THE ECO-MAKEOVER

SAVING THE PLANET, GROCERY BAG, AND ICE

Ice caps are melting, coral reefs are shrinking, islands are sinking.... What to d
Eco-activists LAURIE DAVID and MATTHEW MODINE drop in on two families to give them ea

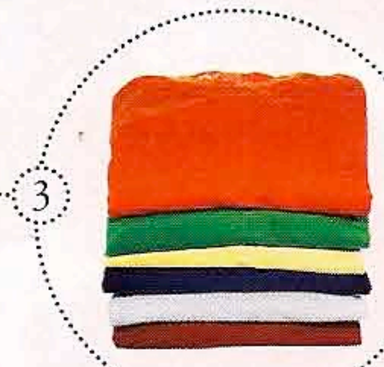
LAURIE DAVID

Laurie and NRDC consultant Evelyne Michaut (*in purple shirt*) show Debbie Perez how to make her house more earth-friendly.

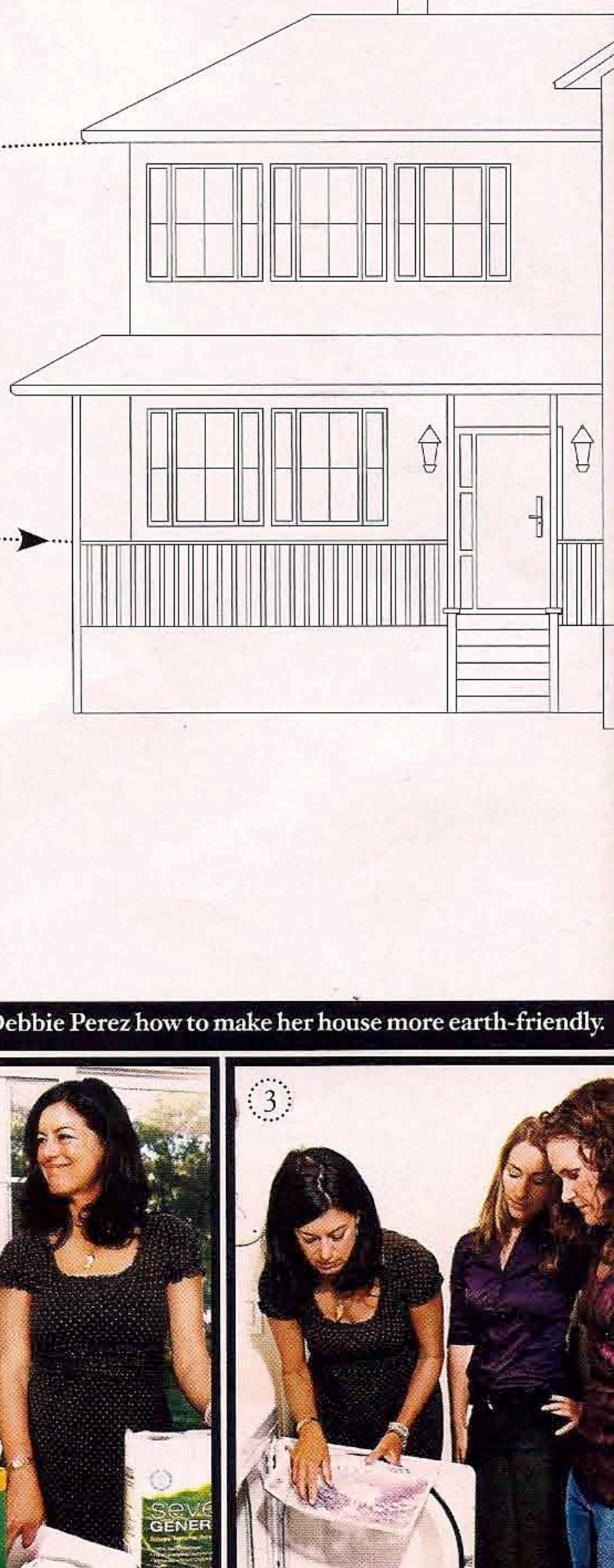
Cutting a shower by two minutes saves ten gallons of water.

Compact fluorescent bulbs use four times less energy than incandescent ones.

Recycled TP is scratchier than three-ply but much softer on the environment.



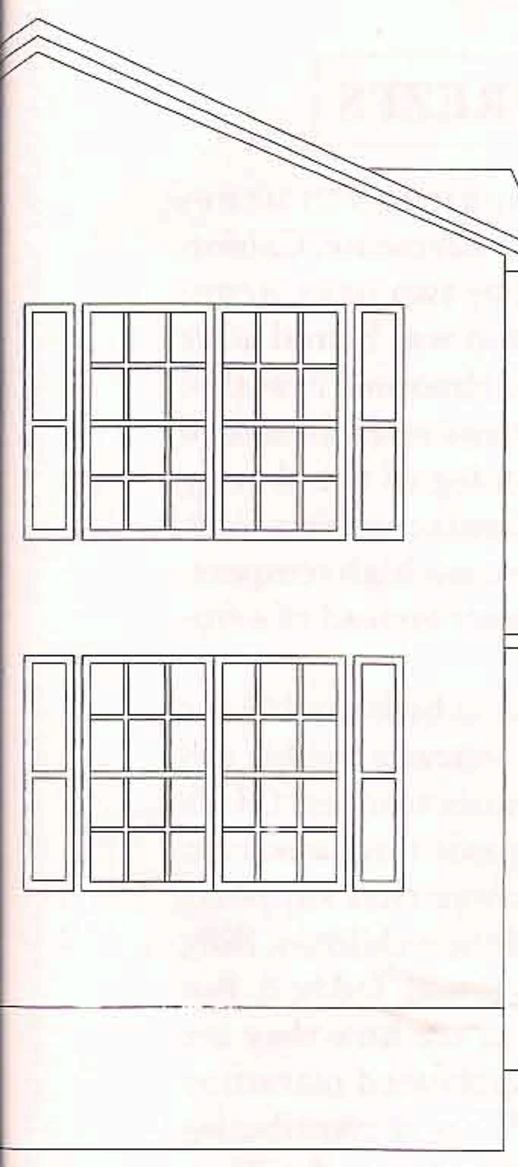
Removing lint from the dryer does a lot to reduce its energy use.



ONE LIGHTBULB, CREAM CONE AT A TIME

We can go directly to despair—or we can learn how to be a part of the solution. effective, and inexpensive ideas that—really!—can make a world of difference. **BY AIMEE LEE BALL**

PHOTOGRAPHS BY **NATHANIEL WELCH** • ILLUSTRATION BY **RITZCO**



Most paint fumes contribute to smog. Look for cans with "No VOC." We'll all breathe easier.

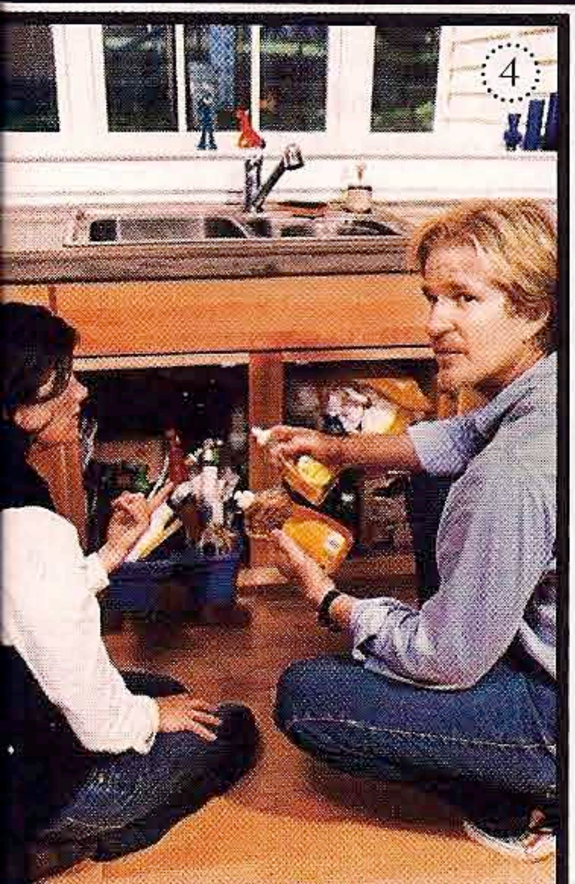
A cone beats a cup. Why? You eat the packaging (no paper or spoon to toss).

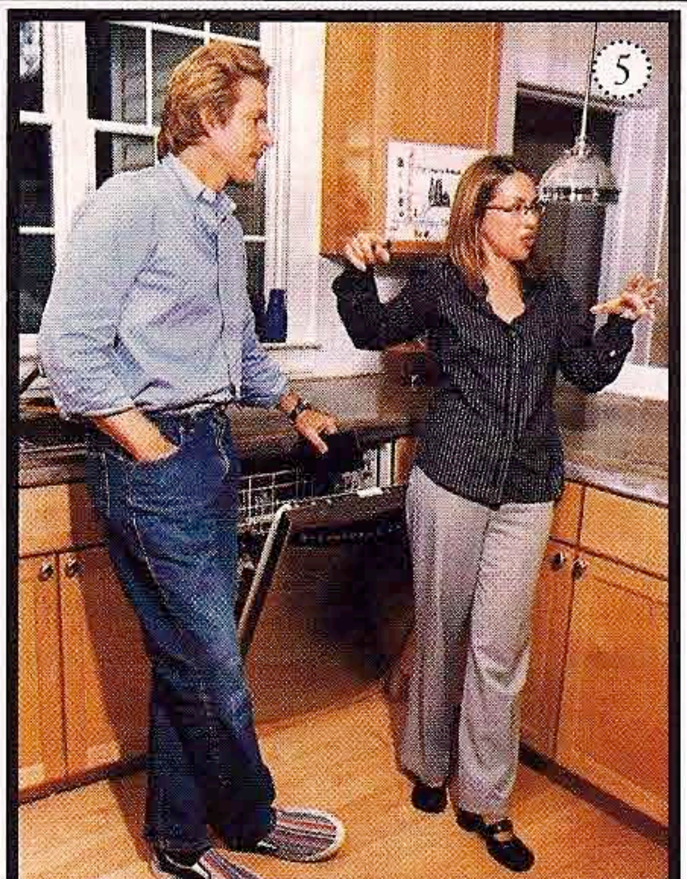
Natural cleansers like vinegar and baking soda do a great job without harming the planet.

Every time you bring your own mug (to a coffee shop, a meeting), you cut down on Styrofoam.

MATTHEW MODINE

Matthew and NRDC's Dale Bryk (*in glasses*) visit Brandi Drake's home to share energy-saving and toxin-reducing tips.





HOME, SWEET GREEN HOME: Laurie David in San Clemente, California, with the Perezes (*clockwise from far left*): Billy, Debbie, Mark, Mary, Delaney, and Teddy.

THERE'S NOTHING LIKE A VISIT from a movie star for inspiration to spruce up the house, which is why the smell of fresh paint is apparent as Matthew Modine arrives to meet the Drake family of Montclair, New Jersey. And this visit has special significance: Today Matthew is wearing his well-earned hat as an environmentalist, dropping in on the Drakes to offer simple, gratifying, inexpensive ideas for living greener.

It's easy to feel overwhelmed by the prospect of environmental disaster. As Nobel Peace Prize laureate Al Gore said in his Oscar-winning documentary, *An Inconvenient Truth,* "People go from denial to despair without pausing at the intermediate step of actually doing something." Cars, factories, and power plants trying to handle the modern demand for energy have created potentially catastrophic global warming, with the release of carbon dioxide literally heating and thickening the atmosphere of the planet it was meant to protect. So what can one person, or one family, do about the melting polar ice caps, anyway? The answer is a resounding "plenty." Operating on the premise that lots of people would embrace some important changes if armed with the know-how, *O* magazine found two families who agreed to open their doors and their drawers for an eco-makeover.

Our guides for this odyssey are both Hollywood activists and passionate promoters of earth-friendly policies. The genesis of Matthew's green interest was a summer job in the early 1970s, when the drive-in theater his father managed shut down and he earned a little money by collecting copper wire from the speakers for salvage, which got him thinking about what gets thrown away. A veteran of more than 40 films including *Birdy, Full Metal Jacket,* and *Married to the Mob,* he is currently in Showtime's *Weeds,* and his short film about reducing carbon fuel emissions was shown at the World Economic Forum. Two years ago he created Bicycle for a Day (bicycleforaday.org), a worldwide campaign to promote transportation alternatives.

Laurie David's eco-consciousness was raised as a new mother in the 1990s. Her husband at the time, Larry David, was on a soundstage seven days a week helping create *Seinfeld* (and later *Curb Your Enthusiasm*), and as she pushed a stroller around her neighborhood with a colicky baby, she became aware of how many SUVs were on the road. A little research revealed a loophole in the law that classified SUVs as trucks, allowing them about half the gas mileage and double the pollution of regular cars. Since then, she has written books about the climate crisis including *The Down-to-Earth Guide to Global Warming,* created the Stop Global Warming Virtual March (stopglobalwarming.org), and was a producer of *An Inconvenient Truth.*

For our home visits, Laurie and Matthew were joined by experts from the National Resources Defense Council (NRDC), a group of lawyers and citizens devoted to safeguarding the planet. Environmental issues are complex, and sometimes the most well-informed people debate the best course of action, but our makeover teams can start all of us thinking about what we might do to make a difference.

THE PEREZES

ON THE DAY THAT LAURIE DAVID MEETS the Perez family of San Clemente, California, she is distressed by two news items: The Chicago marathon was halted after just a few hours due to abnormal heat that precipitated one death and several hundred injuries. And the opening of the skating rink at Rockefeller Center in New York City was marred by record-high temperatures, with pooling water instead of a frozen surface.

In the past, such alarm bells would have gone unnoticed by the Perezes: Debbie and Mark, both 37 and former teachers (Mark now works for a nonprofit organization called the Grove Center that supports church-based art), and their children, Billy, 11; Mary, 10; Delaney, 8; and Teddy, 6. But Laurie is helping them see how they are connected to that overheated marathon and melting ice rink. "We're all contributing to this problem," she says, "every day when you turn on a light or drink from a plastic water bottle. There are things the government has to do, but individual citizens also need to be part of the solution."

Sitting at the kitchen table of the family's split-level house, Laurie looks up at the recessed fixtures in the ceiling with more than a dozen lightbulbs. "To me, they're really heat bulbs," she says. Compact fluorescent lightbulbs (CFLs) use only a quarter of the energy that incandescent ones do. Australia and Canada have already voted to ban the use of incandescent bulbs by 2009 and 2012, respectively. If every American family substituted five CFLs for incandescent, it would be equivalent to taking eight million cars off the road for a year. They cost a little more up front, but they last

"BEING GREEN IS NOT ABOUT BEING PERFECT; IT'S ABOUT BEING CONSCIOUS AND TRYING TO DO SOMETHING."

up to ten times longer.

Debbie has prepared a typical school lunch, packed in a paper sack. "This will be used for one day, and then it's going in the garbage," says Laurie, "but this"—pointing out her own daughter's metal lunch box—"will be used for five years. When you see paper, think of a tree." According to the NRDC, Americans throw away enough paper every year to build a 12-foot-high wall stretching from New York to California. Every two seconds, somewhere in the world, a forest area the size of a football field is destroyed—all for things like paper towels, napkins, printer paper—and the loss of those trees is disastrous for the environment. Trees absorb carbon dioxide and convert it into oxygen. During its lifetime, a single tree can absorb the amount of CO_2 released by the average car that's been driven 4,000 miles. "This is a petroleum product," says Laurie with obvious distaste, pointing to a one-shot water bottle. "It's made from oil. It's shipped on a truck spewing fumes. And two and a half million plastic bottles are thrown away every hour." Inside the "greener" lunch box are reusable containers for sandwiches, snacks, and drinks, made of metal or plastic. The family agrees to start questioning the products they buy: How far has this traveled to get here, and how many resources does it require? The oldest child, Billy, is the most aware and concerned about environmental issues. He shows Laurie a bag inside his closet where he keeps bottles for recycling, but she encourages him to expand his horizons. By the next day, he has already spoken to his principal about setting up collection bins at school.

AT LAURIE'S SUGGESTION, Debbie has timed her family's showers. Mark is the worst culprit—11 minutes—"and he doesn't even have to use conditioner," Mary protests. Low-flow showerheads would be a big improvement. "If they're well designed, the pressure should still feel good," says Laurie, "and for every two minutes you shave off your shower, you save ten gallons of water." Delaney agrees that she can turn off the faucet while brushing her teeth. But the whole family winces at the prospect of giving up their three-ply toilet tissue for the scratchier stuff made from postconsumer wastepaper (printed material that's been recycled). This is okay with Laurie. "Being green is not about being miserable; it's about being conscious," she says. "It's not about perfection; it's about everyone trying to do something." Still, despite the initial hesitance, Debbie reports a week later that everyone has ›

4 THINGS YOU CAN DO RIGHT NOW TO HELP YOUR PLANET

1 BAG IT

GET REUSABLE CLOTH BAGS FOR THE GROCERY STORE AND THE DRY CLEANER. MORE THAN 100 BILLION PLASTIC BAGS ARE THROWN AWAY EVERY YEAR.

2 STOP JUNK MAIL

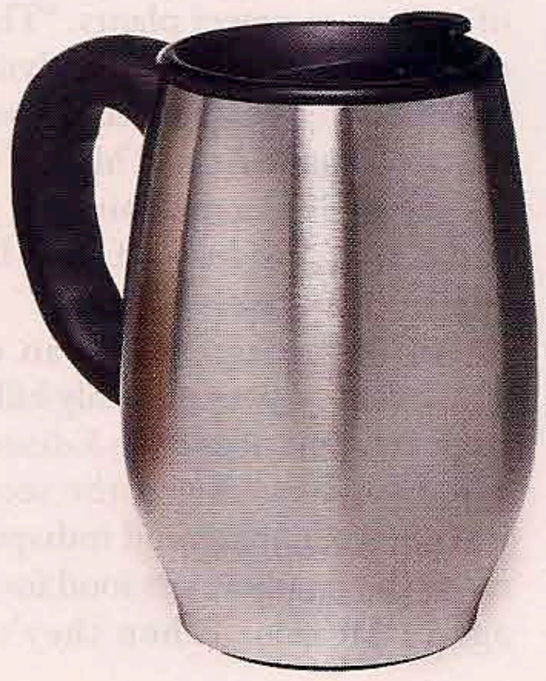
EVERY YEAR 100 MILLION TREES ARE CHOPPED DOWN FOR JUNK MAIL SENT TO AMERICAN HOMES. CONTACT THE DIRECT MARKETING ASSOCIATION AT DMACHOICE.ORG/MPS TO REMOVE YOUR NAME FROM MAILING LISTS OF THEIR MEMBERS.

3 SHUT DOWN

THE AVERAGE COMPUTER LEFT ON ALL DAY USES NEARLY 1,000 KILOWATT HOURS OF ELECTRICITY A YEAR, PRODUCING MORE THAN A TON OF CARBON EMISSIONS. SO TURN OFF YOUR COMPUTER ANYTIME YOU'RE NOT ON IT, AND ELIMINATE THE SCREEN SAVER FUNCTION, WHICH USES MORE ENERGY THAN THE SLEEP MODE.

4 A MUG OF YOUR OWN

EVERY YEAR AMERICANS THROW AWAY 25 BILLION POLYSTYRENE CUPS AND 25 BILLION INDIVIDUAL WATER BOTTLES, MOST OF WHICH END UP IN LANDFILLS. INSTEAD BUY A REUSABLE TO-GO MUG AND A BOTTLE THAT YOU CAN REFILL WITH FILTERED TAP WATER.



FROM TOP: JULES FRAZIER/GETTY IMAGES. J MUCKLE/STUDIO D.

GREAT GREEN SITES

Greenercars.org
Gives a green score for every car, minivan, pickup, and SUV on the market, based on official emissions and fuel-economy tests, plus good driving and maintenance tips.

40mpg.org
Calculates how much money you'd save and how much less pollution you'd generate if your vehicle got at least 40 miles per gallon, like the Toyota Prius and Honda Civic Hybrid.

Greenhotels.com
Directs travelers to B&Bs, inns, motels, hotels, and resorts with earth-friendly policies.

Greenearthcleaning.com
A nationwide source for finding the nearest environmentally sound dry cleaners.

Greenfeet.com
Lists sources for green products ranging from hemp coffee filters to nail polish remover made from vodka.

Greenhomeguide.com
For home buyers or refinishers, with products such as reclaimed hardwood flooring and paint without volatile organic compounds.

Saveourenvironment.org
A collaborative effort to raise awareness of environmental issues; includes a gardener's guide to global warming, with action plans (reducing water consumption, use of gas-powered tools) for your backyard and your community.

Green-e.org
Find suppliers of renewable energy for home or business across the country.

Dsireusa.org
State-by-state guide to tax credits available for using renewable energy.

Preventcigarettelitter.org
Keep America Beautiful sponsors cigarette litter prevention through public education and details how communities can take action. If you needed another reason not to smoke, the fibers in cigarettes look like cotton, but they're cellulose acetate, which is man-made and doesn't biodegrade.

Carsharing.net
For people who live in cities and don't need a car 24/7.

Csacenter.org
A database of community-supported agriculture, listing local farms that emphasize soil conservation.

actually adjusted to the new TP. It's like switching from whole milk to skim: After a while, the beloved original seems over-the-top.

With six people living in almost 3,000 square feet, there are dozens of appliances in the house—TVs, computers, hair dryers, toasters, coffeemakers, lamps, cell phones with chargers—and each is drawing electricity when plugged into a wall socket, even when it's not in use. This is called phantom power—a little like a vampire sucking out energy. It's estimated that the amount of electricity used nationally each year by idle equipment roughly equals the output of at least 12 power plants. "The idea is to connect the dots," says Evelyne Michaut, the NRDC green building consultant who has accompanied us. "Think of each device as plugged into a coal mine." A power strip makes it easy to turn off up to half a dozen appliances at once.

An old refrigerator can cost up to 50 percent of your monthly bill, according to power company Con Edison. The Perezes have two fridges, the second one in the garage, considered indispensable because the family stores food for an orphanage in Mexico. When they're ready to replace this ten-year-old model or any other big-ticket appliance, Evelyne and Laurie direct them to look for the Energy Star label, which indicates that the product meets government energy-efficiency standards. Meanwhile, nobody should be standing in front of any open fridge trying to decide what to eat. The Perezes' washing machine is relatively new, but choosing cold water and doing only full loads will definitely benefit both the environment and their budget: More than three-quarters of the energy used to launder clothes comes from heating the water, and the hot water cycle generates five times more greenhouse gases than cold. Laurie scrapes a big handful of lint from the dryer's filter—it builds up after every cycle, reducing the machine's efficiency. And living in Southern California, with a backyard, the Perezes have the perfect opportunity to hang a clothesline. "Air-dried towels are fantastic," Laurie raves. "Everyone in the family will be fighting for them."

EVERY TWO SECONDS, A FOREST THE SIZE OF A FOOTBALL FIELD IS DESTROYED—ALL FOR THINGS LIKE PAPER TOWELS.

TWO OF THE FAMILY'S BIGgest energy drains stand in the driveway: a 1998 truck that gets 13 to 15 miles per gallon and a 2002 van that gets just ten to 12 miles per gallon. Together the two gas guzzlers were driven almost 20,000 miles in the past year, generating more than 30,000 pounds of greenhouse gases. Evelyne approves the Perez plan to "run them into the ground" before replacing, "and by then there will be even more electric and hybrid options," she says, with federal tax credits available for some models. But she also points out that maintaining a vehicle properly makes it more fuel-efficient. The manufacturer's recommendation for tire inflation (in a unit of measure called PSI, or pounds per square inch) is often written inside the door frame or in the owner's manual. Tires can lose about a pound of pressure in a month, and for every three pounds below the recommended pressure, fuel economy goes down by about 1 percent. The NRDC estimates that if all Americans kept their tires properly inflated and bought replacements of the same quality as the originals, we would save more oil than is available in the Arctic National Wildlife Refuge. How you drive is important, too: Flooring the gas pedal and braking hard dramatically decrease gas mileage and lead to more pollution. According to the American Council for an Energy-Efficient Economy, one second of high-powered driving can produce nearly the same volume of carbon monoxide emissions as a half hour of normal driving. Speeding along at 75 miles per hour instead of 65 lowers your fuel economy by about 10 percent. And carrying around an extra 100 pounds of cargo reduces fuel economy by about 1 percent.

Perhaps the most important message for the Perez family—and possibly yours—is about looking beyond one's own backyard. The leaders of more than 600 American cities have signed the U.S. Mayors Climate Protection Agreement, launched in 2005 with a goal to cut greenhouse gas emissions. Portland, Oregon, has built hundreds of miles of bike paths. Austin gave tax breaks for green homes and businesses. Salt Lake City converted more than 200 traffic signals to energy-efficient bulbs. If your hometown isn't on the list at coolcities.us, Laurie suggests writing to your mayor. San Clemente is

LAUREN NICOLE/GETTY IMAGES

not part of this admirable action plan—in fact, the Perezes must go to another town just to recycle—so a letter is in the mail.

THE DRAKES

WHEN MATTHEW MODINE SHOWS UP at the charming 19th-century, New Jersey home the Drakes have been renovating, the fresh paint is their first eco-lesson. "There are so many chemicals flying out of that paint," the actor says. According to the Environmental Protection Agency, architectural coatings such as paints and varnishes are one of the largest sources of fumes from volatile organic compounds, substances that evaporate at room temperature and react in sunlight to form photochemical smog. (Automobiles are the biggest culprits.) "No VOC" paint is better for the environment and humans.

All sorts of greener options are available to renovators, home builders, and do-it-yourselfers like Brandi Drake, 39, the associate pastor of Grace Presbyterian Church, and her husband, Evan, 41, a neuropsychologist at Columbia University, the parents of two young boys. Matthew is partial to an insulation material called Bonded Logic that's made from recycled denim scraps. It contains no formaldehyde, as most fiberglass does, and requires very little energy to manufacture. Landscaping can help temperature control as well: If the Drakes planted trees strategically on their property, they could have summer foliage to block the infrared radiation that otherwise makes the house hotter, while bare branches in winter would let this heat source through. Looking around inside, the NRDC's Dale Bryk, who works on energy policy issues, suggests a programmable thermostat, set for one or two degrees higher than what the family is used to in warm weather, and one or two degrees lower in the cold. "Check the seals on your doors and windows," she says, "so whatever temperature you're trying to create is not flying out."

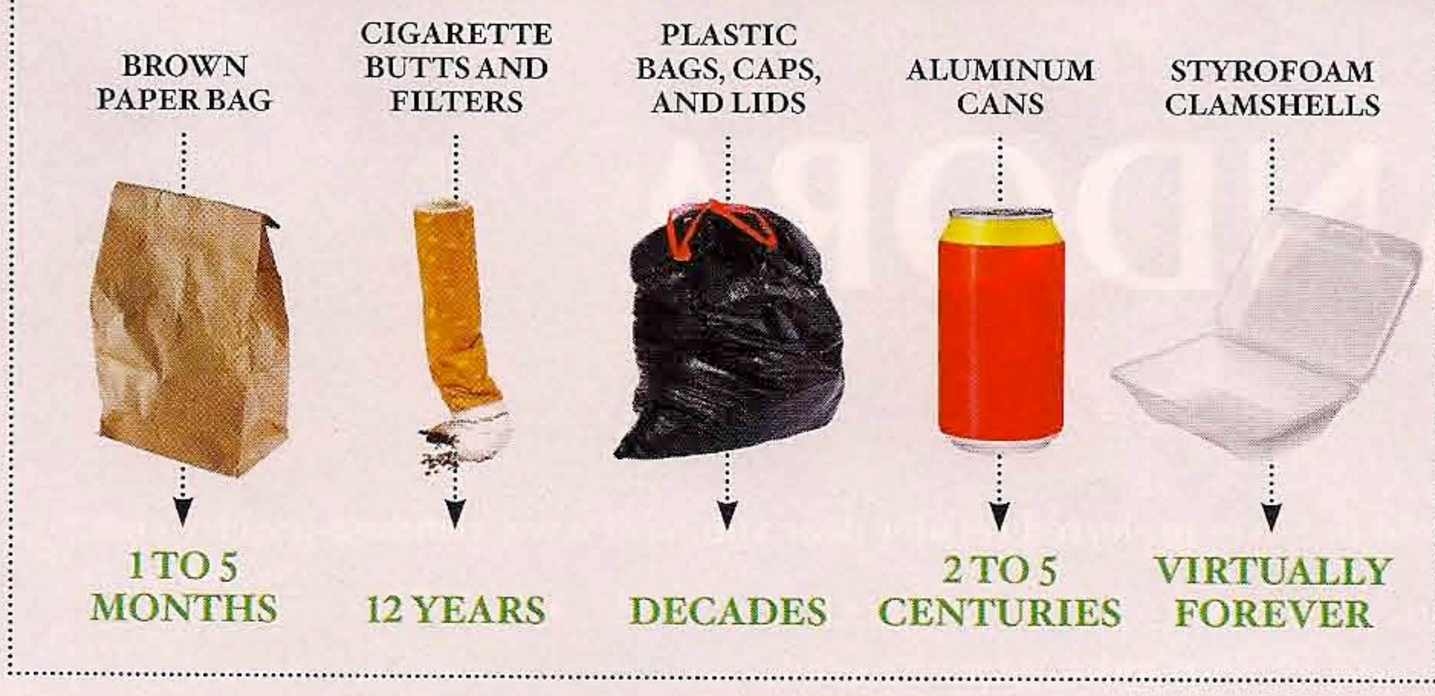
ECO-ACTOR Matthew Modine with the Drake family in Montclair, New Jersey. Brandi Drake holds son Miles. Their other boy, Ethan, leans on his dad, Evan.

IN 1994 MATTHEW BASICALLY HALVED the paper use in Hollywood by getting the William Morris Agency to print movie scripts on both sides of each sheet (double-sided scripts are now an industry standard), and he talks to Evan about fostering a similar policy at the university. Even switching to recycled paper (rather than the kind made from virgin lumber) uses up to 90 percent less water and half the energy, producing about one-third fewer greenhouse gases. Dale recommends that the family pay bills electronically. And the Drakes can visit the Direct Marketing Association's Web site to "opt out" of most junk mail.

Three other backyards abut the Drake's property, and Matthew is enthusiastic about the possibility of cooperative composting. When organic matter ends up in landfills and decomposes without air, it produces methane, a greenhouse gas 20 times more potent than carbon dioxide. Every ton of organic matter that's diverted from the garbage prevents the creation of more than 1,000 pounds of greenhouse gases. "Let's work this piece of land," says Matthew, who encourages composting even for black thumbs, and a kitchen compost for urban dwellers. "You don't have to be a brilliant gardener. The healthiest thing you can do is put your hands in the soil," he says. "And it's great for kids."

Even children as young as the Drakes' sons, Ethan, 5, and Miles, 3, can start practicing some environmental awareness. "If you get an ice cream cone instead of a cup, then you're eating your dishware instead of using plastic," says Matthew. "It's all about consuming less, using fewer of the resources needed to make products and packaging. A smaller ribbon of toothpaste will do. You can dilute shampoo and dish detergent by half. A short wash usually takes care of dirty clothes." As Matthew scans the laundry room supplies, he suggests avoiding chlorine bleach, [CONTINUED ON PAGE 226]

HOW LONG DOES IT TAKE TO BIODEGRADE?



FROM TOP: DRAKE FAMILY AND MODINE. FASHION STYLIST: AMIT GAJWANI. HAIR AND MAKEUP: STACY BENEKE. J MUCKLE/STUDIO D

CONTINUED FROM PAGE 211

an environmental toxin, and brings up the idea of using natural, homemade cleaning solutions. "There are so many things you can clean with vinegar and baking soda," he adds. "And a little vegetable oil and lemon juice makes a great wood polish."

When Brandi hears about Nike's Reuse-a-Shoe program, which grinds the rubber, foam, and fabric from old athletic shoes into materials for playground surfaces, she can't wait to tell the boys' preschool about it. As Matthew and Dale check out the boys' closets, the conversation turns to greener choices in clothing. Growing cotton requires tremendous amounts of water plus chemical insecticides and fungicides. Matthew favors industrial hemp, one of the oldest and most efficient sources of textile fiber, no longer grown commercially in this country because of its erroneous association

with marijuana (although the two are from the same plant, they are cultivated differently). Industrial hemp has no illicit uses. "I'd like to change the face of hemp in the world," says Matthew. "Almost every canvas in the Louvre is made from hemp. It was an important crop in the United States until after World War II, made into ropes and cloth. But then it got this connotation of 'reefer madness.'"

By the time Mexican takeout arrives for lunch, everyone's "wasteful" radar has been turned up. "It's ironic to get so many paper napkins and plastic utensils," Brandi comments, realizing that it's easy to tell any restaurant delivering food not to send them. She also likes the idea of a "bring your own mug" policy for coffee hour at the church, saving endless numbers of Styrofoam cups. "Our town won't recycle cardboard that has touched food," says Evan. That means pizza boxes get thrown away and end up in a landfill. "Some political person is making the decision that recycling costs more than landfill replacement," says Matthew, urging the Drakes to speak with municipal authorities about changing the rules. And he asks the family to consider a meatless meal every week, limiting the amount of feed and water necessary for the animals as well as reducing the manure polluting rivers and streams. (Here's a statistic any adolescent boy would love: The Worldwatch Institute estimates that flatulent livestock emit 16 percent of the world's annual production of methane.)

Clean water is an increasingly endangered commodity in our world. And toilets are water hogs: About 40 percent of the water used in the average home gets flushed away. That amounts to more than four billion gallons of water in the United States each day. Federal law now mandates that all new residential toilets be low-flush models, which consume 1.6 gallons of water or less per use, compared with as much as five gallons for the conventional kind. In one of the Drakes' bathrooms, Matthew and Evan peer into the tank to see if there's room for a brick—an old-fashioned but still viable idea for reducing the amount of water used. There's not, but a plastic jug filled with water or pebbles will serve the same function.

Matthew's enthusiasm for transportation alternatives is infectious, and the American way of getting around is increasingly hard to defend. If people who live less than five miles from work or school rode their bikes instead of driving, they would cut their CO_2 emissions by a ton each year. If just one member of each U.S. household did this, they would eliminate more than 115 million tons of global warming pollution annually. Brandi's church and the boys' school are both within a mile of the Drake home, so Matthew plants the biking idea for spring weather. Evan's commute is 25 miles, but he could consider carpooling with neighbors. If each commuter car carried one more passenger once a week, gas consumption would go down by almost eight million gallons.

The point made in so many ways is that everyone can do something—at home, at school, at work. What's important is creating a new paradigm and a new consciousness. If you often take home a doggie bag from a restaurant, could you bring a container so you avoid using Styrofoam? Can you think twice about disposable anything, from razors to cameras? (Or at least buy rolls of film with 36 shots rather than 12 to reduce packaging?) Might you consider a return to handkerchiefs rather than tissues? Or wrapping gifts with pages from magazines? And Matthew gives an eco seal of approval to a much-maligned practice: "I have absolutely no problem with regifting," he says with a grin. If ever there was a global issue that requires all of our brains and hearts, it is this one. We are in it together, for better or for worse, for the future. O