

1 family 1 handyman

BETTER BATHROOMS

HOW TO
TILE A
SHOWER

ULTIMATE
GUIDE TO
TOILETS

MINI TO MAXI
MAKEOVERS

BUILD A
DREAM
VANITY



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SETTING THE SCENE

//////////
**EVERY PHOTO WE TAKE IS AN ARTFUL PRODUCTION.
HERE'S A LOOK BEHIND THE CURTAIN.**

Within our Milwaukee offices, we have a photo studio. Well, make that several photo studios. But one of them is particularly special. We call it the “dance floor” because it sits amid our desks—a wide-open space with lights, and sometimes music—just begging for someone to bust a move.

While that’s yet to happen (at least on my watch), this studio is where big things happen. Most recently, it’s where the cover for this issue was shot. What started as a pie-in-the-sky idea (“Let’s build a bathroom!”) soon became a reality as our dedicated team of project editors, builders, photographers

and stylists came together with a (literal) shower of ideas.

Tapping in to their knowledge of the latest design trends, Sam Rosenmayer and Carmen De La Paz dreamed up the blueprints for a clean-lined subway-tiled shower and open-shelf vanity, respectfully.

With a goal of bringing you form as well as function, this project was also touched by the imagination of our set stylist, Melissa Franco. The photo below is her living mood board—a melange of textures, shapes and colors that she knew would transform this bathroom from utilitarian to ultimately liveable.



Says Melissa, “I like to use a color palette as a jumping-off point. We knew we wanted the shower to be a focal point. I fell in love with a muted sage green glossy tile and based the remaining color palette and design elements around it. Together, these hues are known to evoke a sense of peace, relaxation and freshness.”

Our chief builder, Frank Tritschler, sprang into action, bringing these collective ideas to life and getting his hands dirty, before the results were photographed by Mark Derse over the course of several days. Never have we been more excited about telling stories about showers, toilets and sinks. If you’ve been reading this magazine for a while, you know we do a lot of that! It all goes back to the simple belief that the bathroom is one of the most important rooms of the house and it deserves just as much love as your living room or bedroom.

This was an endeavor two months in the making, and we wouldn’t change it for the world. The only thing that would have made it better is if someone would have done a jig on the dance floor at the end.

We hope you enjoy reading about it as much as we enjoyed developing it. 

KELLY AIGLON
DEPUTY EDITOR



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HOW TO TILE

Get the step-by-step and discover tile trends for any bathroom.



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Scott McGillivray hosts a new show on At Home with Family Handyman.

5 TIPS FOR TURNING UNUSED SPACE INTO INCOME

Ever imagine that your love of DIY could turn into a bona fide business venture? *Income Property*, a new show streaming on At Home with Family Handyman, will inspire you. Host Scott McGillivray is a triple-threat expert in real estate, renovation and finance. He's rescued homeowners from the harsh real estate market by showing them how to create rental suites in their home as a way to generate additional revenue to defray mortgage costs.

In each episode, McGillivray presents his client with two design options. After they pick the one that meets their needs, the host and his team of contractors renovate the space, with the meticulous McGillivray overseeing a sleek and cost-effective makeover.

Want a few pieces of advice to get started? McGillivray revealed his top five tips to leverage your real estate as a source of income.

1. Check your local bylaws. What are the legalities of rental properties? Can you create multiple units in a home?
2. Do the math! Look at comparable rentals in the area and make sure that your investment will generate a desired/profitable return.
3. Look for natural divisibility in a home. Are there separate entrances for each level? Is there access to a basement? This makes it easier to begin the conversion to multiple units.
4. Get multiple estimates to have the work done legally to create a rental space you can be proud of.
5. Plan a design that adds to the overall value of the home.

Income Property is streaming now on At Home with Family Handyman, available on Samsung TV Plus, The Roku Channel and more. Says McGillivray: "Not only does it inspire design and renovation ideas, it gives people a road map to real estate investing and the true potential of their home."

NEW! A BIG BOOK OF BEST-OFs

We've gathered our greatest hits of the past year and put them in a book for you! *The Best of Family Handyman 2024* includes 600-plus



home improvement ideas tailored for every skill level and every space of your home, indoors and outdoors. For everything from quick clever hacks to major renovation pointers, you can save time and money by keeping this book at your side. Get it now for \$10—shipping is free. Order at familyhandyman.com/D2404.



SHOW... AND WE'LL TELL!

Family Handyman is more than a resource—it's an entire community of people like you: renters, homeowners, DIYers and dreamers. We want to hear from you! If you've recently finished a project at home—indoor or outdoor, large or small—send it our way. It may appear in an upcoming issue of the magazine. Visit familyhandyman.com/submissions to send us photos, videos and details.

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1920s Style for a 1920s Price

It was a warm summer afternoon and my wife and I were mingling with the best of them. The occasion was a 1920s-themed party, and everyone was dressed to the nines. Parked on the manse's circular driveway was a beautiful classic convertible. It was here that I got the idea for our new 1920s Retrograde Watch.

Never ones to miss an opportunity, we carefully steadied our glasses of bubbly and climbed into the car's long front seat. Among the many opulent features on display was a series of dashboard dials that accentuated the car's lavish aura. One of those dials inspired our 1920s Retrograde Watch, a genuinely unique timepiece that marries timeless style with modern technology.

With its remarkable retrograde hour and minute indicators, sunburst guilloche face and precision movement, this design is truly one of a kind. What does retrograde mean? Instead of displaying the hands rotating on an axis like most watches, the hands sweep in a semicircle, then return to their starting point and begin all over again.

Retrograde watches by the big brands can set you back thousands; one recent offering from a big French fashion house is selling for more than \$150,000! But because we've designed the 1920s Retrograde Watch in-house, we can offer it to you for just \$99!

This watch is so wildly popular with our customers that we're actually concerned about running out; we only have 937 729 left for this ad!

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HANDS ON

fh TOOLS, GADGETS + GEAR WE RECOMMEND

GIVE YOUR MOTORCYCLE A LIFT

Some years ago, a friend of mine was clearing out his garage in preparation for a move and offered me a Pittsburgh Automotive 1,500 lb. Steel ATV/Motorcycle Lift. I have since used the jack dozens of times to raise my motorcycle for maintenance and repair work. The foot-activated lift is lightweight, has a 1,500-lb. weight capacity, and is so stable and effortless to roll that I use it to winterize my motorcycle and keep it jacked for months at a time. If you're a DIYer who enjoys working on motorcycles, dirt bikes, all-terrain vehicles or motorized scooters, this inexpensive lift will be an asset to your garage or workshop. The Pittsburgh Automotive 1,500 lb. Steel ATV/Motorcycle Lift is available online from Harbor Freight.

—ETHAN O'DONNELL, SENIOR EDITOR 

COURTESY OF HARBOR FREIGHT



TRY A CONVENIENT CORDLESS VACUUM

It doesn't matter how big or small a workshop job is, there's always some sort of mess at the end of the day. Shavings, dust, dirt—you name it. Some of the "smaller" vacuums I use often in my shop are still quite clunky, and they can be a real hassle to take from job site to job site. That's why I love the Milwaukee Tool M18 2-Gallon Wet/Dry Vacuum. It's truly portable, lightweight and easy to handle, and it has more suction power than I ever imagined. The 6-ft. hose and included nozzle attachments mean I can both reach and tackle just about any mess. And it is cordless and conveniently uses the same batteries as my drills and multitool, offering 30-plus minutes of runtime on a single charge. It is hands-down my favorite recent addition to my arsenal of shop tools.

—CARMEN DE LA PAZ, SENIOR PROJECT EDITOR



PROTECT SMALL ENGINES

There are a handful of products that belong in every garage. And if you have a lot of gas-powered lawn and garden machinery, one product jumps to the top: Sta-bil fuel stabilizer. Sta-bil is a gasoline additive specifically designed to keep gas from breaking down and gumming up fuel injectors and carburetors. A variety of formulations are available, including those specifically designed for long-term storage, diesel fuel and marine applications.

The first thing I do when I return from the gas station with a gas can full of fuel for my motorcycle, lawn mower, snowblower, chain saw, weed whipper, generator or power washer is put in the recommended amount of Sta-bil. This ensures that the gas remains fresh for months to come. Sta-bil fuel stabilizers are available at most auto parts stores and home centers.

—ETHAN O'DONNELL, SENIOR EDITOR



STEP UP YOUR STEP STOOL

To reach the top shelf of our kitchen cabinets, my wife would always step up on one of our slightly unstable antique dining chairs. After she became pregnant with our first child, I decided that enough was enough and went on a quest to find a sturdy and lightweight alternative. I found one in the Gorilla Ladders 2-Step Aluminum Step Stool.

Now, two years later, we have a high-energy toddler and a step stool that we both love. The stool's slim, foldable design, oversized standing platform and even the tiny tool tray molded right into the handle come in handy for nearly every task. Plus, at just 6 lbs., it's easy to tote around for jobs all over the house. I can't imagine hanging a light fixture, mounting a TV or painting a nursery without it. The Gorilla Ladders 2-Step Aluminum Step Stool is available at the Home Depot.

—ETHAN O'DONNELL, SENIOR EDITOR





BACK-BREAKING WORK REQUIRES SOME HELP

Everyone feels the hurt as you age, but CBD can help you deal with it

By: Beth Giles

Life really does fly by. Before I knew it, my 60s had arrived, and with them came some new gifts from dear ol' Mother Nature—frequent knee pain, stress, low energy and sleeplessness. Now, I'm a realist about these things, I knew I wasn't going to be young and springy forever. But still, with "golden years" nearly on my doorstep, I couldn't help but feel a little cheated. That is until I found my own secret weapon. Another gift from Mother Nature.

It began a few months back when I was complaining about my aches and pains to my marathon-running granddaughter, Jen. She casually mentioned how she uses CBD rub to help with her joint pain. She said that CBD gave her more focus and clarity throughout the day and that her lingering muscle and joint discomfort no longer bothered her. She even felt comfortable signing up for back-to-back marathons two weekends in a row this year. That made even this self-proclaimed skeptic take notice.

But I still had some concerns. According to one study in the *Journal of the American Medical Association*, 70% of CBD products didn't contain the amount of CBD stated on their labels. And, as a consumer, that's terrifying!

If I was going to try CBD, I needed to trust the source through and through. My two-fold research process naturally led me to Zebra CBD.

First, I started calling my family and

friends. Call me old fashioned but I wanted to know if there were people whom I trusted (more than anonymous testimonials) who've had success using CBD besides my granddaughter.

Secondly, I wanted cold hard facts. Diving deep into the world of CBD research and clinical studies, I came across Emily Gray M.D., a physician at the University of California at San Diego (UCSD) Medical School and medical advisor to Zebra CBD who is researching the effects of CBD. Dr. Gray wrote "early results with CBD have been promising and we have a lot of research underway now. I've had several patients using CBD with good success. It's important that you know your source of CBD and how to use it properly."

After hearing it from the doctor's mouth, I returned to my research, asking more people and was amazed by the number of close friends and family who were already on the CBD train. Apparently, I was the only one without a clue! And funny enough, a couple of friends who commented were using the same brand as my granddaughter—Zebra CBD. There was no consensus as to why they were using CBD, but the top reasons given were for muscle & joint discomfort, mood support, sleep support, stress and headaches, as well as supporting overall health & wellness.

Eventually, even the most skeptical of the bunch can be won over. With a trusted CBD source in mind, I decided to give it a go.

When I viewed Zebra CBD's selection

online, I was impressed by its array of products, including CBD oils called tinctures, topicals, chewable tablets, mints and gummies. After reading on their website that all their products are made with organically-grown hemp, I ordered... and it arrived within 2 days!

The first product I tried was the Rub. Now this stuff was strong. Immediately after rubbing it on my knee, the soothing effects kicked in. It had that familiar menthol cooling effect, which I personally find very relieving. And the best part is, after two weeks of using it, my knee pain no longer affected my daily mobility.

The Zebra Sleep Gummies, on the other hand, had a different but equally positive effect on my body. To take it, the instructions suggest chewing thoroughly. This was simple enough, and the taste was, well, lemony. After about 15 minutes, a sense of calm came over my body. It's hard to describe exactly; it's definitely not a "high" feeling. It's more like an overall sense of relaxation—and then I fell fast asleep. Needless to say, I slept great and woke up refreshed. I haven't slept like that in a long time.

While it hasn't been a catch-all fix to every one of my health issues, it has eased the level and frequency of my aches. And it sure doesn't seem like a coincidence how rejuvenated I feel.

All-in-all, CBD is one of those things that you have to try for yourself. Although I was skeptical at first, I can safely say that I'm now a Zebra CBD fan and that I highly recommend their products.

Also, I managed to speak with a Zebra CBD spokesperson willing to provide an exclusive. If you order this month, you'll receive \$10 off your first order by using promo code "**FH10**" at checkout. Plus, the company offers a 100% No-Hassle, Money-Back Guarantee. You can try it yourself and order Zebra CBD at ZebraCBD.com/FH or at 1-888-762-2699.



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On any outdoor adventure, Mother Nature's job is to present you with challenges. Some days she's more demanding than others. And on those days, you'd better come prepared. **The Stauer Survival Box is a near-guarantee you'll be up to the challenge.** The stainless steel multitool offers wire cutters, knife, bottle opener, file, a set of screwdrivers, a pair of pliers and much more. The powerful flashlight has three different settings, and the tactical loop watch is a reliable, water-resistant timepiece that clips to your hip and never leaves your side. All told, opening the Survival Box gives you instant access to nine different tools for **JUST \$19.50**.

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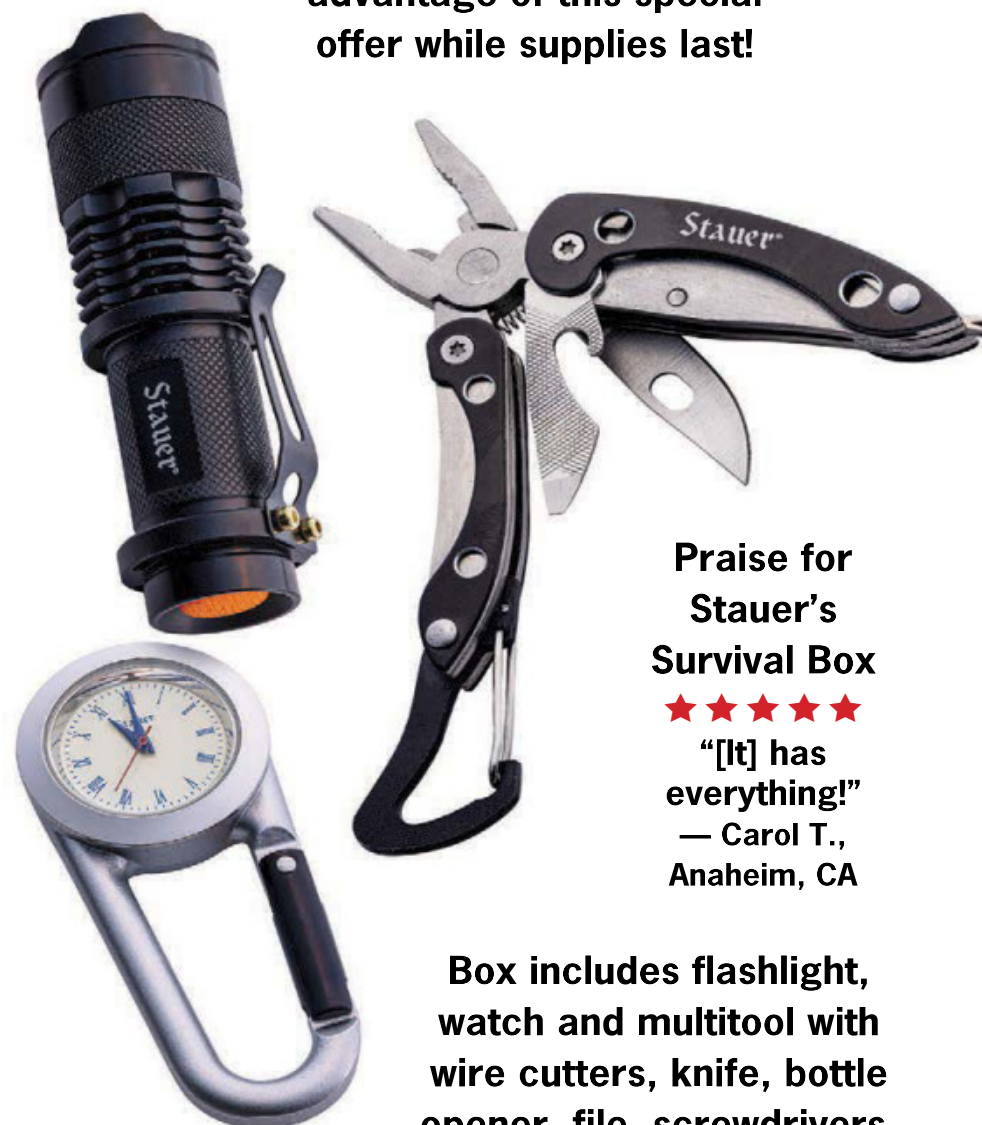
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Praise for Stauer's Survival Box



"[It] has everything!"

— Carol T.,
Anaheim, CA

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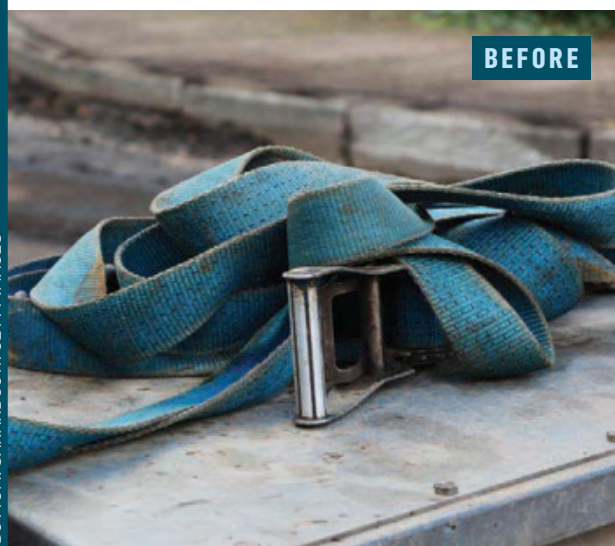
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AFTER



BEFORE

HOW TO ORGANIZE RATCHET STRAPS

I frequently use ratchet straps in my work as a handyman. The problem is, they often remind me of an unwieldy pile of noodles. My solution is to cut the tops off empty water bottles, neatly fold the straps and insert each into a bottle. Then I grab an empty pail to store them in—ready to deploy without the lost time sorting everything out.

LYLE MARKEY



EASILY FIX A DOOR THAT JUST WON'T STAY OPEN

A door that refuses to stay open can be a major annoyance. The solution? Remove the middle hinge pin by just tapping it out with a hammer and screwdriver. Over a flat and strong surface, strike the pin in the middle to create a slight bend. Tap the bent pin back into the hinge with the hammer.

DAN STOUT



CLEAN OUTDOOR CUSHIONS WITH A DRILL ATTACHMENT

Quickly and effectively clean your outdoor cushions with this hack. Mix mild dish soap into a bucket of warm water and attach the brush attachment to the drill. Lather the brush with soapy water and begin applying pressure to the cushion while starting the drill. Once the entire cushion has been scrubbed, rinse off the cushion with a garden hose and hang out to dry.

TANJA SMITH



HOW TO QUICKLY CLEAN SCREENS AND WINDOWS WITH AN AIR COMPRESSOR

Who wants to scrub off cobwebs, dust and debris with a towel? No one. It's much easier to use an air compressor to literally blow all the dirt out the window. Turn the psi on the compressor down to 60 so you don't damage the screen. If you do not own an air compressor, you can rent one for the day!

CAROL LONGFIELD

USE A BACKPACK WHEN HANGING A PENDANT LIGHT

Are you planning to install a new pendant light from the ceiling? Here is a way to make the process easier without exhausting your arms. First, put your backpack on backward and place the pendant light into the backpack. With your free hands, attach wires from the pendant to the junction box wires. Then take pendant light out of the backpack to finish installing it in the ceiling.

ALEX BLITHE





USE A WASHER TO TRACE OUT A LID

If you need a slightly larger cutout of a particular shape, this is a great hack. For example, if you are creating a lid, this will work perfectly.

Using a washer as a spacer while tracing an object increases the size while keeping its shape. To increase or decrease the space from the object you're tracing, simply change the diameter of the washer.

SALLY MOHOP



UNCLOG PRESSURE NOZZLES

Do you have a clogged pressure washer nozzle? Get a bowl or cup, fill it with white vinegar and allow the nozzle to soak overnight. The next day it will be unclogged and ready to go.

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HOW TO TILE A SHOWER

ROLL UP YOUR SLEEVES—WE’LL SHOW YOU HOW TO TACKLE THE JOB HEADFIRST

BY SAM ROSENMYER

There’s no getting around it: Tiling a shower is a big and messy project. But an updated surround can transform the look and feel of your bathroom.

I chose a colored subway tile for the shower walls, sliced pebble tile for the shower base and dark gray grout, but a wide range of colors, patterns and tiles are available in stores or online to complement the design of any bathroom (to get inspired, see “Step Off the Subway” on p. 20). If this is your first time shopping for shower tiles, go with porcelain or ceramic because they are durable and more stain resistant than other tile types.

Before you get started, change into clothes you have no problem possibly ruining—again, this is a messy job. And while it’s not the most exciting part of the process, take the time to plan the layout of your shower tiles as much as possible. The

MEET THE BUILDER



SAM ROSENMYER IS A HANDS-ON DIY WOODWORKER WITH EXPERIENCE IN THE UTILITY CONSTRUCTION INDUSTRY.





preplanning streamlines installation, preventing you from having to stop in the middle of applying mortar every time to cut a piece of tile. I also suggest putting down a canvas drop cloth before you begin tiling. No matter how careful I was, blobs of thin-set mortar occasionally fell from the trowel as I tiled the shower walls. Luckily, they landed on the cloth instead of the tiled pan, saving me a lot of extra cleaning.

If you're tiling an existing shower, you'll have to demo the shower down to the studs (I didn't need to do this for my project, since there was no existing shower). If you're not comfortable with that step, you might want to let a professional tiler handle this job. A pro will also have the capability and experience to ensure the tiling is done correctly, which is crucial in a moisture-prone area such as a shower. That said, this job can be completed by a DIYer who is willing to put in time and effort and follow the process we outline here.

MATERIALS LIST

ITEM

- 1/2" cement board
- 1 5/8" cement board screws
- 1 1/4" screws
- Shower wall tiles
- Shower pan tiles
- Mapei Ultracolor Plus grout
- Mapei Keraflex SG thin-set mortar
- Flexible adhesive caulk
- Cement board mesh tape
- Waterproofing insulation membrane
- Tile/grout sealer
- 2x4s

WHAT IT TAKES

TIME	COST
2-3 days	\$6,500-\$8,000

SKILL LEVEL
Intermediate/expert

TOOLS REQUIRED
3/16 x 5/32-in. V-notch trowel, paintbrush, 1/8-in. tile spacers, cordless drill, buckets, paint mixer drill attachment, grout float, grout haze remover, wet saw, clamps, diamond hole saw, backerboard scoring knife, utility knife, level, mud pan, sponges, mud mixer attachment, terry cloths/rags, canvas drop cloth



1 TAKE MEASUREMENTS FOR CEMENT BOARD

Measure each shower wall to obtain the dimensions needed for installing the cement board. Note the location of the shower valve, shower head and any accessories you are installing.

2 CUT CEMENT BOARD

With a backerboard scoring knife, score the cement board multiple times (use a straight edge and secure with clamps to keep a straight cut). Run over the scored line with a utility knife, then gently bend the board to break it off.

3 INSTALL CEMENT BOARD

Screw each panel of the cement board to the studs with 1 5/8-in. cement board screws. I used a level to mark a straight line on the cement board to see where the studs were as I continued to put up the panels.

4 TAPE AND SEAL GAPS

Apply flexible adhesive caulk to the gaps between the cement panels to provide a seal. In the cement board seams and corners I added cement board mesh tape.



Watering chores, water bills! Sweating behind a roaring mower! Spraying poison chemicals and digging weeds...



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7 Ways Our Amazoy™ Zoysia Lawn Saves You Time, Work and Money!

1 CUTS WATER BILLS AND MOWING BY AS MUCH AS 2/3

Would you believe a lawn could look perfect when watered just once? In Iowa, the state's biggest Men's Garden club picked a Zoysia lawn as "top lawn – nearly perfect." Yet, this lawn had been watered only once all summer!

2 NO NEED TO DIG UP OLD GRASS

Plant Amazoy in an old lawn or bare ground. Set plugs into holes in the soil checkerboard style. Plugs spread to create a lush, thick lawn, driving out weeds. Easy instructions included with every order.

3 ENVIRONMENTALLY FRIENDLY

No weeding means no costly chemicals. Amazoy Zoysia lawns naturally resist insects, so you'll save money, while helping to protect the environment. Never expose your family and pets to weed killers and pesticide poison.

4 FOR SLOPES, PLAY AREAS, BARE SPOTS AND PARTIAL SHADE

Can't beat Amazoy as the low-cost answer for hard-to-cover spots, play-worn areas, partial shade and erosion on slopes.

5 IT STAYS GREEN IN SPITE OF HEAT AND DROUGHT

"The hotter it gets, the better it grows!" Amazoy Zoysia thrives in blistering heat, yet it won't winter-kill to 30° below zero. It goes off its green color after hard frosts, and begins regaining its green color as temperatures in the spring are consistently warm.



Your Assurance of Lawn SUCCESS Amazoy Zoysia Grass is GUARANTEED

Guaranteed to grow new green shoots within 45-60 days or we'll replace it **FREE** – for up to 1 year – just call us. Valid on one order at a time, typically the most recent. We **ONLY** ship you mature, hardy field grown genuine Amazoy Zoysia grass harvested direct from our farms. Easy planting and watering instructions are included with each order.

6 CHOKES OUT CRABGRASS AND WEEDS ALL SUMMER

Your established Zoysia lawn grows so thick, it simply stops crabgrass and most summer weeds from germinating!

7 NOW 3 WAYS TO START YOUR AMAZOY ZOYSIA LAWN!

1) Freestyle Plugs come in uncut sheets containing a maximum of 150-1" plugs that can be planted up to 1 ft. apart. Freestyle plugs allow you to make each plug bigger and plant further apart – less cutting and planting – you decide.

2) Precut Super Plugs come precut into individual 3"x3" plugs ready-to-plant (minimum 1 per 4 sq. ft.). They arrive in easy to handle trays of 15 Super Plugs. Save time and get your new lawn faster!

3) Amazoy Approved Seed – As The Zoysia Specialists for 70 years, we now have a Zoysia seed that meets our standards and homeowners expectations.

**ORDER TODAY – GET UP TO
1,500 FREESTYLE
PLUGS – FREE!**

Meyer Zoysia Grass was perfected by the U.S. Gov't, released in cooperation with the U.S. Golf Association as a superior grass.

© 2024 Zoysia Farm Nurseries, 3617 Old Taneytown Rd, Taneytown, MD 21787

Freestyle Plugs You decide how big to cut the plugs. Each grass sheet can produce up to 150-1 in. plugs. Plant minimum 1 plug per sq. ft.

Max Plugs	Free Plugs	Grass Sheets	Your PRICE	+Shipping	SAVINGS
450	—	3	\$ 47.50	\$26.50	—
750	+150	6	\$ 72.50	\$32.50	29%
1100	+400	10	\$110.00	\$47.50	36%
2000	+1000	20	\$185.00	\$75.00	47%
3000	+1500	30	\$245.00	\$90.00	55%

Super Plugs Precut plugs 3 inches by 3 inches READY TO PLANT Packed in trays of 15 Super Plugs. Plant minimum 1 plug per 4 sq. ft.

Super Plugs	Free Plugs	Tray	Your PRICE	+Shipping	SAVINGS
15	—	1	\$ 27.50	\$18.00	—
25	+5	2	\$ 42.50	\$25.00	26%
60	+15	5	\$ 97.50	\$37.50	41%
120	+30	10	\$150.00	\$60.00	54%
240	+60	20	\$270.00	\$97.50	60%

EVERYTHING YOU NEED TO START AND MAINTAIN A CAREFREE BEAUTIFUL ZOYSIA LAWN

Scan QR code to learn more



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Amazoy is the Trademark Registered U.S. Patent Office for our Meyer Zoysia grass.

Savings shown over aggregate base price and shipping

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5 APPLY WATERPROOFING MEMBRANE

Put down a drop cloth before starting. Apply a waterproofing membrane to the cement boards with a paintbrush or roller.

6 TILE SHOWER PAN

Mix the thin-set mortar and water in a bucket using a mud mixer attachment. Spread a thin layer of mortar in the corner of the shower pan using the flat side of the trowel, then run over the mortar using the notches on the trowel. Place the tile on the mortar and use your hands or a grout float to push the tile into the mortar with even pressure. Continue tiling until you have finished covering the surface of the pan. Clean off any excess mortar that oozes up between tiles with a damp sponge.



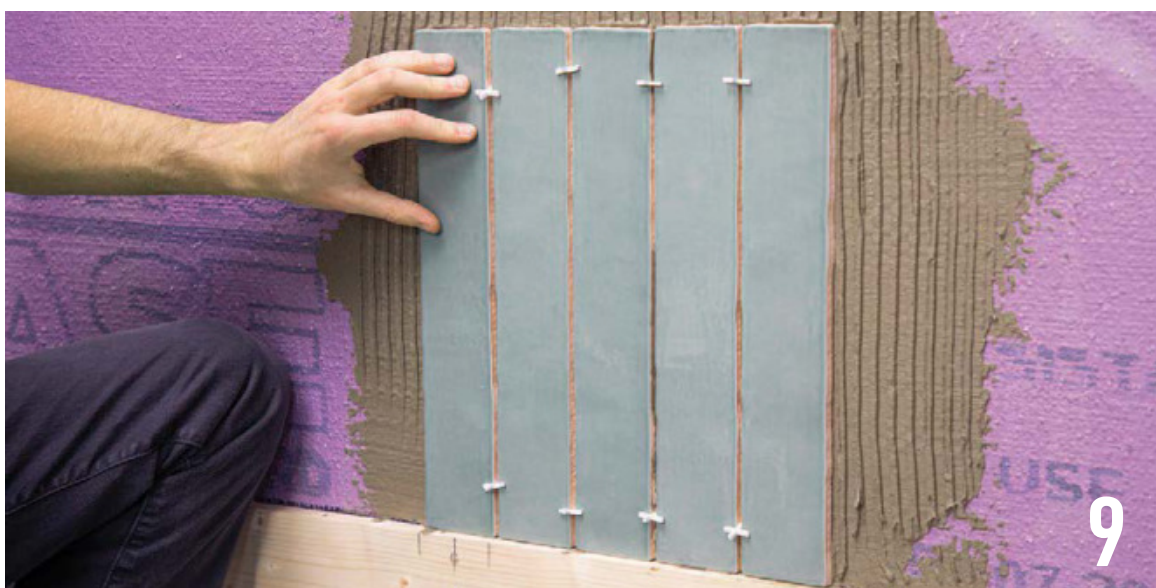
7 CREATE CENTER POINT ON SHOWER WALLS

Based on your tile shape and dimensions, it may be helpful to create a center point on each shower wall as a place to start tiling. First, measure the width of the back wall. Use a level and mark a vertical line at the center point. Next, mark the height of one tile resting on the shower pan. Using this measurement, use a level and mark a horizontal line on the wall. Repeat for the remaining two walls. Using the horizontal lines as a guide, fasten 2x4s to the walls with 1 1/4-in. screws. These will act as supports for the wall tiles as you begin. Shower pans are not always perfectly level, so this prevents you from having to depend on major first-row tile cuts to get a level first row.



8 APPLY MORTAR TO WALLS

Apply mortar to the shower walls using the technique described in Step 6. Be sure to lay down a drop cloth.



9 INSTALL ROW OF TILES

The secured board acts as a support and straight level for the first row of tiles. Push each tile into the mortar

to avoid empty space between the tile and mortar. Place spacers between the tiles as you go, cleaning excess mortar with a damp sponge. When you reach the corners of the first row, you may need to measure and cut the tiles with a wet saw. Finish tiling the first row around the shower walls. Once the first row of tiles is dry (after 24 hours), you can remove the board and continue tiling above and below.

10 **TILE AROUND SHOWER VALVE**

Mark the tiles where you will need to make your cuts with a wet saw or a diamond hole saw. I used a diamond hole saw when tiling around the hand-held shower arm because it was easier than notching out with a wet saw.

11 **REMOVE TILE SPACERS**

Once all the tiles are in place and have cured for 24 hours, remove the tile spacers. Clean off any dried mortar on the face of the tiles with a damp sponge if needed.

12 **APPLY GROUT WITH GROUT FLOAT**

In a bucket, mix the grout with a paint mixer attachment. Apply grout to the tile gaps with a grout float. Add pressure while applying to avoid missing any spaces between the tiles. With a damp sponge, wipe off excess grout and continue the process until all the gaps between the tiles are filled.

13 **CLEAN OFF GROUT HAZE**

There will likely be a haze on your tile after the grout has cured. Apply a grout haze remover solution, following directions based on the brand of solution you are using.

14 **SEAL TILE AND GROUT**

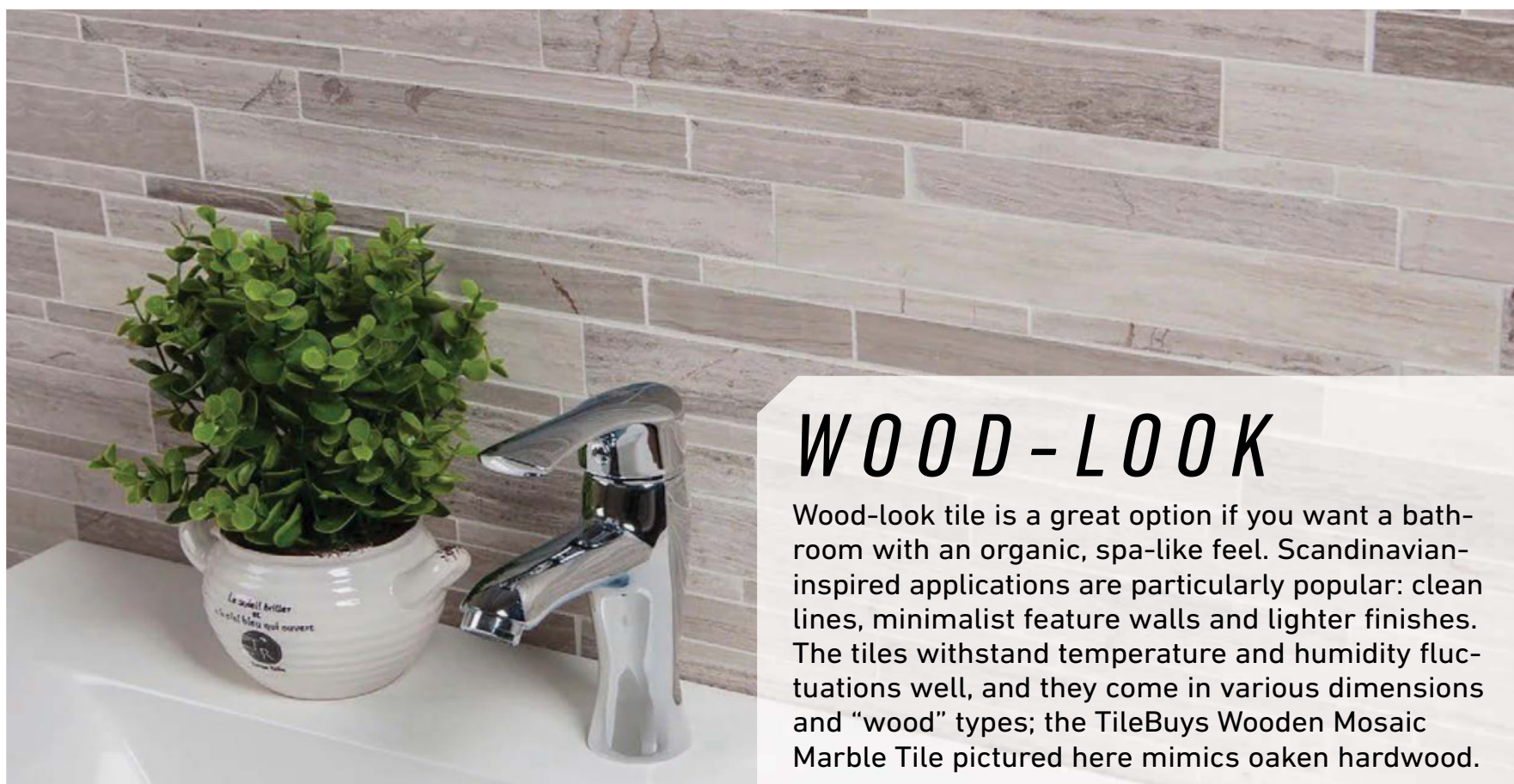
Once the tiles are clean, seal the tile and grout using a tile/grout sealer. Follow directions based on the brand of sealer you are using. 



STEP OFF THE SUBWAY

FIVE MORE TRENDING TILES TO TAKE YOUR BATHROOM FROM “BEFORE” TO “AFTER”

BY CHRISTINE CAMPBELL



WOOD-LOOK

Wood-look tile is a great option if you want a bathroom with an organic, spa-like feel. Scandinavian-inspired applications are particularly popular: clean lines, minimalist feature walls and lighter finishes. The tiles withstand temperature and humidity fluctuations well, and they come in various dimensions and “wood” types; the TileBuys Wooden Mosaic Marble Tile pictured here mimics oaken hardwood.

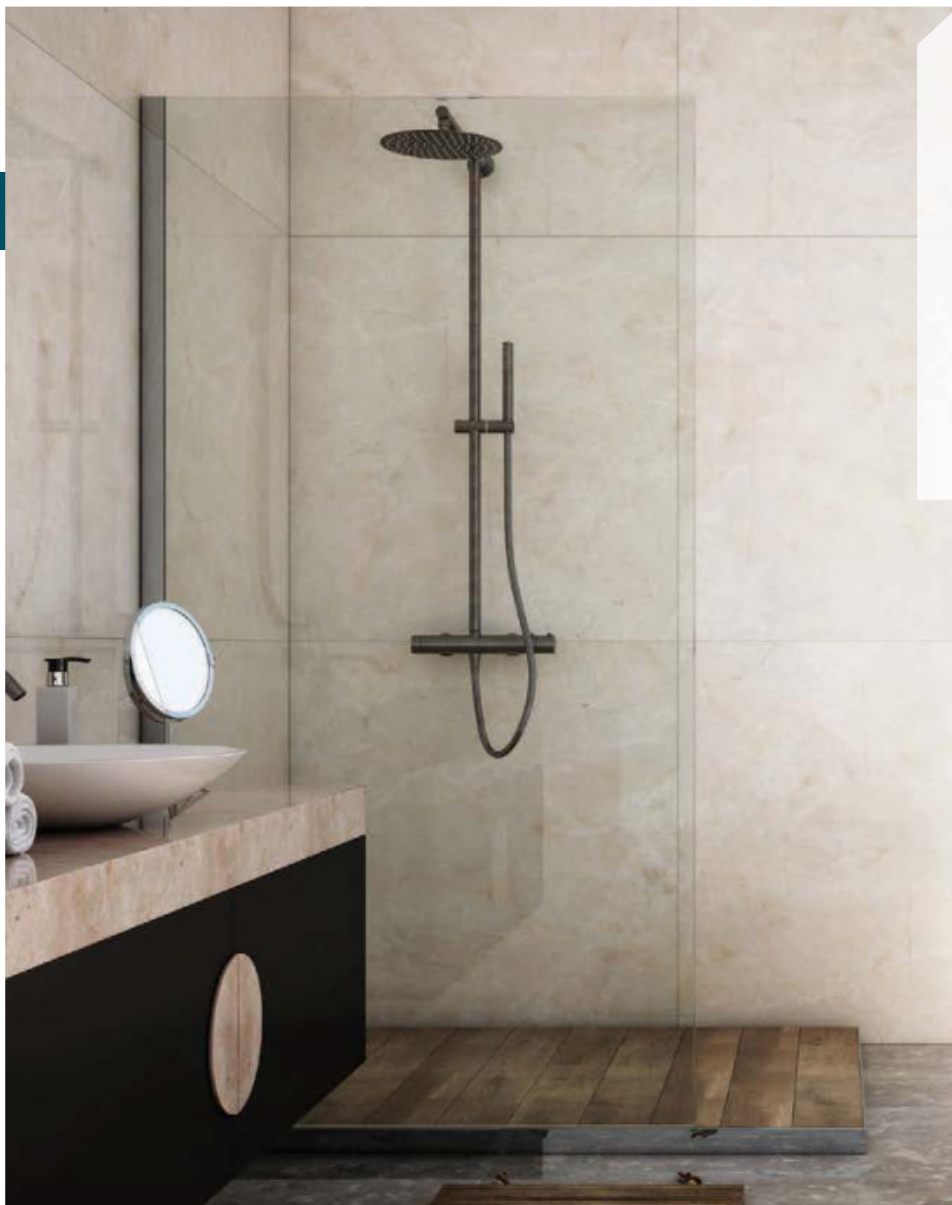
WOOD-LOOK AND STARBURST COURTESY OF TILEBUYS; PENNY: COURTESY OF MINERAL TILES



PENNY

Penny tiles have been popular in bathrooms for more than a century. Even in shades such as “Vintage Mint,” like the ones pictured here from Mineral Tiles, they have a timeless appeal. Perfect for patterned mosaic applications and customization, penny tiles can be used in showers, on walls or floors, or as accents around mirrors and sinks. The tiles typically come adhered to mesh sheets for easy installation, and they can even be applied on rounded surfaces such as arches and columns.





LARGE-FORMAT

Large-format tiles—those with at least one edge measuring 16 in. or more—create a sleek surface that makes small bathrooms look more open. The tiles are typically thin, but they're still heavy, requiring at least two people to install. Once they're up, maintenance is a breeze. Stone, porcelain and ceramic options are available, as well as bold patterns, textures and finishes.



STARBURST

Starburst tiles offer a bold contemporary look. And while floor-to-ceiling geometric patterns can overwhelm small rooms, choosing subdued colors, limiting your tiling to an accent wall or opting for larger-format tiles can keep things balanced (the TileBuys Starburst Pattern Hexagon Porcelain Tiles pictured here are 11½ in. wide). These tiles shine in spaces with neutral walls and furniture.



GREEN

Color is being used in bathroom tile more and more, and green is leading the way. From vibrant emerald to shimmery seafoam tones, green is bold and unexpected yet natural. Play with tile texture, style and material, choosing a shade that creates the atmosphere you're after. Boost organic elements with humidity-loving houseplants. 

HOW TO BUILD A BATHROOM VANITY

/////////
ELEGANT, SOPHISTICATED, AND YES, EASY TO BUILD—YOU CAN ATTAIN THIS SLEEK DESIGN WITH A CARPENTRY 101 APPROACH

BY CARMEN DE LA PAZ

A bathroom vanity is merely another piece of furniture in your home—albeit one that will probably get the most use, along with the subsequent wear and tear. And it's likely something you'd never consider making yourself. Allow me to help you change that perspective.

As I approached this project for building a bathroom vanity, I purposely designed it with clean lines and simple joints. Ultimately, I wanted a bathroom vanity with universal style—one that would fit well in any bathroom and complement any style. I hope to inspire you to try something you might not have considered before: making it yourself.

Bottom line: The whole secret to building a bathroom vanity is creating internal strength and strategically hiding all hardware so the whole vanity looks as if it is floating. Here are the steps I took, along with insider tips to help you make this elegant bathroom vanity with confidence.

Seriously, the hardest part of this build will be reading a tape measure to ensure exacting measurements.

MEET THE BUILDER



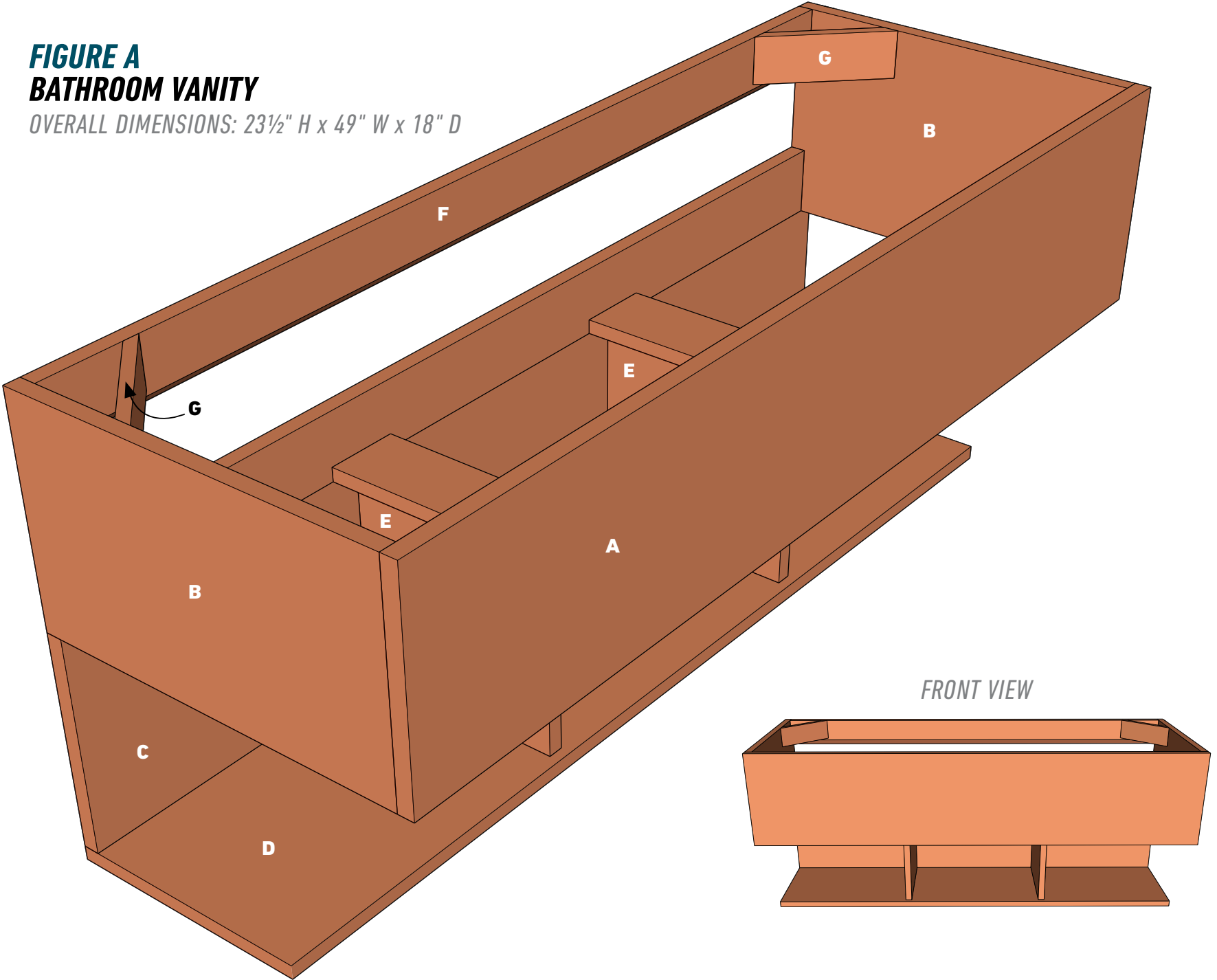
CARMEN DE LA PAZ HAS YEARS OF WOODWORKING, HOME RENOVATION AND ON-CAMERA EXPERIENCE FOR MAJOR MEDIA OUTLETS.





FIGURE A
BATHROOM VANITY

OVERALL DIMENSIONS: 23½" H x 49" W x 18" D



IMPORTANT NOTE:

When using wood glue on wood that hasn't been stained, have a wet rag on hand to wipe away excess glue from the surface. When you stain the whole piece, you'll be happy you did; dried glue won't allow stain to penetrate the surface, and you will end up with a less than perfect finish.

Be sure to do a test of your stain on the actual wood you're going to use—not just a sample piece. Stains change color with species of wood. Even with different pieces of the same species, stain will take on different feels. Avoid surprises and do a test at least a day before your project.

CUTTING LIST

KEY	QTY.	DIMENSIONS	PART
A	1	1" x 12" x 49"	Front face panel
B	2	1" x 12" x 17¼"	Sides (top section)
C	1	1" x 12" x 47½"	Center back section
D	1	1" x 12" x 47½"	Lower shelf
E	1	1" x 12" x 10"	Center shelf support/divider
F	2	1" x 4" x 47½"	Cleats
G	4	1" x 2" x 6" (Cut at 45 degrees)	Gussets
Not Pictured	1	1" x 2" x 47"	Wall cleat support

MATERIALS LIST

ITEM	QTY.
1" x 12" boards:	18 linear feet
18-gauge brad nails	
Wood glue	
Natural wood putty	
6" metal angle "L" brackets	
Straight metal bracket	
1x2, 1x4 (Can be either common board or plywood for hanging cleats)	
150- and 220-grit sandpaper	
Stain	
Sealer (polyurethane)	
Painter's cotton rags	
3" stain brush	
3" lag bolts	6

WHAT IT TAKES

TIME	COST
2-3 days	\$300 without vanity top or sink

SKILL LEVEL
Beginner-Intermediate

TOOLS REQUIRED
Miter saw or circular saw, 18-gauge nail gun, router, ½" straight router bit, Speed square, measuring tape, quick-release clamps

1 CUT WOOD FOR TOP PORTION OF VANITY

Using a miter saw or circular saw, cut wood for front face and two side panels for the upper part of the vanity.

2 MARK AND ROUTER FOR "L" BRACKET INSERTS

Lay front and side pieces flat and in tandem to where they will connect. An inch up from the bottom of the upper section, mark where you will router to install "L" brackets/angle iron. Using a router with a 1/2-in. straight bit, set depth to the thickness of bracket.

3 GLUE AND NAIL TOP SECTION OF VANITY (FRONT & SIDE)

Using a Speed square or a corner jig to ensure a solid 90-degree angle corner, glue and nail the front face to the side panels. Make sure the sections you routed for the brackets line up from front to side panels. Once you do this, you won't be able to go back with the router.

4 INSTALL 2 CLEATS ON BACK SECTION OF VANITY

To complete your square and provide rigidity. Install the two cleats on the back face of the vanity. The top cleat will go flush to the top edge so your vanity top has a place to rest, support and distribute the weight. The cleats will be part of your hanging mechanism.

5 PREDRILL POCKET HOLES IN GUSSETS

Predrill pocket holes on either end of gussets. For easy access, be conscious of placing pocket holes on the side facing the center of the vanity.

6 INSTALL "L" BRACKETS

Install brackets with screws, attaching the front panel to the side panels. Check the length of screw so they do not protrude out the front or side. You don't want to ruin the outermost part of your vanity.



PRO TIP

No one will ever see the gussets or the "L" brackets, but they will give the vanity longevity and ensure that it can handle the weight of leaning and the pressure of push and pull with use.



7

7 INSTALL GUSSETS ON UPPER CORNERS OF FRONT AND LOWER CORNERS ON BOTTOM SIDE PANELS

Position gussets flush to the top. Install gussets on upper corners or front, and on the back lower corners of the side panels. From the outer face, I nailed the gussets in place with the nail gun, and then I secured them through pocket holes from the inside.

Gussets will help the corners maintain their 90-degree angle, and they'll help distribute the weight of the heavy countertop.



8

8 CUT AND INSTALL LOWER BACK PANEL

Double-check measurements for the lower back panel, cut to measurement and install it using a ledger piece of wood to screw down into. I waited until I had put together the upper section to cut this piece because sometimes we may be off by $\frac{1}{16}$ in., and that will be a big deal.



9

9 CUT AND INSTALL SHELF

Cut and install wood for the lower shelf. Predrill the backboard to countersink the screws when you secure the shelf. Install with wood glue and screws from the back side, flush to the bottom.



10

10 ADD "L" BRACKETS UNDER LOWER SHELF

To add even more support and strength to the lower shelf, I decided to also add "L" brackets on the lower back side. Again, they are not visible. To make them flush, router a channel just as we did on the upper portion. This will bury the brackets and make them flush so they don't impede when the vanity is hung on the wall.



11

11 INSTALL 2 STRAIGHT BRACKETS

For more insurance for the connection from the upper square to lower back panel, add metal straight brackets. Again, use the router to create a channel and ensure it has more stability and is flush once installed.

12 CUT AND INSTALL 2 DIVIDERS/ SUPPORT SHELVES

Cut and install two center dividers. I also placed a 1 x 2-in. crossbar from front to back over the divider—for more strength and more working space to install screws or nails.

13 PUTTY NAIL HOLES AND PREP FOR STAIN WITH CONDITIONER

Do a final prep for stain. This means filling small nail holes with putty and ensuring dried glue is not visible in seams and joints. Once putty has dried, hand-sand all sections with 150-grit sandpaper, then with 220-grit sandpaper. Be sure to sand in the direction of the grain and go in sequential order of the sandpaper grit—meaning 150 first and then 220.

Prepare the outer section with a wood stain conditioner. This ensures the stain seeps into the wood grain evenly, giving you a higher-quality finish.

14 APPLY 2 COATS OF STAIN

In this case, I used two different colors of stain. In general with stain, I prefer to brush on and wipe off with a cotton painter's rag. Allow for the stain to dry completely in between coats. It is likely the grain of wood may bloat and rise, leaving a rough feel to the wood you nicely sanded. This is typical, so you'll need to do another light hand-sand with the 220-grit sandpaper to knock down the grain and make it smooth. You may have to do it again after the second coat and before you apply your sealer.

15 APPLY 2 TO 3 COATS OF SEALER

Apply two to three coats of sealer with a quality paintbrush. If you feel the grain is raised when dry, lightly sand it and apply another coat. Since the vanity is a high-moisture area, you might want to consider using a spar varnish. 





BATHROOM FACELIFTS

UNDER \$500

////////////////////
**TAKE A WEEKEND TO
SPRUCE THINGS UP
WITH THESE QUICK
DECORATING IDEAS**

BY CHRISTINE CAMPBELL



Smart hotel operators know how important it is to invest in great bathrooms. And it makes sense: Who doesn't love a stylish, comfortable bathroom that's stocked with everything you might need? Luckily, you don't have to shell out for a luxury hotel suite to have it all. Here are nine ways to turn your own bathroom into a dream space on a budget—making it a functional, inspiring place to start and end each day.

INSTANT UPGRADES

The fastest, easiest way to improve a bathroom is to change the shower curtain. It's an affordable swap with substantial visual impact. To keep things cohesive with the rest of your decor, choose a curtain with a light, neutral color and a simple pattern. You can introduce pops of color with plush new towels and an interesting bath rug; a rug with an unusual shape can add playful dimension.



1 SWITCH UP THE FLOOR

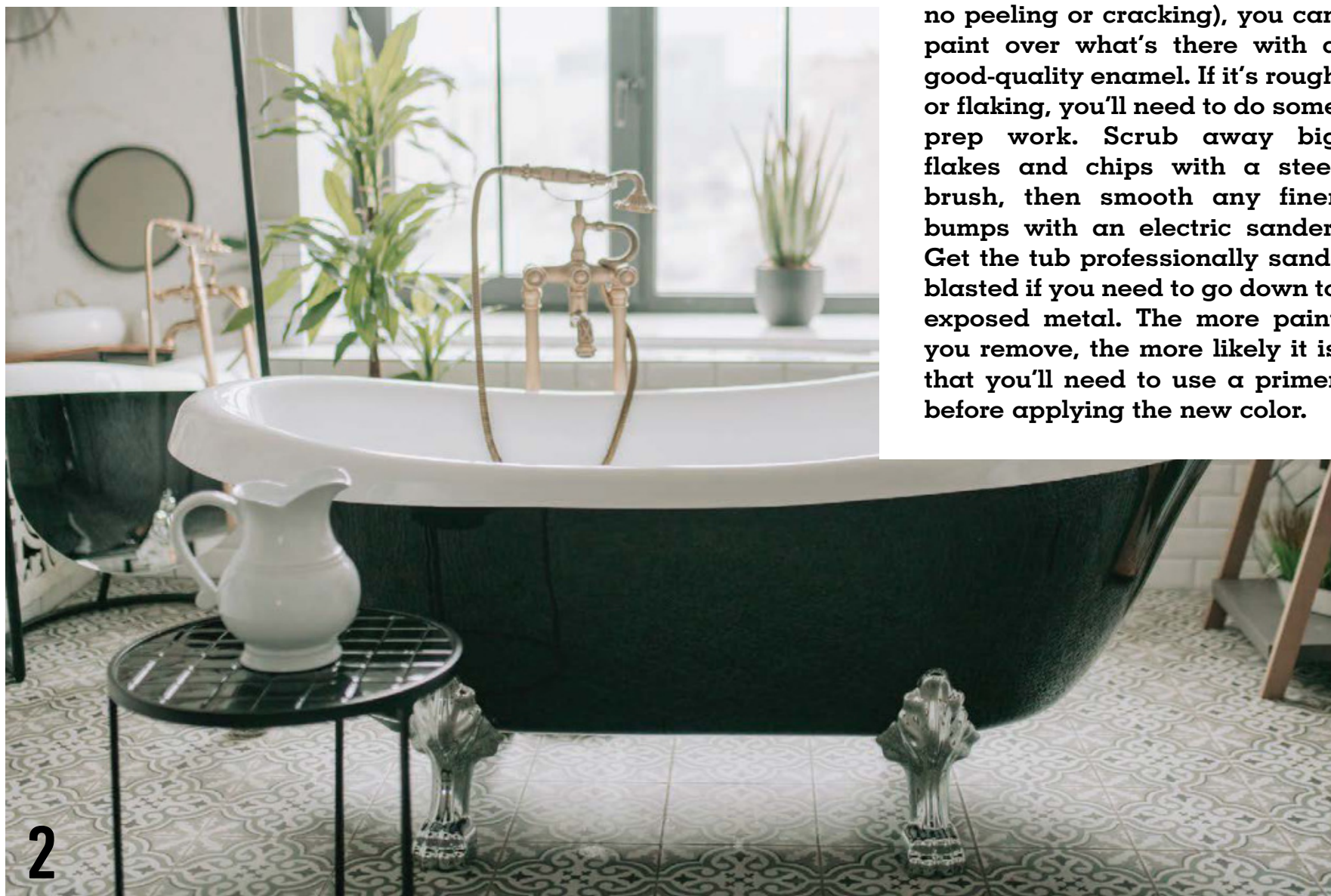
\$250 if self-installed

Vinyl has long been a top choice for bathroom flooring. It is slip resistant and relatively warm to walk on—and it's more affordable and easier to install than other popular options, such as ceramic tile. If you have a pre-existing vinyl floor, you can install new vinyl right on top, as long as the original is well adhered to the subfloor. Vinyl flooring comes in tiles or sheets in myriad colors and styles; while installing tiles is easier, a single sheet is best for bathroom floors since they often get wet. The Mannington vinyl sheet, pictured, offers the look of Carrara marble tile on a 12-ft.-wide sheet.

2 ADD COLOR TO THE TUB

\$50 if your existing tub is in good shape

A freestanding clawfoot tub is a classic bathroom fixture that makes an excellent focal point. To give it a quick facelift, simply paint the exterior. If the surface is in good shape (smooth, with no peeling or cracking), you can paint over what's there with a good-quality enamel. If it's rough or flaking, you'll need to do some prep work. Scrub away big flakes and chips with a steel brush, then smooth any finer bumps with an electric sander. Get the tub professionally sand-blasted if you need to go down to exposed metal. The more paint you remove, the more likely it is that you'll need to use a primer before applying the new color.





3 **INSTALL MIRROR TILES**

\$120 for a 4 x 6-ft. space

Mirror tiles can make a small bathroom seem larger by reflecting light around the room. They are also a decorative alternative to a single mirror above the vanity. Square tiles can be arranged in a square, rectangular or diamond shape, and they are easier to position on the wall above an existing tile backsplash. They're simple to install on your own, but you'll need a glass cutter and plenty of heavy-duty two-sided tape. Make sure to wear work gloves, and pay particular attention to your first tiles, aligning them exactly. Home centers sell six-packs of 12-in. square tiles for around \$25.

NEXT-LEVEL UPGRADES

Give your space a touch of luxury with these investment-worthy bathroom features.

Wall-mounted towel warmer. What says luxury more than a warm, fluffy towel waiting for you after a shower? An electric warmer—which can be plugged in or hard-wired—keeps towels dry and toasty and helps do the same for the room. From \$100.

Steam shower. Steam showers bring the spa-like relaxation of a steam room to your shower routine. They also come with potential health benefits: The high heat and humidity can reduce congestion, keep your skin and heart healthy, and bring post-workout relief. Some models also have jets and bench seating. From \$2,000.

Multijet shower panel. Why have a single showerhead when you can have a panel with six or eight jets? Unlike a steam shower (which is floor-standing and replaces your current tub or shower), you can add these to your current shower setup. From \$200.

Entertainment system. Once upon a time, a bathroom entertainment system was a clock radio. Today, Bluetooth speakers and waterproof flat-screen TVs offer a seamless experience. From \$50.



4 CUSTOMIZE YOUR WALL WITH STENCILING

About \$50

Stenciling is an impactful decorating technique that takes an artistic mindset. Design your own pattern and cut it out of acetate sheets, or buy stencils from craft and hobby stores (they range from \$10 to \$50, depending on complexity). We suggest simple, graphic, natural designs such as those based on the Arts and Crafts movement. You can create a pattern around the top edge of your walls or, if your bathroom has tile halfway up, apply it right above the tile. Artist's acrylic paint is a good choice for stenciling because it has a thick consistency, dries quickly and is ideal for repeating patterns. Use only one to three colors; beyond that, stenciling work gets truly complex and the art starts taking over the room.

SHOP ONLINE

Several websites sell stencils and stenciling supplies to home decorators. Costs are a little higher than you might think—often from \$25 to \$75—in part because you are buying a unique art motif. Online retailers also offer a much broader selection than you'll find in craft stores. We love these virtual stencil sellers:

cuttingedgestencils.com
dresslertencils.com
designerstencils.com
oaklanestudio.com
royaldesignstudio.com

A Time of Porpoise

A memorable beach moment: You're basking in the warm sun, toes in the sand, letting the gentle turn of the foam-capped waves lull you into a state of complete relaxation. As your eyes scan the endless horizon of blue on blue, you're rewarded with a pod of dolphins making their way across the sea.

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5

5 MAKE A TILED WALL

About \$400

Glossy wall tiles reflect light and make a space appear bigger. For a small bathroom, go for a mixture of cool, complementary shades. Tile often comes in sheets about 13 in. square, so you'll need a box or two to cover a wall. You'll also need spackle to attach the sheets to the wall and grout to fill between the tiles. Tiling is messy work, but with practice and care you can do it yourself and save a few hundred dollars along the way.

6 REFINISH CABINET DOORS

About \$175

This is a quick way to wow. Renew worn cabinet doors by topping them with wood veneer. Sheets are sold either 2 ft. or 4 ft. wide and usually 8 ft. long. Some come with peel-and-stick backing. Costs range from \$4 to \$8 per square foot, based on the wood type. You'll also need veneer edging for the exposed edges. Cut your sheets to match the existing doors and apply as instructed. Use an iron to apply the veneer edging. Remove the overhang and apply three coats of finish, just as you would with any wood.



6

5: NAZAR ABBAS PHOTOGRAPHY/GETTY IMAGES; 6: GREENP/GETTY IMAGES

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SKECHERS



7 ADD A DECORATIVE MIRROR

About \$75

A large artistic mirror can act as a focal point in your bathroom, just like a large painting. Almost every home decor store sells both framed and unframed mirrors in a variety of styles. But for an unusual size or treatment (such as etching, sand-blasting, tints or curves), go to your local glass shop and get a price for your personal design. It could be more affordable than you think.

8 OPT FOR BUILT-IN STORAGE

\$250 for a 6-ft.-wide unit

Who doesn't like to read in the bathroom? Yes, there's something wonderful about having lots of shelving in a bathroom, be it for magazines, towels, candles or shells brought back from vacation. You can build your own using marine-grade lumber and mold-resistant paint. Or attach ready-made shelving and bookcases to wall studs. For a smart and inexpensive solution, use Ikea's Billy line of clear-lacquered birch-veneer shelving units. A single 15 $\frac{3}{4}$ -in.-wide x 79 $\frac{1}{2}$ -in.-tall unit is \$79. A 31 $\frac{1}{2}$ -in.-wide unit is \$119. It'll take just a handful of cuts and adjustments to build around a toilet.



8





9 UPGRADE YOUR LIGHTING

\$50-\$250, depending on the number of lights

You don't need to add new lighting to make a big difference in your bathroom—simply upgrade your current fixtures to a more contemporary design. Many new wall sconces feature surprising shapes, glass colors and textures. Great options are available for as little as \$50; spending a bit more can get you unique art glass and top-quality materials. Home stores such as West Elm carry a variety of wall-mounted lights (such as the pictured Sphere & Stem 3-Light Sconce), as do lighting retailers such as Lamps Plus. 

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THE ULTIMATE GUIDE TO TOILETS

HERE'S
EVERYTHING
YOU NEED
TO KNOW

BY ALLY CHILDRESS

For a fixture that's mostly thought about behind closed doors, there's a lot to know about toilets. Which model will work best in your home? How do you fix those pesky flush hiccups? And what the heck is a bidet, anyway? We're here so you can get a handle on all those answers—and more.

Our “Best” List

IN THE MARKET FOR A TOILET? AVOID THE SWIRL OF RESEARCHING ENDLESS OPTIONS AND SIMPLY START HERE.

Today's toilets offer more bells and whistles than ever: self-cleaning, bidet attachments and even lights. But most of us want comfort and style at the right price. A strong flush using less water doesn't hurt, either. We've identified the best toilets out there, including top names and hidden gems, to help you in your search.



1 **STRONGEST FLUSH:** *GLACIER BAY POWER FLUSH,* \$199

This high-efficiency toilet dramatically reduces future repairs because of its patented hydraulic flush design—there's no flapper! It's quiet, too, as the fill valve stays submerged during the entire flushing process. A one-piece space-saving toilet, it still feels roomy because of its elongated bowl.

2 **BEST FOR SAVING SPACE:** *HOROW MODERN COMFORT,* \$259

Looking for a modern space-saving toilet? This compact one-piece is just 25 in. deep, yet features a full-size round bowl and standard rough-in dimensions. The high-efficiency dual-flush toilet has a skirted base and a side access panel for easy installation.



3 **MAX FLUSH POWER:** *WOODBIDGE T-0019,* \$334

This high-powered flusher earns the highest possible rating from MaP, aka Maximum Performance, the industry-accepted flushing ranking system. Even when ridding 1,000 grams of waste, it only uses 1.28 gal. per flush, earning the EPA's WaterSense label.

4 **EASIEST TO CLEAN:** *KOHLER CORBELLE* *CONTINUOUSCLEAN XT,* \$560

This attractive two-piece toilet dispenses cleaning solution

2: COURTESY OF HOROW; 3: COURTESY OF WOODBRIDGE; 4: COURTESY OF KOHLER



6

with every flush—just add two tablets to the tank reservoir for more than a year of hands-free cleaning. The patented ReadyLock mounting system eliminates the extra mounting holes that are often needed for skirted toilets.

5 **BEST FOR SAVING WATER:** *DELTA TURNER, \$179*

A classic two-piece toilet with a handle flush, this high-efficiency toilet is praised for easy installation, and uses a mere 1.28 GPF. The innovative SmartFit tank-to-bowl connection means you never have to worry about overtightening tank bolts again.

6 **SLEEKEST & SAVVIEST:** *SWISS MADISON ST. TROPEZ, \$391*

This sleek one-piece toilet offers two flush volumes. Plus, instead of regular rim jets, it features dual nozzles for more cleaning power. One-piece toilets are known for being simple to clean, too, and the included soft-close, easy-release seat makes the job even easier.



8

7 **ADA PREFERRED:** *CADET 3 FLOWISE RIGHT HEIGHT, \$219*

This popular two-piece toilet from American Standard comes with an industry-leading five-year warranty on chinaware and mechanical parts, and one-year on the seat. An ADA height-compliant toilet, it offers the benefit of easier sitting and standing, and everything you need to install the toilet comes in the box, including the wax ring.

8 **SMARTEST SEAT:** *HOROW HR-T10 SMART TOILET, \$440*

Into techno conveniences? This smart toilet has a few bells and whistles you'll enjoy, including a thermostat-controlled heated seat, touchless flush and a "pre-wet" feature that soaks the bowl before you go for cleaner flushing. The tankless profile is perfect for modern or minimalist bathrooms.

9 **WORTH THE SPLURGE:** *TOTO NEXUS, \$1,300*

For homeowners looking for a top-of-the-line toileting experience, Toto's Nexus isn't cheap, but it sure is gorgeous. This one-piece toilet comes in five colors to complement any bathroom decor, and it's designed to accommodate Toto's Washlet bidet attachment for extra cleaning luxury.



9

Top 5 How-Tos

DON'T BE AFRAID TO TRY YOUR HAND AT TOILET REPAIR. MOST COMMON PROBLEMS CAN BE SOLVED WITH A FEW TOOLS AND A LITTLE KNOW-HOW.

Wait. Can I really fix my own toilet?
Absolutely. Toilets are feats of genius yet simple engineering. All toilets, from humble to high-end, operate on fundamental principles: gravity, the siphon effect and a few mechanical components to get things moving. Whether you have a running toilet, a toilet that rocks when you sit or you just want to freshen up your bathroom, these tips will help you save money and learn new skills.

TOILET RUNNING?

A toilet that constantly runs wastes water and jacks up your utility bill. Plus, it's annoying. All-in-one repair kits can take care of the problem, but Alan Soukup, owner of Bluefrog Plumbing + Drain of North Dallas, Texas, says to check a few things first.

First, the handle. "Sometimes, the issue is as simple as the flush handle not returning to its proper position," Soukup says. Jiggle it a bit to see if it pops back up—it may need adjusting at the nut. Next, check the chain that's attached to the flush handle. If it's kinked or too short, it can keep the flapper from fully seating (closing). Finally, take a look at the float on the fill valve. A float set too high will overflow the tank, sending water down the overflow tube. Modern toilets usually have an adjustable float.

If these issues aren't the problem, inspect the flapper itself. "If it's damaged, corroded or misaligned, it can cause water to continuously leak into the bowl."



THINK YOU'VE GOT A LEAK?

If you're trying to diagnose a leaky toilet, look for these signs:

1. **Cracked flange.** The flange is what holds the toilet to the floor, and connects the toilet drain to the floor drain. If it's cracked, replace it or install a flange reinforcement ring.
2. **Low flange.** The toilet flange should sit no more than ¼ in. under the finished flooring. Sometimes people redo their floors and don't extend the flange to meet the new floor. Buy a flange extender.
3. **Rotted wood.** Depending on the severity, you may be able to use a flange support bracket to transfer the load past the rotted areas of the subfloor. Otherwise, replace the rotted subfloor.
4. **Wax ring failure.** If nothing appears to be wrong, resetting the toilet with a new wax ring might do the trick.

HOW TO FIX A ROCKING TOILET

1. Turn off the water and flush. The water shut-off for your toilet is behind the bowl.
2. Check the bolts securing the toilet to the floor. If they're loose, tighten them carefully with a wrench. Don't overdo it! Overtightening can crack the porcelain, and then you'll be replacing the entire toilet.
3. If it's still rocking, check to see if the floor is level. If the floor is uneven, use shims to stabilize the toilet. Loosen the bolts if necessary, and slide the shims under the toilet until it's level, removing any caulk. Snug up the bolts.
4. When the toilet's secured, caulk around the base to seal the gap. This prevents water seepage, which can lead to mold and unpleasant smells.

NEED TO REPLACE THE SEAT?

1. Pry up the two plastic flaps at the back with a slotted screwdriver. Reach under the bowl and hold the nut with pliers while unscrewing the bolt from above.
 2. If the bolts are still stuck," Soukup says, "try using a pair of pliers or a wrench to grip the bolt, and turn the nut below counterclockwise with the socket."
 3. To choose the right new seat, measure the bowl from the middle of the bolt holes to the front of the rim. A standard round toilet bowl measures 16½ in., and a standard elongated measures 18½ in.
- Good to know: Nontraditional seats, like D-shaped and square, are available in home stores. You can also ask the manufacturer.

HOW TO RESET A TOILET WITH A NEW WAX RING

The wax ring is a seal, keeping leaks and sewer gases out.

1. Clean the flange, your floor and the toilet. Use mineral spirits to get rid of old wax. You'll also need new closet bolts and hardware, shims (if the floor's not level), caulk and a new wax ring.
2. Insert new closet bolts into the flange. Center the wax ring on the flange, and set the toilet straight down on the bolts. Push down, or just sit on the toilet, until it's flush with the floor (use shims as necessary).
3. Tighten the nuts, saw off the excess bolt length with a hacksaw, and put on the decorative caps. Done!

HOW TO REMOVE A TOILET

Replacing your old toilet with a new model? Trying to find a leak? Removing a toilet is an essential skill for any homeowner, and you can do it in 30 minutes.

Turn off the water supply, then flush the toilet to get rid of most of the water. Using a big sponge and a bucket, get rid of the rest of the water. Consider using a wet-dry shop vacuum. Move the bucket under the tank to catch any remaining water, and disconnect the supply line from with a wrench.

If you have a two-piece toilet, remove the tank to make it easier to move. For one-piece toilets, which can weigh 100 lbs., you'll likely need a helper.

Use a wrench to loosen the nuts on the closet bolts holding the toilet to the floor. If they're really corroded, cut them off with a hacksaw (you'll be replacing them anyway). Then, cut through the caulk surrounding the toilet with a putty knife.

Pull the toilet off the bolts, rocking it back and forth slightly first to break the wax ring seal. Set the toilet down on its side so you can clean the bottom if needed. Be prepared for some water to slosh out.

Stuff a rag or towel in the drain to prevent sewer gases from escaping while you work on repairing your floor or replacing your toilet. Make sure you remove it later!

Clean the flange (the part that's headed into the floor drain) with a putty knife to remove the wax ring.



**WANT
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A VIDEO
OF THE
PROCESS?
SCAN THIS
CODE.**



Let's Talk Bidets

BIDET USE IS SURGING IN THE U.S. EVER TRIED ONE? HERE'S WHY WE LOVE THEM.

LEVER CHANGES ANGLE OF WATER

DIAL ADJUSTS WATER PRESSURE

NOZZLE

PRO TIP

Bidets that require electricity for heated water or a drying mode will need to be connected to a secure, grounded GFCI outlet to avoid any risk of shock.

READY TO TRY?

If don't feel like renovating your bathroom, install a Tushy toilet seat bidet attachment.

- 1. Turn off the water**
Shut off the water supply behind your toilet and the hot water supply under your bathroom sink. Flush the toilet to drain the tank. Unhook both supply lines. Just be sure to have a bucket handy so you can catch leftover water from the toilet tank, and a towel to handle drips.
- 2. Connect the adapters**
Screw the hose that came with the bidet attachment to the plastic cold-water adapter that goes to your toilet tank. Connect the adapter to the tank, then connect the flexible water supply line to the adapter. Connect the brass hot-water adapter to the hot-water supply under the sink. Connect the flexible sink line to the adapter.
- 3. Bring water lines to bidet**
Snake the hot-water tubing from the brass adapter under the sink to the toilet. Drill a hole through your vanity if needed. Connect the hot water tubing (from the sink) and the cold water flexible hose (from the toilet) to the bidet's hot and cold water intakes.
- 4. Add bidet to toilet**
Remove your toilet seat by unscrewing the two hold-down bolts at the back. Position the bidet over the bolt holes, reattach the toilet seat, turn on the water and—voilà!—you're done! 

Bidets have come a long way. Once relegated to jokes and quizzical stares from Americans traveling abroad, bidet installations are on the rise in the U.S. as the skeptical and squeamish come on board. And why not? Bidets offer benefits to your home's plumbing, the environment and your own self care.

SO WHAT ARE BIDETS, EXACTLY?

They're bathroom fixtures that clean your backside with water instead of toilet paper, and they have been around for hundreds of years. Once a staple of European upper classes, bidets soon spread to Asia and other parts of the globe. Folks in the U.S. didn't get the memo. Until now.

"People seem to be catching on

to the fact that bidets can offer superior cleanliness, conserve water, and add a touch of luxury to any bathroom," says Leah Tuttleman, interior designer for Re-Bath.

Bidets are also favored because they are better for your home's pipes (less TP to potentially clog your pipes).

HOW DO THEY WORK?

It's simple. Once you're finished going to the bathroom, the bidet directs a stream of water where you need to clean. Pat dry with a personal towel or toilet paper. Some bidets even have warm air drying. Bidets can be installed as standalone fixtures, hand-held sprayers or seat attachments.

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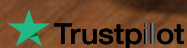
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BATHROOM FIX-IT Q&A

////////////////////
**FAUCET WOES?
TILE TROUBLE?
DRAIN PAINS? TAKE
A PROBLEM-SOLUTION
APPROACH TO ANY ISSUE.**

Bathrooms are typically the smallest rooms in the house. But they can cause the biggest headaches. With mystery leaks, paint bubbles caused by water and toilets gone awry, it may feel as if you need encyclopedic knowledge to keep everything running smoothly. But really, all you need are questions. We have the answers.

To make things easy, we have gathered the most common questions about bathroom woes and provide the you-can-do-it advice to solve them without stress.

BY FAMILY HANDYMAN EDITORS



ALEKSANDARNAKIC/GETTY IMAGES

Q WHAT IS THAT MYSTERY PUDDLE?

This is likely a splash leak, and it's simply water escaping past a shower curtain or shower door. Although it sounds minor, splash leaks cause damage when water seeps into the subfloor. Curb a problem before it happens by closing curtains and doors securely. And keep your eyes open for these signs of trouble:

- Curling vinyl flooring or loose tiles next to the tub.
- Peeling paint or flaking wood finish near the shower.
- Mold spots on the wall or floor near the tub or shower.

Or it may be the drain. To get to the bottom of it:

- If you have a shower door, splash water around the door and frame. Leaks may take a few minutes to appear.
- If the door has rubber gaskets or a rubber door sweep, check them for gaps.
- Also check for any gaps in the caulk where the shower or tub meets the flooring.

Q HOW DO I FIX A LEAKING BATHTUB?

Run a small bead of caulk around the inside of the frame. Force the caulk into gaps between the frame and the shower surround. Quickly wipe away excess caulk. When things dry, re-test for leaks.

Replace worn gaskets or door sweeps. Take old ones to a home center and look for matching replacements. If the old caulk along the floor shows gaps, scrape it out and run a new bead.



Q HOW DO I STOP THAT PESKY FAUCET LEAK?

It starts with buying the right repair kit. For a rotary ball faucet, one of the most common models, we recommend a kit with the ball, springs, seats and O-rings for the spout, as well as a repair tool.

STEP 1: LOOSEN THE ALLEN SCREW

- Turn off the water supply to the dripping faucet.
- Lift the handle and pry off the decorative cover to expose the Allen screw.
- Turn the screw counterclockwise until it's loose enough to lift the handle up from the stem.
- Note: If water is leaking out around the base of the faucet handle, you may be able to fix the leak by removing the handle and simply tightening the adjusting ring slightly.
- Turn it clockwise with the spanner tool included in the repair kit. If the faucet drips from the end of the spout, replace the seats and springs.

STEP 2: REMOVE THE CAP

- Unscrew the cap by turning it counterclockwise with slip-joint pliers.

STEP 3: REMOVE THE ROTARY BALL

- Lift off the plastic cam and packing.
- Lift out the ball and inspect it.
- Replace the ball if it's scratched, cracked or visibly worn.

STEP 4: REMOVE AND REPLACE THE SEATS AND SPRINGS

- Lift out the two rubber seats and springs with a screwdriver.
- Drop the new springs in the recesses and press the new rubber seats over the top with your fingertip.
- Align the groove in the ball with the pin in the socket and drop the ball in.
- Align the lug on the plastic cam with the notch in the valve body and set it over the ball.
- Thread on the cap with the adjusting ring and tighten it with the slip-joint pliers.
- Turn on the water to check for leaks.
- Note: If water leaks from around the ball stem, use the spanner tool to tighten the adjusting ring until the leak stops.
- Replace the leaking faucet handle, and you're done.



Q HOW CAN I MAKE MY SHOWER MORE ACCESSIBILITY FRIENDLY?

We checked with an expert: Paul Klassen, founder and CEO of the Pinnacle Group Renovations in Calgary, Alberta. He says that if you're building a new bathroom or remodeling to add an accessible shower, be sure it has the following features. Otherwise, try to incorporate one or more of these in an existing shower.

CREATE A WIDE ENTRY

To be compliant with Americans with Disabilities Act (ADA) guidelines, the entry should be at least 36 inches wide. But you should make it whatever size needed to accommodate the person's needs.

SKIP THE DOOR

"We build showers without doors for easy access," says Klassen. He recommends a glass panel splashguard. "We always spec 10 mm glass at a minimum," he says, because it's tempered and

extra thick. If you do include a door, make sure it's made of 10 mm glass.

CHOOSE A NONSLIP FLOOR

"Tile works well," says Klassen. "Choose a small tile, which is best for creating a slope to a center drain. Look for one with a coarse surface. The many grout lines created by the smaller tile helps the floor be nonslip too."

USE CONTRASTING COLORS

It helps to have color variance from the floor to the walls. That helps those with failing eyesight distinguish where the floor ends and wall begins. Klassen recommends dark colors on the floor and light on the wall. "A contrasting horizontal band of color on the wall is a nice design element," he adds.

PROVIDE GOOD LIGHTING

"The lack of proper lighting is a big contributor to falls," says Klassen. He recommends waterproof fixtures and accessible controls, or motion-activated lights.

INSTALL A HAND-HELD SHOWER

A hand-held shower with a sliding arm makes it fully adjustable to meet any needs. You may be able to change out an existing wall-mounted showerhead with a sliding arm version.

MAKE CONTROLS ACCESSIBLE

Locate any controls by the door, not across the shower. That way, the person showering can turn on the water without being in the shower stream.

ADD GRAB BARS

To avoid a hospital look, Klassen recommends a soap dish/grab bar or shampoo shelf/grab bar. If you're adding grab bars to an existing bathroom, secure them to studs. In a new or remodeled bathroom, line the walls with plywood for extra stability.

CONSIDER A SEAT

Try a flip-down seat attached to the wall. It can be folded up to open up the space in the shower.



Q WHY ARE THERE PAINT BUBBLES?

A layer of paint isn't adhering perfectly to its underlying surface, known as the substrate. Pockets of air or water have formed underneath. There are three steps to repair bubbled or blistered paint. First, however, you need to eliminate the underlying cause.

If your bubbles can't be traced to a plumbing leak, the culprit may be your roller cover. Choose a foam or a short nap cover for smooth surfaces, a medium one for slightly rough surfaces, and a long one for rough surfaces.

STEP 1: REMOVE THE DAMAGED PAINT

Use a putty knife to gently scrape away the paint that lifted from the surface using long vertical and horizontal strokes. If you just have a bubble or two, you may be able to sand them out.

STEP 2: PREPARE THE SURFACE

Clean your knife and use it to fill any holes in the substrate with a thin layer of patching compound. Let it dry, then sand the patched areas smooth with a fine-grit sandpaper. Clean and dry the surface and apply primer.

STEP 3: REPAINT

Stir paint slowly to avoid forming bubbles. Remember: Oil-based paint can't be used directly over water-based latex paint; the two layers won't adhere.

Q WHAT'S UP WITH THE FAN NOISE?

Well, likely your fan is simply old. Exhaust fans over 20 years old are bound to rattle.

Of the many replacement models to choose from, we like the Broan Ultra Pro Series 110 CFM fan because it can be installed from inside the bathroom. If you can locate a joist, cut drywall and handle basic electrical work, you can do the whole job in about two hours and save about \$200.

You'll have to remove the power cable from the old unit and connect it to the new fan. This must be done with the power off and breaker flipped for safety.

STEP 1: FIND THE JOIST

Most bathroom fans are mounted to a ceiling joist with the duct running parallel to the joist. Locate yours with a stud finder. Then locate the damper (you may have to remove the fan motor and blade from the housing). Mark the locations and widen the opening.

STEP 2: DISCONNECT AND REMOVE OLD PARTS

Unscrew the old fan housing from the joist. Then disconnect the electrical cable from the housing.

Q WHEN IS IT TIME TO REPLACE MY SHOWERHEAD?

It's a good idea to replace your showerhead if it:

- No longer provides strong flow. This can be caused by sediment buildup, so you can try to clean your showerhead before buying a new one.
- Has an unfixable leak. First, see if you can fix your dripping shower.
- Has substantial sediment buildup. This is especially common with hard water.
- Has uncleanable mold. You can try to clean off mold by soaking the showerhead in vinegar overnight and then running the hot water.

BROAN ULTRA PRO SERIES 110 CFM VENTILATION FAN

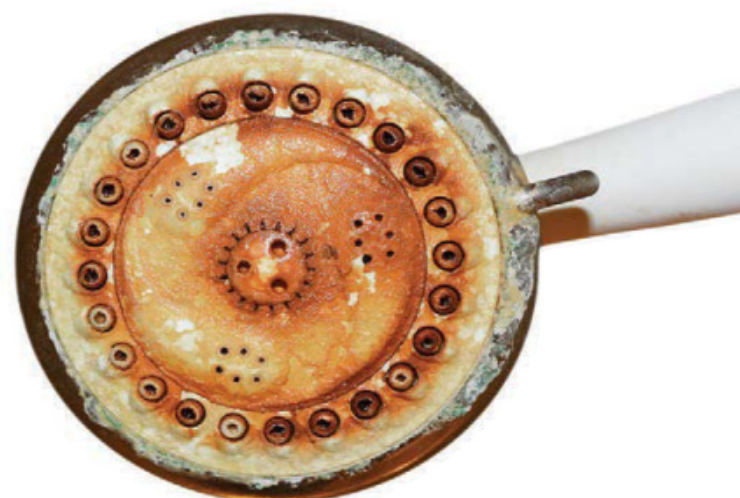


Finally, slice through the duct sealing tape with a utility knife and disconnect the duct. Install and secure the new mounting frame, and connect the electrical cable to the new housing, snapping it into the frame so the duct opening faces the existing duct. Connect the duct, damper and flange using aluminum duct tape. Finish the rough-in by connecting the power wires and ground to the electrical box. Then simply slide the fan into the housing and add the muffler and grille.

STEP 3: INSTALL THE NEW FAN AND MOTOR ASSEMBLY

A kit from Broan Ultra Pro cuts fan noise almost in half. Installing the new fan and motor only takes about 10 minutes, with no rewiring or duct work required.

You might also decide to replace your showerhead if you're doing a bathroom remodel or if you want a water-saving showerhead. When shopping for an eco-friendly, low-flow showerhead, look for the WaterSense label. 



BEST PRO TIPS

 EXPERT ADVICE FROM THE JOB SITE

GLASSWORK 101

////////////////////
**CONSIDERING INSTALLING GLASS?
HERE ARE THE MOST IMPORTANT
THINGS TO KNOW, FROM COUNTERTOPS
TO SHOWER DOORS.**

BY NINA BRICKO

Glasswork can transform any space. Swap that shower curtain for glass and increase the value of your home. Create a sleek or textured glass partition for separation in an open-concept home in a way that doesn't obstruct light. Use antique glass backsplashes as a unique focal point in your kitchen. Or up both the utility and artistry of your counters with glass countertops.

It's clear: Glasswork may be just what your home needs to make it uniquely you. I spoke with Andrew LeJeune from GlassArt and Glass & Mirror Minnesota about which glass trends can improve your space, and when you can DIY versus call a pro.

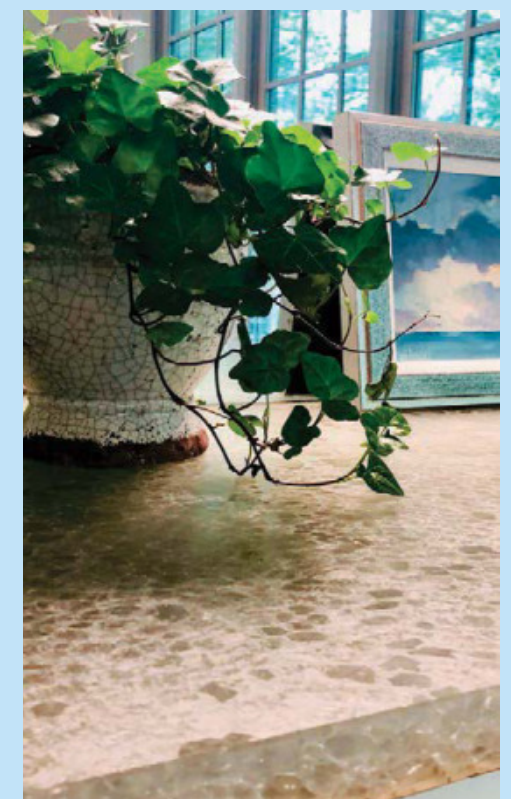
MEET THE PRO

ANDREW LEJEUNE, GENERAL
MANAGER AT GLASSART
DESIGN AND GLASS & MIRROR
MINNESOTA IN MINNEAPOLIS



SHOULD YOU GO SUSTAINABLE WITH RECYCLED GLASS?

Recycled glass can be used for a variety of countertops in the kitchen, bathroom or home office, and for other glass surfaces like back-splashes, shower doors and so much more. However, you do need to be careful when ordering recycled glass, as not every piece is truly eco-friendly. Some companies bind the recycled glass with resin, cement, porcelain, petroleum or other chemicals. So if you are looking for a truly eco-friendly glass piece that is 99% to 100% recycled glass, find companies that use glass frit for the bonding agent or no bonding agent at all. Also, look into where the glass is manufactured. If the pieces are being shipped internationally, the environmental impact of shipping may outweigh the benefit of using recycled glass. So order locally as much as possible.



COUNTERTOPS

Glass countertops are a chic alternative to granite or stone. According to LeJeune, there are distinct benefits to upgrading your space with them:

- **Heat resistant.** While laminate countertops might melt under a hot pot, glass counters can withstand the heat.
- **Not porous.** Glass countertops do not soak in stains or smells. And bacteria and dirt wipe up easily.
- **Long lasting.** Glass keeps its luster and looks as good as new even after years of use.

One downside? If something heavy is dropped on the surface it may crack and can be costly to replace.

PRO TIP

Installation might be something you can do yourself. However, working with glass is trickier than working with laminate or other types of countertops because the manufacturer needs exact measurements, and you can't adjust it once it's made. So make sure to ask your manufacturer what measurements are needed, and like Mom always said, measure twice.

When installing, the good news is that most glass tops are thick, which means that you can skip the underlayment and can apply adhesive caulk directly to the top of the cabinet. (However, always check with the manufacturer for tips on installation.)

Use painters' tape to protect the front of the cabinet from dripping caulk when adhering the countertop to the cabinet.

MIRRORS

A mirror adds elegance and sophistication to a room while also creating the illusion of space. In my own tiny home, I used this tactic by adding accent mirrors on my gallery wall, entryway, hallway and bedrooms. They are also incredibly customizable and come in varying sizes, shapes, patterns and stains, and can even be laminated or polished. No longer just the slightly chipped rectangle in your bathroom, mirrors belong everywhere and anywhere.

Because mirrors come in varying sizes, they all require different hanging methods. Drywall anchors or molly bolts are needed when hanging heavier mirrors, but knowing what to use depends on the size, shape and hanger. Fortunately, framed mirrors usually come with instructions and equipment to make sure it's hung properly. Mirrors are the most DIY-friendly glass item on this list, but if you go custom made or require a larger piece, you might need a pro to install it.



PRO TIP

When designing your bathroom, dig into the various types of tempered glass available. From clear glass to textured, tempered glass can be transparent, frosted, or tinted to match your decor.

SHOWER DOORS

According to LeJeune, more homeowners are going for sleek and modern frameless designs, “or adding metal grids on the glass for a contemporary vibe.” Shower doors add a transparency that makes the bathroom seem larger and therefore more desirable for home buyers. This is especially true if there is beautiful tile work in the shower that should be shown off. Whether you are upgrading your shower from that sticky curtain to glass or building a bathroom from scratch, there are a lot of options to choose from to customize your space.

But while having an enclosed shower can elevate your experience and increase the value of your home, installing tempered glass on your own can be a challenge. “You can’t cut or sand it down once it’s made,” LeJeune said. “If the measurements [of the shower] are off, not only will the end result not match your vision but you might also find yourself needing to order new glass ... When it comes to customized jobs such as frameless shower doors or precision-fit mirrors, it’s worth getting someone experienced.”

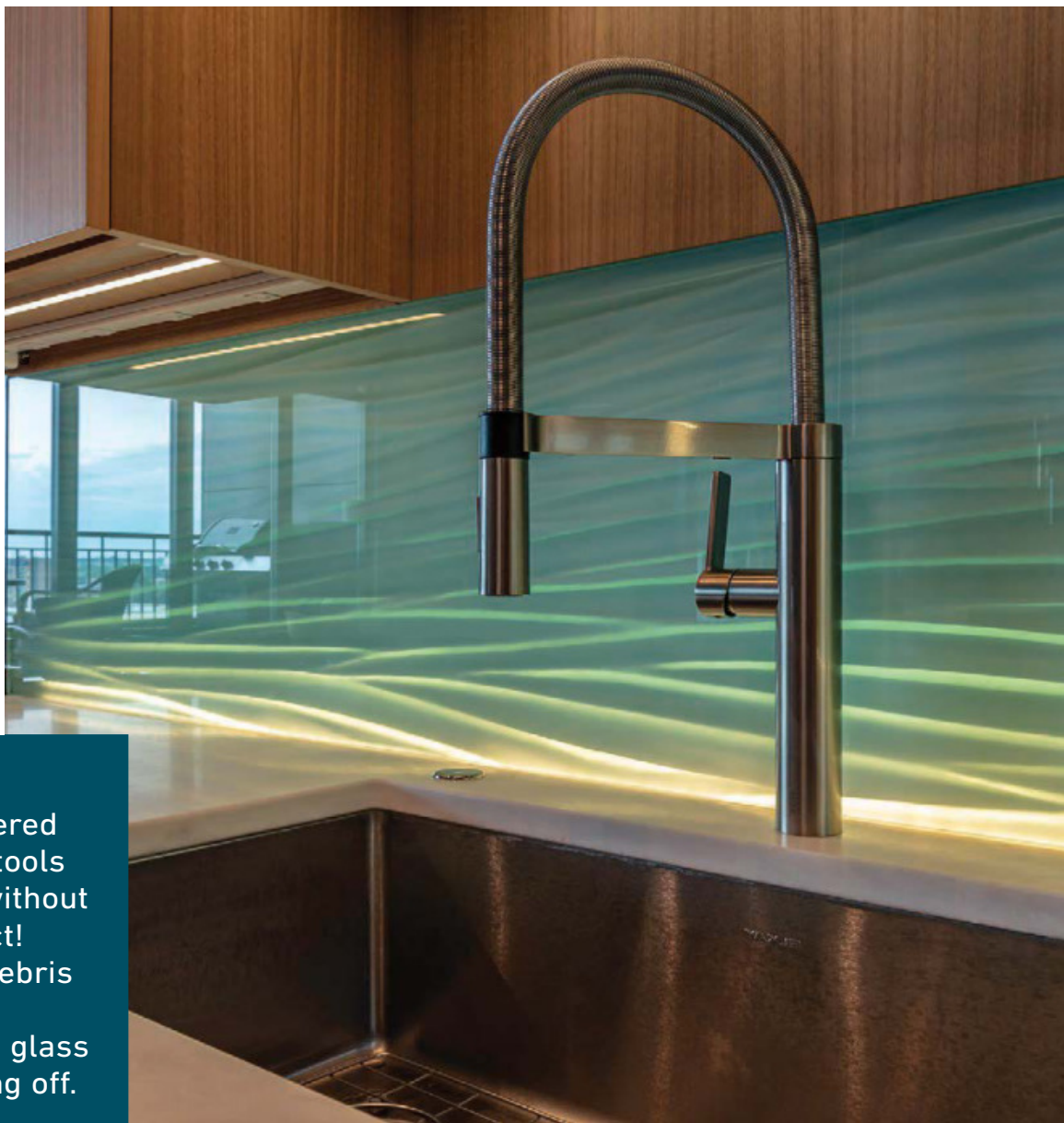
However, there are some basic framed shower kits that might be something an experienced DIYer could tackle. It just depends on what you want. Either way, reach out to a pro during the bathroom planning stages to help determine the type of glass, style, and shape of enclosure, so you can plan what you want to DIY and what you want a pro to handle.

BACKSPLASHES

According to LeJeune, sheet backsplashes are great for smaller spaces because they “make the smaller spaces feel larger by reflecting light through the entire kitchen.” Popular in Europe, these are beautiful options that are easy to clean. And since they’re full sheets that have been customized for your space, they lack grout joints between tiles that need to be scrubbed. So it’s truly easy to wipe down. What’s also exciting are the variety of textures to choose from, like carved or fire molded, making your backsplash a truly unique piece.

PRO TIP

The sheet of glass needs to be adhered to drywall, and professionals have tools to lift the glass and get it in place without harming it. So outsource this project! They’ll also be mindful of bugs or debris that might have fallen onto the wall before installing, because once that glass is adhered to the wall it’s not coming off.



CASA



MARS



1/2" CROSS REEDED



ADOBE



MOSAIC



WHY TEMPERED GLASS MATTERS

Prior to the 1960s, shower doors were made of annealed glass, which when broken shattered into sharp pieces. Since 1961, building codes have mandated that shower doors be made of tempered glass. Due to its unique heating and cooling process, this glass, when broken, crumbles into chunks, causing less harm than annealed glass.

Tempered glass comes in a variety of options:

- **Clear:** The ideal choice if you thrive on sunlight. It allows light to brighten up your space but has a green tint. Also notable: It also shows fingerprints readily and will need some extra attention to keep spotless.
- **Low-iron:** Illuminates the space more than clear glass as it is without the green tint, but with such clarity also comes a need for diligent cleaning to keep up a spotless look. There also
- isn't much privacy when a toddler comes waltzing in demanding a snack—but if you have kids, does privacy even exist?
- **Tinted:** Love a customizable approach? This comes in different levels of transparency that allow you to decide on preferred color and the level of light you want to pass through.
- **Frosted:** Is sandblasted on one side to create a clouded appearance. The biggest benefit is that it hides fingerprints and smudges, and provides a bit of privacy when your partner barges in to use the toilet.
- **Rain glass and textured:** There is a lot to choose from here, and you might be surprised at what is available. Talking to a design expert might be needed to help you match the texture to the style and look you are going for. 

HOME CARE

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GET READY FOR SPRING CLEANING

WE'VE GOT TIMESAVING HACKS,
TOOL TIPS & THE ULTIMATE
DON'T-MISS-A-SPOT CHECKLIST



BY NINA BRICKO

Spring is in the air. And cleaning is on your mind. When was the last time you dusted the lights? Changed your bedding? Shaken out those pillowcases? Washed the curtains? Don't spiral! It's going to be OK. Here are some tips and tricks for working smarter—not harder—so you can have a sparkling home in time for sunny days.

TOP 4 TIMESAVING CLEANING HACKS



1. DISINFECT PLASTIC TOYS IN THE DISHWASHER

Put down the Clorox wipes and simply use the dishwasher. It makes quick work of eliminating germs from plastic toys like Lego bricks. Put the toys in a mesh laundry bag to keep them contained and remove them before the drying cycle starts, opting instead to air-dry the toys on a towel. (Psst ... this method also works well for other items like seashells, dish brushes, rags and sponges.)



2. DUST BLINDS WITH KITCHEN TONGS

Dusting blinds can be quite a pain. It's difficult to thoroughly wipe both sides of the slats without bending them in the process. A pair of kitchen tongs makes it a lot easier. Simply cut a rag into two small pieces and use twist-ties or rubber bands to secure the rags around the tongs. Then close the tongs around each slat and wipe away the dust.

3. USE A LINT ROLLER ON FABRIC LAMPSHADES

Fabric lampshades are magnets for dust and pet hair. You can't just throw them in the washing machine, so what do you do? Use a lint roller! Be careful, though, when cleaning, as lampshades are fragile and can even become brittle. A torn lampshade is worse than a dirty one.



4. SWEEP UP DUST BUNNIES WITH A COMB

Every time you sweep, clumps of dust and hair collect at the ends of the broom's bristles. If you are doing a major clean, pulling these clumps between sweeps can be annoying and time consuming. To solve this problem, hot-glue a wide-tooth comb to the top of a dustpan. Just run the bristles through the comb to remove any excess gunk dangling from the broom.

TOP TIPS TO MAINTAIN YOUR CLEANING TOOLS



By spending a little time maintaining your tools, you can ensure they will continue working efficiently and, ultimately, that will save you money. Here are the top four cleaning tools and how to care for them:

BRUSHES AND BROOMS

Over time, bristles get dirty and nasties like bacteria and grime build up. Instead of cleaning, your brushes and brooms are pushing and spreading germs and dirt from one place to another. Here's how to fix that:

- ❑ Bang bristles on a solid surface to loosen trapped dirt.
- ❑ Rinse with clean water.
- ❑ Try this homemade disinfectant solution: Add 1 gal. of warm water to a clean bucket or sink, then mix in $\frac{1}{4}$ cup of baking soda, $\frac{1}{2}$ cup

of white vinegar and 1 cup of ammonia.

- ❑ Immerse the bristles in this concoction. Agitate by hand, then let soak for 30 minutes.
- ❑ Run a painter's comb through the bristles to remove leftover gunk.
- ❑ Rinse with warm water.
- ❑ Dry with bristles facing up, in the sun if possible.
- ❑ Wipe the handle with an eco-friendly disinfectant.

MOPS

As with brushes and brooms, you're wearing out and cross-contaminating your home with germs and dirt if you don't clean your mops. Follow these steps to keep them working like new:

- ❑ Shake out dry mops after every use.
- ❑ Once a month, vacuum and

wash in a sink using hot water and vinegar.

Or run detachable mop heads through a washing machine (delicate cycle) with hot water and mild detergent.

- ❑ Clean wet mops by agitating in a bucket with the disinfectant solution.
- ❑ Let air-dry and wipe the handle with disinfectant.

SPONGES

Sponges are a great cleaning tool. However, dirty sponges can spread germs and trap odor-causing bacteria and dirt particles that can quickly scratch finished surfaces. Deep-clean your sponges in the dishwasher. To disinfect a sponge, follow these steps:

- ❑ In a clean glass bowl, mix 9 parts warm water to 1 part bleach.



- ❑ Submerge the sponge. Use a piece of wood to hold it down to keep it fully immersed.
- ❑ Wait 30 minutes, then squeeze out the disinfecting mixture.
- ❑ Rinse in warm water and let dry.

BAGS AND BAGLESS VACUUMS

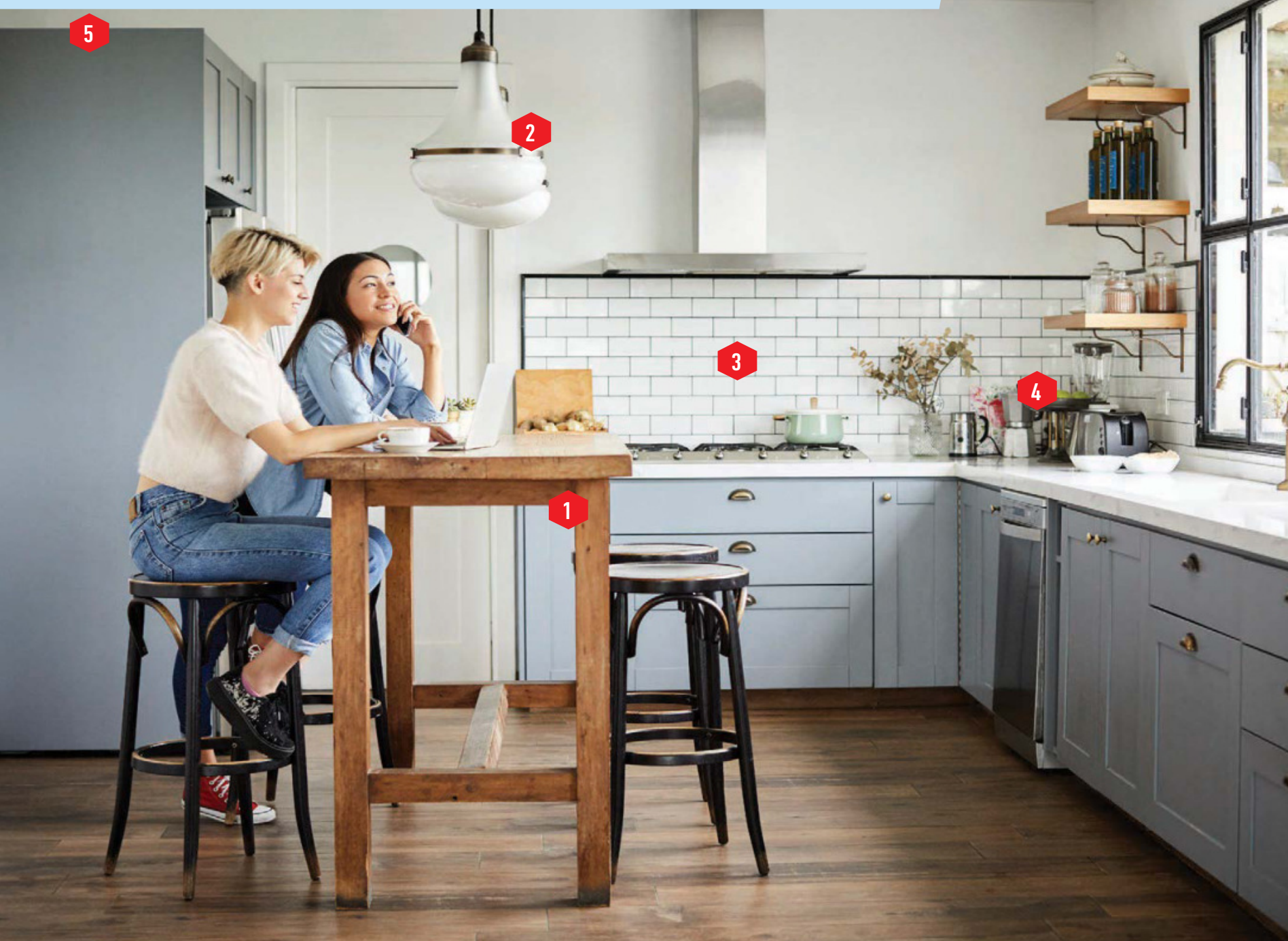
Vacuuming carpets definitely beats dragging them outside and pounding them with a rug beater. However, without proper upkeep, your vacuum's suction could be affected, and then you end up just shifting dust and allergens from one place to another. Clogged filters can also cause overheating as well as belt failure and premature motor failure. Help your vacuums work more effectively and last longer by taking these steps:

- ❑ Unplug the unit and remove, empty and sanitize the dirt tank. Or toss the disposable bag.
- ❑ On bagless models, disassemble the dirt tank.
- ❑ Remove reusable/washable filters and hoses, all removable parts and accessories, and the HEPA filter (if equipped).
- ❑ Fill a large basin or sink with a disinfectant solution. (Adjust ingredient quantities as necessary.)
- ❑ Soak the washable filter(s), dirt tank, hose and all removable parts and non-electric-powered accessories for 30 minutes. Don't soak the HEPA filter. And remember: Never place electrical components or nonwashable filters in water.
- ❑ Using a clean, dry brush or compressed air, thoroughly

remove dust and dirt from the vacuum's passageways, nooks and crannies.

- ❑ Wipe the outer shell and exposed areas with a damp microfiber towel and disinfectant.
- ❑ Thoroughly scrub all parts and accessories.
- ❑ With a garden hose, flush away any muck trapped inside the hose.
- ❑ Remove and sanitize the beater bar/brush head. Note the position of the drive belt(s).
- ❑ Inspect brushes and drive belt(s) for wear. Replace if they are worn, frayed or delaminating.
- ❑ Cut away any trapped hair, string, etc., wound around the beater bar or wheels.
- ❑ Replace HEPA filters once a year.

UH-OH...DON'T MISS THESE SPOTS!



There are always the obvious places to clean, but what about the most common misses? Here are the top five places to add to your checklist.

1. UNDERSIDE OF CHAIRS AND TABLES

I put my hand under a chair the other day and I kid you not, there was old, sticky, half-hardened slime from my daughter's slime kit smeared across it. So yeah, I haven't washed under my chairs in months.

2. CHANDELIERS AND OTHER LIGHTING

They can get gross. I've had lights become greasy. I don't know how, but it happens.

3. KITCHEN BACKSPLASH

This seems obvious, but in my day-to-day I might give this a quick wipe but not a real scrub. If you cook with oil, there will be a buildup of greasy oil on those tiles. So pull out that toothbrush and give it rubdown.

4. SMALL APPLIANCES

I toast the bread and then put that toaster away. Who has time to clean it? My kids need their toast! So add this to your checklist. Your toaster will appreciate the attention.

5. THE TOP OF KITCHEN CABINETS

Dust and grease accumulate up there, so that area needs some attention before that terrible mix damages the wood. I know, who looks up there?! But trust me, it needs some love. 

family handyman

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GREAT GOOFS



LAUGHS AND LESSONS FROM OUR READERS

HOMEOWNER 0, MOLES 1

Each year the moles arrive and wreck my perfect lawn with their earthworm-mining tunnels. I've tried all sorts of traps and solutions over the years, and last year I decided to try a different approach. One evening, I stamped down the mole trails and waited with a pitchfork. As soon as I saw a little quiver in the stamped-down trail, I knew a mole was moving and I attacked, plunging the sharp tines into the soil over and over to spear the varmint. I figured I must have speared the critter, but who knows?

The next morning I noticed something odd about my lawn irrigation system. The ground was rising and bulging and occasionally sending up an errant spray of water where no sprinkler head was located. Upon closer investigation, I found that even if I hadn't speared any varmints, I had done a nice job of perforating the underground water lines.

KENT STEVER



OUTLET UH-OH

I remember when my father decided to wire in an electrical outlet in my twin sister's bedroom between the beds. After careful measurements he marked the wall and cut out an access hole. He went up to the attic with a drill, string and weight. I heard some drilling and he yelled down, "Do you see the weight?" I yelled back "No!" and he said, "There must be a cross stud." He then went out to buy a long extension bit. Back to the attic again. I heard the drill and then a crash. He yelled, "What was that?" I ran out of the bedroom to the bathroom—he had drilled a hole right through the medicine cabinet! There was silence ... then a few swear words. Back to Plan B with the extension cord!

HENRY SCHUMACHER

OH...THAT'S WHAT THAT WALL IS FOR

Our first house was a two-story frame home. The 12-ft. hallway leading to the dining room seemed to serve no purpose, so we decided to remove the wall and expand the size of the living room by almost 4 ft.

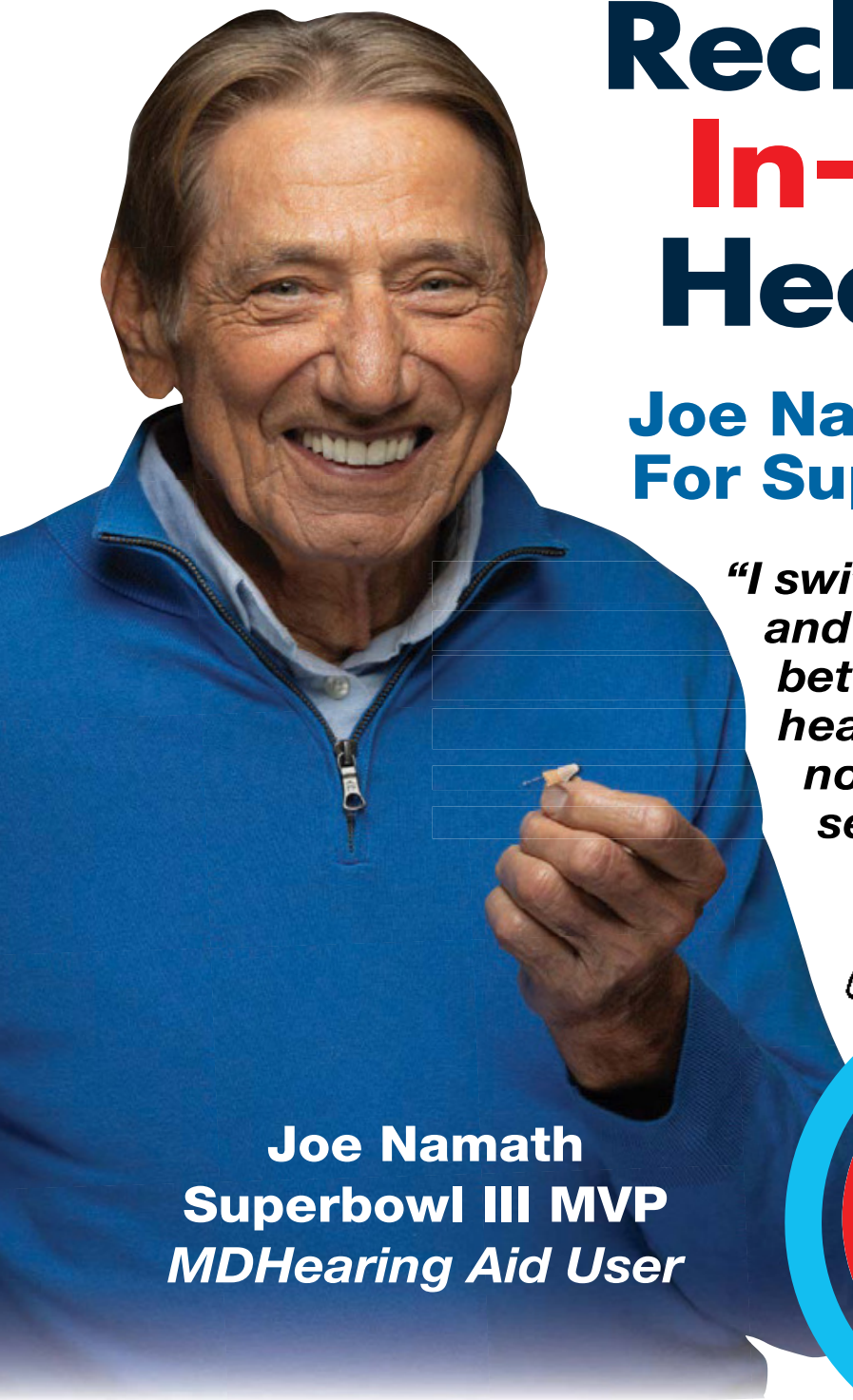
After assuring my wife that I could finish the project over a long weekend, I started demolishing the lath-and-plaster wall. By bedtime, I had the wall down and most of the debris bagged and stacked. I climbed the stairs to our bedroom, which was directly above the living room, and went to sleep.

The following morning I awoke to a bowl-shaped bedroom floor! I stepped gingerly across it, ran down the stairs and discovered that the living room ceiling had sagged 6 in. during the night! Turns out I had removed a load-bearing wall. As we sped to the rental yard to pick up jacks, I sheepishly told my wife that I might need more than three days to finish.

PAUL GRISSON



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