

much more than office work.

When dialed down to a day, an hour, a minute, a second, it can often be so hard to cram everything we want to and have to do in such tight slots. So how can we fit everything into those hours, minutes and second? How do we manage our time? by Colin Campbell and Aaron Thorne Graphic by Cooper Cole

#### **PAUL GENENDER'87**

As a Marksman from 1979 to 1987, Paul Genender felt as swamped as his two sons, junior Jack and freshman George, do today. And now, as Alumni Board President, member of the Board of Trustees, full-time dad and *D-Magazine* winner for Best Business & Commercial Litigation Lawver, Genender's time is as valuable as ever. Having to maintain a log of everything he does as a part of his profession, Genender shares some of the challenges and secrets of balancing his

"When you have extracurriculars that really Paul Genender '87 matter, which involve a person other than vourself, then you have to become really efficient with your time because your kids' events are so important. They are non-negotiables. You're going to be there if it's humanly possible, but then you have to work everything around it. You have to be really efficient, really proactive and really smart."

"One of the most important things that allows me to be efficient with my time is I do a couple little things every day to invest in myself. I do some sort of cardiovascular exercise in the morning almost every single day. It is good physically, good mentally and good to get into a groove, and it's one thing every day that I can control. The other thing is that you've got to get enough sleep."

"I'm in a profession where there are tremendous expectations for being responsive and responding immediately to clients. That is important, but it has to be within reason. Otherwise you don't have any time for yourself and you're completely at other people's disposal all the time, as opposed to enough of the time.

#### **FRASER MARCUS '72**

Fraser Marcus's days are always filled up, often working from 5:30 a.m. to 10 p.m. As the chairman of the board of an eastern European bank, manager of his own advisory practice, member of a number of consumer finance businesses, an advisory worker for multiple large family offices, Chairman of the Investment Committee at 10600 Preston Rd. and father of a

Marksman Marcus has a lot on his plate. He shares some insight into how he effectively manages his busy schedule.

"When I first started in investment banking, my senior partner at Solomon Brothers gave me the best advice I've ever had, and I pass it on to everybody. He said to me, 'the difference between a good pilot and an ace is an ace knows what to ignore in a

Fraser Marcus '72

"Detail is incredibly important in what I do. The most important thing also is when you're very busy, you gotta follow up with everything. You can't leave people that you promise to do things for unfulfilled. I tend to write lists. I keep pretty active to-do lists, both electronically and manually. That repetitive review of what's on the docket and what has to be done when — consistently doing that with myself, my partners and my colleagues — is very important."

, Paul Genender felt
Jack and freshman George,
1 President, member of the
1D-Magazine winner for
the language Connectors

KATHY CROW

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Hockaday and St. Mark's, Kathy Crow's time is her me
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The language Connectors of As a mother, a wife and a member of the boards of SMU, Hockaday and St. Mark's, Kathy Crow's time is her most valuable resource. Even if they may be unconventional, such as waking up at 3 a.m every morning, Crow has found strategies that work for her to best organize her busy days.

> "I've just decided that I really wanted to put my time into boards and do that. I love education, and it has kind of become the thing that I like to focus on. So I've been on the St. Mark's board. I'm also on the Hockaday board and on their executive committee, too. I'm also on the SMU Board. That also means you have to join two school boards, so I'm on the Cox Business School Board and the Simmons Education School Board at SMU, and then I also sit on the Teach for America board here in Dallas '

"In order to be prepared and know what you're doing at the meetings, there's always a lot of reading to do. It's kind of silly, but I get up really early in the morning. To me, it's really quiet. It's just me, the dogs and my coffee, and I'm just kind of blissfully happy. I don't feel rushed. I feel really calm. It's just a quiet time for me to get all the reading done or prepare for the day. I really need that time in the morning."

"I do not use social media at all. One gift is I just haven't gotten allured into that. I just try to keep things pretty simple. With that simplicity, I think it's a little bit easier to just manage the things you have to do."

#### **DAVID MCATEE'87**

As the general counsel of AT&T, responsible for all the legal matters at the company for the last four years, David McAtee's work covers a lot of waterfront in the legal and business worlds, in addition to his full-time job as a father. McAtee offers some perspective about how he goes about managing his work when he has a lot on his plate.

"A normal day for me starts early. If you talk to just about any successful person, nine times out of ten, he or she is going to be an early riser. For me, the day always starts at about 5:30 in the morning, and I get most of my phone calls done first thing in the morning. By the time 10 a.m. rolls around, I've touched base with everyone I want to touch base with. And I leave the afternoon for working on important projects where you really need to think about things. That works for me, because after I talk to people in the morning, I know what everyone's working on and everyone's together — we're working as a team to move things forward."

"Something I picked up back in the day at Duke University — we called it 'units.' You study hard for 50 minutes, you take a ten minute break When you had to study for finals or get a paper done, you could get seven, eight, nine units done in a day. If you really put your mind David McAtee '87 to it, you knew that you were able to clear a bunch of stuff out by doing it that way. That's true in professional life, too. There are times when you've got to buckle down, and if you can schedule your breaks and have the discipline of keeping those breaks as scheduled, you'll crush whatever is in front of you."

"Everyone has to account for the unexpected. When I first started, I used to schedule all meetings back-toback-to-back-to-back. I try never to schedule meetings back-to-back anymore. I try and keep space between meetings. I tell my son, if you wait till the day of to do your studying because you figure, 'I'm gonna study right before my class, and then I'll take the test right away after my study hall,' the problem is you can't plan for the unexpected."

#### 3 tips for success

Our alumni offer important reflections and easy-to-replicate time management insights they've learned through their diverse experiences, whether juggling the agendas of several boards or feeling overwhelmed my mountains of paperwork.

"There are times when it is really important to be terribly inefficient and chill and just don't worry about it. When it seems like everything is caving in and I'm not going to get it all done, sometimes I'll just stand up and start laughing."

Paul Genender '87

about what you have great passion and a great feel. If you're in a situation that you're doing because you think you have to do it, and you don't really enjoy doing it, you're not going to do it very well. Try and find your passion, find something you're good at doing or you want to do and pursue it relentlessly."

"Leave time to let your personality come through. It's the truth. If you schedule your day so much that all you're doing is working, and all you're doing is thinking about the next thing you've got to get done, people won't get to know you as a person. Keep time in your schedule, to spend time with your boss, peers, people that you supervise, and team members."

David McAtee '87

Fraser Marcus '72

"I think it's most important is to find something

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