

I did my first science experiment in the bathtub with dish soap and a knife. That bath seems like the place to start, because it was my first laboratory and my first failure. It happened a long time ago, before my brother was born. It feels like it happened to somebody else – to a little girl who wanted to be a scientist but didn't really know anything.

She got the idea from watching a shampoo commercial. Commercials always looked the same – a woman went into the shower and filled her hair with bubbling suds. She scrubbed and smiled and rinsed, and then her hair fell down shiny and heavy and perfect for the camera. The little girl figured she could replicate those results, so she grabbed her supplies and headed for the bathtub.

She filled the tub halfway and got in. For months, she had been pulling her hair back in a ponytail-loop thing to hide the fact that it was all locked into three big knots. Well, today was the day they would be gone. She didn't know that those knots were a biome for spores and bacteria. She didn't know what the reaction would be when she introduced a lysis agent. She didn't know anything, not even how to brush her own hair.

Sitting in the hot water, the little girl poured out a handful of bright-yellow lemon-smelling dish soap and clapped it right to her wet head. The commercial said the soap would break up grease, and her hair

felt greasy. It was a primitive hypothesis, and she had an idea for a test. She poured out a second handful and did it again, on the other side. She set the bottle down and started to work it in.

Her head foamed up and the suds started to drip over her eyebrows. She thought about the woman in the commercial and she scrubbed and smiled, scrubbed and smiled. The bubbles ran into her eyes. They stung and watered, but she didn't want to be a baby and cry about it. She worked it all the way through and then lay back in the water to rinse it out.

Her hair didn't fall down shiny and heavy and perfect for the camera. The soap stripped all the dirt and oil out of it; the bathwater turned gray under the layer of gasoline-rainbow soap bubbles. The lysis reaction was successful. Her curly mess of hair was now dry as a broomstick and locked tighter than ever, but at least it was clean. She was a pretty stupid little girl, and she'd been expecting this to work better. The experiment did not produce the anticipated results, but she didn't call it a failure. She observed that the process was difficult and would be hard to replicate.

She picked up the knife next.

It was a heavy-handled kitchen knife, actually meant for cutting the bones out of pieces of meat. It was sharp, and she at least knew enough to point it away from herself. Holding her first fat knot at the ends, she took a deep breath, closed her eyes tight, and stabbed into the middle, pulling downward to cut it into smaller knots. She did it again and again, trying to get closer to her scalp.

This wasn't science. This part was just work. The first knot was exhausting. She had cut it into six finger-size pieces, and her arms ached from holding them up and working through each chunk. Her eyes stung. The knife ripped through her hair with a sound like sawing meat. She didn't care; she got through the first and started on the next one. When she had sliced up her knots as much as she dared, and managed somehow not to cut herself, she put the knife down and got the brush.

She tried to start at the top of her head and brush down, but even she could see that would never work. She switched and started at the bottom, pulling out an inch at a time, working up to the scalp. Most of what was detangled from the locks fell out and caught in the bristles of the brush. Some of it went into the tub. A little bit stayed on her head. After a few locks, she had to yank out a small rug of hair from the brush so that it would keep working. These she laid on the floor beside the tub. They piled up wet and straggly, like something a cat would leave behind.

The little girl wanted to stop. Her arms were tired. Her bathwater was cold. Her head and neck hurt all over. She did cry like a little baby, because it was all so *hard*. I wish I could tell her that's life.

Life is hard and complicated and messy. Life is parasites that live in your gut and brilliant scientists teaching a gorilla to use sign language. Life is moths that drink tears, and the flu virus, and nothing you can control. Life is sometimes using a knife to comb your hair, because absolutely nothing else works, and life always finds a way through. I want to tell her what I always tell myself now: that's life. It cheers me up and it calms me down. It reminds me to focus on what I can do rather than what I can't.

That's life. Even back then, she understood. She kept up the hard and painful work, and she got through it. After what seemed like forever, she had some awful, ragged, chopped-up curls still attached to her head. She could pull her brush all the way through it. It squeaked when she touched it, and it looked like the coat of a shelter dog. She didn't care. That was a successful experiment.

That little moron sat there with her red eyes and her cold dirty bathwater, brushing her hair slowly, glancing bristles off her aching scalp, thinking that her hair was as soft and clean as the hair of a princess.

I guess I can let her have a moment. But really, what an idiot.

She's me. I did that. I'm not pretending she's not me. It's just that a lot has happened since then.

That time I experimented on my own hair with a knife and dish soap in the bathtub wasn't the first time I knew there was something wrong with my mom. Or wrong with me. That we were doing it wrong. But it was the first time I realized that help was not on the way. It was the first time I went from being a subject to being an observer – to really doing science.

It was the first time I just took care of it myself.

Hard to pick a place to begin, but I believe that's how all this got started. You probably want to know about my video, everybody asks me about that. Some people ask me about #FindLayla and if I got anything out of it. People ask me where my brother is now.

I stand by that video and everything that came after.

What I got out of it . . . that's complicated.

And my brother is gone.

*Monday 6:45 a.m.*

Every day I hope that the walk to school will air out my clothes enough so that they can't smell it.

I walk slowly, leaving early. I read a book while I'm walking. I used to bump into stuff and worry about the crosswalks, but I've got it down these days. My little brother starts an hour later, so I get to walk alone. I used to take the straight route along the street, passing the pizza place and the magic shop that hustles me out when I go in to just look. After we moved to this town and got settled, I found the back way that took me through the park. There's a tiny break in the wall that's overgrown on both sides with honeysuckle. You can barely tell it's there, but I found it.

I looked up the flowers before I touched them. They're Caprifoliaceae. Common here in Southern California. Not poison. Good for bees. I drink from the little yellow trumpets sometimes, pulling them off the vine and biting through the green cup at the bottom of the gold. They're full of sweet nectar that tastes a little like their perfume smells. I tried rubbing it on myself once, but I just got sticky.

Fourteen is too old to be sticky.

I'll have to walk home with Kristi, who lives about eight blocks away, and my little brother. He always comes home with me. Kristi

Sanderson is my best friend. She's a lot sometimes, but she always loans me her phone or her laptop. She takes my side when other kids pick on me. Mostly. She reads me her poetry and shows me her drawings. What we have is symbiosis: that relationship between two organisms where they both get something they need out of it, like clown fish and anemones have. Like the anemone, she's got secret sharp places. Like the clown fish, I've got better defenses than most of my kind. It works.

Today I like the walk, because the fog rolled in over the park. The weather guy on the news calls it the marine layer. I watch the weather guy (because my phone is garbage) long enough to find out if I need to wear my old shoes in the rain and then change at school into my better ones. My socks stay wet all day, but at least nobody knows.

Then I switch to the channel that plays *The X-Files* from five to seven a.m. I like to watch Dr. Scully work to explain the impossible but always return to what she knows she can prove. It's an old show, but it's really cool. And there aren't that many women scientists on TV nowadays.

If I get to school early enough, there's free breakfast for anybody who gets free lunch. They butter the toast before they put it in the oven, so it comes out hot and golden and bubbly on top. It's stupid how much I look forward to this.

In the cafeteria, the floor is wet and my shoes slip a little. The bottom of the left one is mostly duct tape. It doesn't stop the leak, *and it's* slippery. Failed experiment, but I don't have another hypothesis. I manage to stay upright and head into the tunnel where we get our plates. A couple of girls on shift this week are people I know; when the breakfast program started, they also started a work program so we could see what life is gonna be like. On one hand, life is bound to suck and involve a drive-thru window. On the other hand, you get to eat as much leftover breakfast as you want after your shift. I'm not on for a few more days.

They load me up with the fakest eggs in existence, a fruit cup, and my favorite thing in the world: magical buttery whole-wheat toast

triangles. The toast stays soft in the middle, a perfect golden circle where the butter sinks into the bread while it pools in the heat of the oven. I munch around it in a circle, eating the dark-brown crusts and saving the best bite for last.

I sit on one of the long benches that folds out of the wall and reopen my book. Breakfast is not even half as loud as lunch, and people are too zombie-eyed to make fun of me. Mornings are just better.

The girls across the table are loudly advertising their ignorance, and it's hard work to tune them out. I resort to pretending to read while eating and try to keep my eye rolling to a minimum. Wish I had big headphones.

"Yeah but I heard if you shave your junk, your hair comes back darker."

"That's seriously true. After I started shaving, it's all dark and way thicker than before."

"That doesn't make any sense. When you cut your hair it doesn't grow in darker than before."

One of them is nodding her head with her mouth open, an expression that makes me want to punch people. I look back down at my book.

"Yeh-huh. I had blonde hair as a baby, and now it's all brown. It's because they cut it. If they left it alone, I'd still be blonde, plus it'd be way long. Plus, you never see pubes in pics. You gotta do it, but once you start you can't stop."

They Google it, then argue with Google. I wish there was Wi-Fi on campus so I could live-tweet this conversation. For once, I'd be the one sharing someone else's embarrassing moments. But I can't connect, and if I write it down and tweet it from a computer later it won't be as good.

They finally get up and leave, not bothering to clear their trays. I don't move until they're through the cafeteria doors.

After they're gone, I swipe their toast.

*1:45 p.m.*

"I don't understand why I can't stay over. You've been to my house a thousand times. I've never even met your mom. Just your dumb-ass stink-bomb brother."

Kristi is making that face in the mirror again. The one that makes her lips look bigger and her cheeks look smaller. She'll do it for a few minutes and then finally take a picture.

I've seen it enough times to know that I don't care and that it doesn't matter what I think. She'll keep the pic or delete it no matter what I say, based on whether she thinks she looks fat or her freckles are too clear to get filtered out.

But the real problem here is that she said Andy was stinky. He totally is, but I need to know what kind of stink she meant. Is it his little-boy-won't-bathe stink, or something else? We live in the same house, in the same room, usually in the same bed, because he has nightmares and I can't tell him no. Maybe the morning walk isn't working.

I've waited too long to answer.

"We're not even real friends. If we were, you'd want me to come over and see your room. We could stay up watching those old movies you love. The ones you're always trying to tell me about."

She means the ones she always thinks are lame and makes fun of. Yes, that sounds great.

"Kristi, I'm sorry. My mom doesn't let me have people over. She just . . . hates it. I don't know why, okay?"

She makes the face again and takes a pic. The flash lights up the room and makes her a white redheaded nobody. My eyes get that green burned spot for a minute, and I blink. In the long, echoing girls' bathroom, I'm nobody, too. Hair pulled back tight. No makeup. I tell people I'm allergic, because it's easier than admitting I don't have any and don't know how to use it. Lipstick kisses smear all along the chipped bottom of the mirror, but not one from me. I'd love to grow a culture



from the edge of that mirror and show them what they're really kissing. If we had some agar plates, I could do it. But we haven't gotten to that experiment yet in class.

If Kristi will let me borrow her phone, I can sign into my Instagram and post a photo explaining the experiment, since I can't really do it. But now does not seem like a good time to ask.

"Shit. No, it's not okay." She turns off her flash and does the face again. I know she'll hate her forehead wrinkles, but I don't say anything. "That's not fair. It's your house, too. Why is she like that? Can your brother's friends come over?"

Shutter noise, another delete.

"No, nobody can."

"What about your mom's friends?"

I have never met anyone who was my mom's friend. I consider the possibility that she has some, somewhere.

"Nope, not even them."

"That's fucked up."

"Sorry."

She finally gets a picture she can use, so we leave the bathroom. The breezeway is deserted.

"Shit. We're late."

I still don't take off.

"I didn't hear the late bell." Kristi pulls her backpack up to her shoulders and shrugs into it. "Okay, see you later."

She runs away at that, her backpack bouncing on her like it's totally empty. I turn and walk the other way. My class is way out in the trailers.

I miss the late bell; Kristi texts later that she doesn't. That's life.

**3:45 p.m.**

"I want to go to the pool!" He's whining again. He's always whining when he wants something.

"Well, I don't want to go to the pool. And since you can't go without someone to watch you, looks like you're not going."

Kristi is walking a little ahead of us. She drifts off anytime Andy talks.

"Once this once!"

"What?" I look down at him and see that he's trying very hard to win me over. The juice-box stains around his mouth make him look like a baby. He stops scowling.

"Once this once. Once this once."

His lisp makes this sentence even worse than it should be. *Yes, repeating it helps a lot. Great.* Kids are so stupid that I don't know why anyone has them.

"I think you mean 'Just this once.' And the answer is still no. Because I take you all the time, so it isn't once. Could you not bother me to death, please?"

He's only six. I hate disappointing him. I know he'll be bored at home, but I can't spend another night dragging him out of the pool after dark while he screams at me.

Last time, I couldn't get him to leave until after nine. The water was warm and the night air was cold. No towels. No reason to go home. Finally I just walked out, shivering, by myself and told him I was leaving without him. He caught up to me a few minutes later, crying.

The scowl is back. "You're mean. You're mean and you don't care about anybody but yourself!"

"Okay, whatever, Andy." I jog a little and catch up to Kristi.

"So, what are you doing tonight?" She's doing that thing where she's listening to me talk but staring at her phone. I never know if she's hearing me or not.

"I don't know. My stepdad is gonna be home, so I'll probably hide out in my room. Since I don't have anywhere else to go." She looks away from her phone just enough to show me her face arranged along

beautifully sad lines, tragic like an Insta model who's lost her sponsorship. Then she goes back to it, her face blank.

I don't say anything. My solid strategy.

"What are you gonna do?"

"Homework," I lie. All my homework is done, and she's gone.

Andy catches up, and we go through the iron gate to our apartment complex. Once upon a time we shared a key to get in, but the lock broke more than a year ago. The hinges screech and the springs slam the gate shut behind us. We walk around the stucco corner, trotting a little faster with home coming into view. Andy goes up the stairs first, as always. We've figured out how to do this fast and never be seen. He gets to the top and looks around while I come up behind. The coast is clear.

He climbs on the black banister and leans out over the gap between the stairs and the building. It's about a foot wide, and the drop is two stories. I don't think either of us can slip through, but the fear is real every time. Andy tugs at the window and it slides over, knocking the blinds around. He shoves his backpack through, and we hear it hit the floor. Then he lifts one knee up onto the air conditioner just below the window. I boost him up the last foot and a half, and he goes through the blinds into the dark.

I toss my backpack in after him and look over my shoulder again. Still clear. I push up on the banister and lay my belly across the AC unit. I pull with both hands to slide over the windowsill, which hurts from the band of my training bra down to my knees, and slip headfirst to the floor. I stand up, blinking until my eyes adjust, and close the window. I wait until the blinds stop swinging and then go to find the hurricane lantern. It's a tall glass old-school lamp that works through the surface tension of its fuel and the capillary action of its wick. It's kind of cool, but I wish I didn't need it.

It doesn't slosh when I shake it. Out of lamp oil.

I feel around to find the candle I left in the kitchen. I turn on the stove to light it, but nothing happens.

Sighing, I make my way carefully to the couch. Somewhere at the edge of the dining room my foot slides into something mushy and slimy, like a banana a few days past ripe. I ignore it. I push my hands deep into the couch cushions and reject stale crackers and empty cigarette packs until I find what I was looking for.

One plastic BIC lighter. I push down the little button with my thumb, and it's the kind that flares straight up like a jet engine. I take it to the candle and light it, light all the ones I can find. I light the lamp after all, figuring that the wick is soaked enough to burn for at least a little while. I'm right.

Andy has a Fruit Roll-Up crammed in his teeth. I wonder what else is in the kitchen. "I want to watch TV."

"Yeah, well. Good luck with that."

He sulks, kicking something unseen. "Wanted to sing the pineapple song."

I wait until he's distracted and quiet enough to tiptoe away.

I go to our bedroom, headed straight for my secret hideout. A milk crate beneath the window, the glass covered with foil. The window open just enough. Hours of quiet on the other side. If he's bored enough, he'll find me. He might come looking for me any minute. I'm running out of time already. I need him distracted, and without the TV he won't be.

Screw it.

I turn my back on my spot and find him trying to pull a couple of tightly joined Legos apart. That might have kept him busy awhile, but the light is fading. Once he can't see, it's all over. Can't do anything then but go to bed, and he's not tired. I'm not tired. Well, not sleepy. We've got to do something else.

"Come on, Andy. Let's just go to the pool."

He jumps to get his trunks. I undress and pull on my blue thrift-store bathing suit, still wet from yesterday and cold enough to make me break out in gooseflesh all over.

We walk to the apartment-complex pool and get dinner from the vending machine there. We count our change and pick one short can of Pringles and one big bag of Twizzlers. We swim for hours, the pool water warm and cloudy, with pennies and secret surprise broken glass at the bottom. There's a little bit of Wi-Fi signal at the pool, so I tweet that I'm going night swimming. That sounds like something a normal kid would do, right? I leave my phone on a chair and swim with Andy, keeping him away from the deep end. We talk about how cool it is now that the gate that's supposed to keep the pool safe is broken and we can just step on the bottom rung to open it. We argue over who can hold their breath the longest and how fun it is to float on our backs. Nobody else is in the pool tonight, so it's just us. Still, we're careful.

We don't talk about our dark house where the lights don't work and the gas is definitely off again. We don't talk about how long it's been since the front door stopped opening, or how scared we are of the window climb every day. He doesn't ask me when Mom will be home, which is great because I have no idea.

*9:45 p.m.*

It isn't as much of a fight to get him out this time. I climb up the pool ladder and hug myself in the cold and tell him it's time. He comes up after a minute or two, hugging himself the same way. We can't see our breath, but our fingers are prunes, and his hair hangs pointy in his face like icicles. We don't have towels. We walk home like penguins, arms and legs tight together and straight, our backs to the wind.

I boost him through the window and then come up slowly, extra careful because I'm soaking wet and I have imagined myself falling like a thousand times. I don't fall, but the corner of the AC unit leaves a long, angry scratch down my bare thigh. I look at the beads of blood welling up, wondering if the chlorine on my skin is enough to disinfect. Blood, bacteria, uncertainty. That's life.

I only light one candle this time. We drop our wet suits on the floor and scavenge something to sleep in. I come up with a big shirt covered in soda logos; he finds a pair of underwear or shorts. It's impossible to tell which and hard to care.

We slowly climb up the ladder to my loft bed, each of us using one hand. I have the candle, he has a book. He reads aloud to me like we do every night, and I trace the pattern of spaceships on the mattress, thinking about adventures somewhere else. We each huddle under our own blanket, and he laughs at the funny parts of his book. He still doesn't ask when she'll be home.

I guess he doesn't care anymore, either.

*Tuesday 2:56 a.m.*

I think that was her. I hold my breath for a minute. The candle's out, and Andy didn't wake up. I hear the snick of the lighter, smell the smoke a minute later.

Mom's home.